

## 4.3 MANAGEMENT POLICIES

### Strategies & Schedule



#### MANAGEMENT POLICIES & STRATEGIES

#### SCHEDULE

1998/99

#### SPORTS CATEGORIES

- |                                   |                             |
|-----------------------------------|-----------------------------|
| (1) International Representative. | (6) Local Club Competition. |
| (2) National Representative.      | (7) School Competition.     |
| (3) State Representative.         | (8) Corporate Activities.   |
| (4) Regional Representative.      | (9) Social Competition.     |
| (5) Local Representative.         |                             |

#### CARRYING CAPACITY INDEX (CCI)

Based on the information provided by the ATRI and Council's booking schedule the total number of permissible games for the 1998 winter season shall be:

- |  |            |
|--|------------|
| (1) For Saturday competition matches per winter season:  | 70         |
| (2) For Sunday competition matches per winter season:  | 70         |
| (3) Permissible number of additional games:  | 60         |
| (4) Carrying Capacity Index (CCI) for the 1998 winter season:  | <u>200</u> |
| (5) Conditional permissible excess above CCI to be (7%) of the annual CCI.   |            |
| (6) Carrying Capacity Index to be reviewed in September of each year. Any initial reduction to the CCI should be equitably distributed across all Sports Categories (Refer to Operational Strategies - Winter Season). |            |
| (7) It is preferable that Item (3) be comprised principally of Sports Categories 1,2,3,7,8 or 9.   |            |

Continued Over

**Conditions Relative to CCI Excess**

The following terms and conditions to apply relevant to the CCI:

- (1) To ensure the sustainability of the Oval and its resources from 1998/99 financial year onwards additional fees and charges are to apply to all users excluding schools once the maximum CCI has been attained. The fee for each excess games shall be the current annual fees and charges rate adopted by Council plus 75% excess charge on the total amount payable and a minimum of \$2,500 damage deposit.
- (2) It is preferred that no one organisation be permitted to book the field more than two days at a time and should not be permitted to book the entire permissible excess number of games. This is to be monitored by the officer responsible for the booking of the Oval and the groundsman.
- (3) To preserve the excess carrying capacity at Coogee Oval for essential use, where appropriate and at the discretion of the Council officer responsible for the park booking system, a number of games should be diverted to either Snape Oval, Maroubra or Kensington Oval, Kensington to ensure a relatively equal distribution of impact loads across the three Oval's.

**1998 WINTER SEASON - WESTERN PLAYING FIELD**

The following schedules and categories apply to winter seasonal bookings, one-off and excess in season bookings. The schedule does not apply to out of season bookings the latter to be determined by the officer responsible for the booking of the Oval.

<b>Mondays:</b>	Oval to be closed for maintenance. Category (6) permitted on public holidays.
<b>Tuesdays:</b>	Oval to be generally closed for maintenance. However, permissible use equal to or above category (5).
<b>Wednesdays:</b>	Preference category (7). Permissible above and equal to category (9).
<b>Thursdays:</b>	Preference category (7). Permissible above and equal to category (9).
<b>Friday:</b>	Oval to be closed for preparation for weekend events.
<b>Saturday:</b>	Preference category (6). Permissible above and equal to category (5).
<b>Sunday:</b>	Preference category (6). Permissible above and equal to category (5).

**1998 /99 SUMMER SEASON - WESTERN PLAYING FIELD**

<b>Mondays:</b>	Oval to be closed for maintenance. Category (6) permitted on public holidays.
<b>Tuesdays:</b>	Permissible categories (8) and (9).
<b>Wednesdays:</b>	Preference category (7). Permissible categories (1), (2), (3), (4) and (5).
<b>Thursdays:</b>	Preference category (7). Permissible categories (1), (2), (3), (4) and (5).
<b>Fridays:</b>	Oval to be closed for preparation for weekend events.
<b>Saturdays:</b>	Preference category (6). Permissible above or equal to category (5).
<b>Sundays:</b>	Preference categories (6), (8) or (9).

<b>Definitions:</b>	<i>Winter season</i> shall mean from the 1st April to end of August of each year. <i>Summer season</i> shall mean from 1st September to 31st March of each year.
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Continued Over

## STRATEGIES

- (1) Unauthorised competitive team activities, whether social or organised by clubs, associations, etc are prohibited on the western playing field during the winter season. Signs to this effect are to be installed around the Oval. Council Rangers to enforce compliance by removing unauthorised users from the field.
- (2) Use of the eastern playing field to be at the discretion of the groundsman and the officer responsible for the booking of Council's parks and reserves.
- (3) In the winter season the western playing field (competition field) is unavailable for training purposes.
- (5) In the winter season the eastern training field is to be made available for training purposes. The level of training on this field after 1st August of each year should rapidly decrease and is at the discretion of the groundsman and the officer responsible for the booking of the Oval.
- (6) Regulation rugby code match play footwear only is permitted on the western playing field during winter.
- (7) Training or the practice of sports on the cricket wicket is prohibited.
- (8) Preference to be given to setting aside one only wicket for category (8) and (9) users. Alternatively, wickets for category (8) and (9) to be at the discretion of the groundsman on duty on the day of play.
- (9) The Oval is not to be permanently enclosed or enclosed for extended periods other than for maintenance works. Other than for maintenance works the duration of any closure of the oval to be at the discretion of the officer responsible for booking the Oval.
- (10) Large amplified music concerts, fetes, markets, Mardi Gras and other similar events or activities on the playing field should be avoided.
- (11) Any club, individual, organisation or other party carrying out any unauthorised works, alterations, additions or otherwise within the Oval without the expressed written permission of the Director of Engineering Services will be prosecuted in accordance with the Local Government Act, 1993.
- (12) All personnel, other than Council employees, appointed to perform maintenance, repairs or other works on any of the sports facilities and associated buildings, structures and alike are to report to the Groundsman or contact the Supervisor of Parks before commencing any works within the boundary of the Oval.
- (13) Encourage user groups to form the "Coogee Oval Advisory Group".

Continued Over

**SPORTS FACILITY LICENSING, LEASING & PERMITS**

- (1) Leasing of the Oval is not permitted.
- (2) Licenses not to exceed five years.
- (3) The option to extend long term and seasonal license agreements is unavailable. Under these circumstances new applications are required.
- (4) Seasonal licenses and daily permits to be available for the hiring of the Oval.
- (5) All applicants for the use of the sports fields are required to complete either one of the following "Notice of Intent" application forms:
  - Public Open Space Casual Hire - for events other than seasonal sports event hire, or
  - Sports Parks & Reserve - for seasonal bookings of the reserve for sports events (Refer to Appendix 1).
- (6) Licensing clauses should include monitoring devices such as financial audits and user surveys to determine cost-benefits to the community and level of acceptable and reasonable subsidisation.
- (7) Applicants not having adequate public risk liability insurance are to be excluded from using the Oval.
- (8) The David Sherwood Committee Room and not more than 25% of the available seating area in the Cyril Towers Grandstand may be set aside under a seasonal license agreement or daily permit.
- (9) Council is to be the sole booking agent for the use of the sports fields and facilities. Unauthorised use of the sports fields and facilities will result in both the user and any third party organisation that consented to that unauthorised use to be:
  - prosecuted in accordance with the Local Government Act, 1993.
  - liable for all fees and charges.
  - liable for all restoration costs;
  - excluded from any further use of the venue until such time as Council makes a determination on their future access rights.
- (10) Any activity that places a negative impact, such as the placing of structures such as marquees, temporary grandstands etc, on the cricket wicket is prohibited.

Continued Over

**FEES & CHARGES**

- (1) Increase the fees and charges for the use of the playing field from 1998 to 2001 by 8% annually after which Consumer Price Index to apply.
- (2) Variations to original bookings other than cancellations due to inclement weather or notification of cancellation received less than 7 days prior the event to incur an administration fee of 20% of the original fee paid by the applicant.
- (3) An extension to either the Winter and Summer Sports Season for their respective sports activities should, generally, not be available. This will permit the playing field time to recover between seasons. As previously stated, each season is to be defined as follows:
  - Winter season shall mean from 1st April to the 31st August of each year.
  - Summer season shall mean from 1st September to the 31st March of each year.
- (4) Any proposed extension to the season should only be considered for Sports Categories (1), (2) and (3). No other categories should be permitted at the conclusion of a particular season. If required, and if feasible, other sports categories should be directed to other venues. However, out of season sports activities are not to be permitted at in season sports venues where:
  - the booking will result in an in season sports activity being relocated, cancelled or postponed.
  - the out of season activity will impact on the quality of the venue, including its playing surface, for any current season sports activity.
  - there will be a delay in implementing essential end of season field maintenance works.
- (5) Where an out of season sports activity is permitted to be played at a sports venue then the following fees and charges are to apply:
  - (a) The general fee for the hiring of the venue for that particular type of activity relevant to the season the sport is generally played plus 75% of the booking fee towards additional maintenance requirements.
  - (b) The installation and removal of goal post \$250 per playing field.
  - (c) The line marking of the playing area \$150 per playing field.
  - (d) Additional fees and charges will be incurred for other services requested by the applicant.
- (6) The groundsman and the officer responsible for the booking of the sports field and associated facilities will evaluate each application and designate the number of games permissible relative to the adopted CCI.

Fees and charges for Items 1 to 4 are to be reviewed annually as part of Council's annual review of its Management Plan.

Continued Over

**Wet Weather:**

- (1) At its discretion, Council reserves the right to close the playing field.
- (2) Determination as to the suitability of using the playing field or cricket wicket during or after adverse weather conditions is the responsibility of the Groundsman in consultation with the Overseer or Superintendent whose decision will be final. The senior officer to provide a report to the Director of Engineering Service (Refer to Appendix 2).
- (3) Assessment to close the playing field should be based on the need to protect the playing field from excessive damage and should include the following criteria:
  - water saturation levels in the soil,
  - the extent of water ponding on the playing surface as a percentage of the total playing area,
  - the measure of rainfall relative to the total hours of rainfall within 24 hours before the commencement of match play.
  - the estimated drainage rate,
  - the perceived impact of the proposed use on the playing field for the remainder of the season.

The cited criteria to be quantified by appropriate measures and recordings overtime.
- (4) Where possible, alternative venues should be sought by the groundsman, however, the groundsman is not responsible for the resiting of the event.
- (5) Any club, association, corporation or other organised groups using the Oval when it has been closed by Council will be:
  - prosecuted in accordance with the Local Government Act,
  - liable for all fees and charges.
  - liable for all restoration costs;
  - excluded from any further use of the venue until such time as Council makes a determination on their future access rights.

Continued Over

**ADVERTISING**

- (1) Permanent advertising is not permitted on any part of the Oval or playing surface.
- (2) Temporary advertising is not permitted on the fences within or on buildings or near exit and entry points.
- (3) Temporary advertising is to be directed internally focusing on patrons within the Oval.
- (4) Cigarette advertising is prohibited.
- (5) Certain types of commercial promotional displays, such as placing new motor vehicles in the spectator areas or on the sports fields during sports events is not permitted.

**EAST WARD SENIOR CITIZENS CLUB****Licensing & Leasing**

- (1) Council to enter into a temporary license agreement for the use of the community building sited on Brook Street, Coogee currently used by the East Ward Senior Citizens Club until such time as the building is demolished.
- (2) Council to review its management options and incorporate appropriate accountable management structure and systems.
- (3) Where Council chooses to enter into a new licence agreement for the use of the new community centre then such an agreement should not exceed more than five (5) years.
- (4) Licensing and lease clauses should include monitoring devices such as financial audits and user surveys to determine cost-benefits to the community.
- (5) Council should strive to achieve self funding for the centre but should this objective be unattainable owing to the nature of the services offered and it use then Council is to establish an acceptable and reasonable percentage of maintenance costs as its level of subsidisation.
- (6) Fees and charges for the hiring or use of the centre should be established relative to the projected cost-benefit to the community.

**Management & Marketing**

- (1) Council to prepare a Management and Marketing Plan for the centre. The plan should address the need for new management structures, procedures and accountability measures for the management and operation of the centre. In addition, the plan should identify sources of funding for the construction of the centre.

Further reference should be made to the document prepared by Local Government and Shires Association of NSW entitled *"Managing Seniors Centres: A Management Kit for Councils."*

- (2) Council to undertake research to identify community needs relative to the current and future use of and Architectural design of the proposed new centre.

Continued Over

**ENERGY RESOURCE MANAGEMENT**

When planning and designing new or when upgrading existing buildings and structures seek to:

- (1) Minimise the use of new building materials and resources where practicable.
- (2) Recycle materials at a future date.
- (3) Respect the site, its opportunities and constraints e.g.
  - ▶ where feasible, correct solar orientation of new buildings and/or their high usage areas,
  - ▶ correct size and positioning of windows,
  - ▶ use of energy efficient building materials,
  - ▶ use of correct insulation, draft proofing and weatherstripping.
- (4) Utilise climatic factors to advantage and natural energy resources e.g.
  - ▶ utilise cooling north-east summer sea breezes by channelling and controlling airflow currents through designated ventilation paths to maximise the desired effect,
  - ▶ capture solar energy and light for heating and lighting purposes,
  - ▶ reduce, deflect or eliminate solar heat infiltrating the building during the height of the summer months.
- (5) Reduce the use of fossil fuel energy resources.
- (6) Utilise native vegetation to provide shade and cool areas around buildings and outdoor rest and play areas.
- (7) Carry out an energy audit to identify areas of potential savings.

**GREENHOUSE EFFECT**

Monitor climatic changes and its influence on the park's environment and visitor comfort levels.

**PUBLIC CONSULTATION**

Maintain communication links with the Coogee Bay Precinct Committee and principal user groups.

Continued Over



**NATIVE TITLE**

On any future notification from the Native Title Tribunal that a claim is to proceed under the Native Title Act then Council to notify the Tribunal that it wishes to become a party to the application.

**INTEGRATION OF THE RESERVES**

Consolidate Coogee Oval into the proposed "Coogee Coastal Parklands" network as proposed for Coogee Beach and its foreshore areas as described in the Coogee Beach & Foreshore Draft Plan of Management.

Remove category "Special Use for Senior Citizens" and rezone Portion 1496, Crown Reserve 82568, Recreation 6A.

Seek the approval of the Minister responsible for the administration of the Crown Lands Act, 1989 and the associated regulations to have Portion 1496, Crown Reserve 82568, integrated into the Coogee Oval open space system. That is, that the land to be held in fee simple by Council.

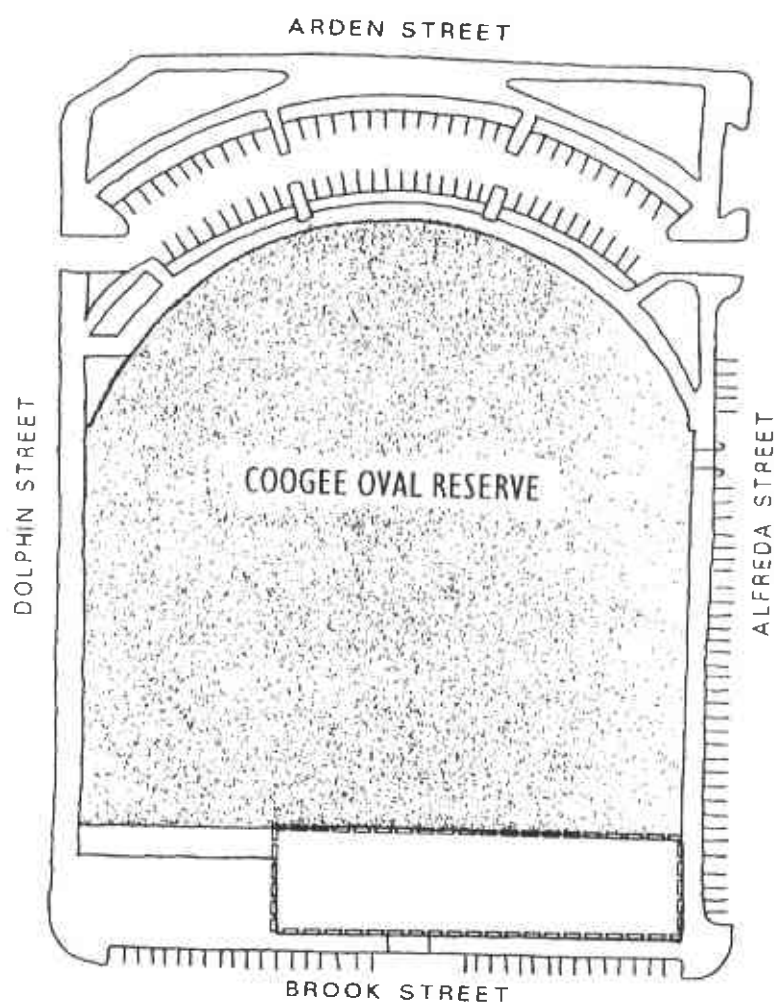
**COMPLIANCE WITH STATUTORY LEGISLATION & COUNCIL PLANNING CONTROLS**

- (1) Ensure development complies with relevant statutory legislation and Council planning controls including those adopted in the plan of management.
- (2) Undertake random noise monitoring programs for the use of the public address system to ensure compliance with appropriate legislation.
- (3) Provide more effective enforcement of the Dog Act, 1966 and Dog Amendment Act, 1988.

Continued Over

**RECREATION BUILDING DEVELOPMENT ZONES**

Restrict future buildings construction work to the western side of the Oval. Ensure that new works do not unreasonably obstruct residents views over the Oval.

**COOGEE OVAL RECREATION  
BUILDING DEVELOPMENT ZONES**

Key  
RECREATION BUILDING  
DEVELOPMENT ZONE

**LANDSCAPE FURNITURE & FINISHES**

- (1) Furniture and finishes for the Oval and its perimeter area should generally conform to the design intent applicable to Coogee Beach and foreshore. Provision should be made in Council's "Manual of Landscape Furniture and Finishings - Code of Practice" for retention of the Oval's 1920's character by ensuring a design principal that complements that period.
- (2) Retain and extend the picket fencing around the Oval.
- (3) Remove and replace the existing screen metal storage boxes along Dolphin Street with a more compact durable design storage unit that reduces the visual impact on the streetscape  
(At the cost to the principal benefactor(s) of entry fees. Item to be a condition of any license agreement)

**LANDSCAPE ARCHITECTURE**

- (1) Amenity plant selection for the Oval and its perimeter area should conform to the design intent applicable to Coogee Beach and foreshore.
- (2) Ensure all street plantings are as recommended in Council's Street Tree Master Plan.

**MANAGEMENT OF ALCOHOL DISTRIBUTION**

To control the sale and consumption of alcohol within the reserve:

- (1) Prohibit alcohol being brought into the Oval.
- (2) Permit the sale of alcohol by licensed park user groups on site.

Continued Over

**GENERAL**

- (1) Annual joint inspection and report to be carried out and prepared for the playing field. The inspection team to consist of one representative of each principal seasonal user group and Council officers.

The first priority of the inspection team is to establish an agreed minimum acceptable standard for the playing field relative to budget allocations for each respective season.

- (2) Ensure public toilets within the Oval are kept in good condition and clean and tidy at all times.
- (3) Where appropriate use anti-graffiti paints.
- (4) Encourage local residents to report incidents to Randwick Police and or Council Rangers. Distribute information brochures to local residents on contact telephone numbers and procedures for reporting incidents .

**TURFGRASS MANAGEMENT**

Review the current maintenance schedule to include, where budgets permit, the recommendations for the following submitted by the ATRI, Refer to Appendix 3.

**Improve:**

- ▶ Mowing practices
- ▶ Renovation
- ▶ Fertilising
- ▶ Top Dressing
- ▶ Irrigation
  - Water Pump
  - Sprinkler System
- ▶ Pest Control
- ▶ Plant Growth Regulator Use
- ▶ Winter Over Sowing
- ▶ Maintenance Equipment
- ▶ Technical Information & Staff Training.

Continued Over

(1) *Water Quality*

Undertake chemical and biological quarterly sampling to monitor each storage well content.

(2) *Pesticide Applications*

Ensure manufacturers recommendations for withholding periods are implemented following pesticide application.

(3) *Public Address System*

Extend the public address system to the eastern side of the playing field (If Item is required then to be installed at users costs).


## 4.4 CAPITAL WORKS

### Strategies, Costs & Priorities

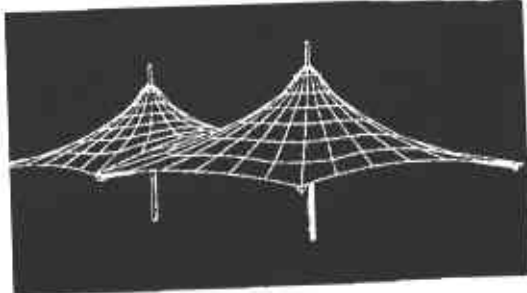


CAPITAL WORKS PROGRAM		
STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
(1) Prepare a Landscape Master Plan for Coogee Oval giving consideration to the design principles outlined for the Coogee Beach and foreshore.	15,000	A
(2) Annually inspect and prepare a detailed property report on the condition of each building, structures as well as the irrigation system within the reserve.	300	A
(3) Prepare an annual preventative maintenance and inspection program for each of the following: <ul style="list-style-type: none"> <li>▶ each building within the reserve.</li> <li>▶ the irrigation and electrical systems operating within the reserve.</li> <li>▶ powered maintenance equipment used at the reserve.</li> </ul>	300	A
(4) Provide additional labour for the transition period between the winter and summer seasons to assist in the preparation of the cricket wickets at the City's three Oval's.	10,000	A
(5) Construct an events bulletin board inside the Oval fencing near the entrance facing out into Brook Street.	400	A
(6) Install appropriate park management signs.	300	A
(7) Install turnstiles at the Oval's entrance with entry counting devices.	20,000	A
		Continued Over

# CAPITAL WORKS PROGRAM

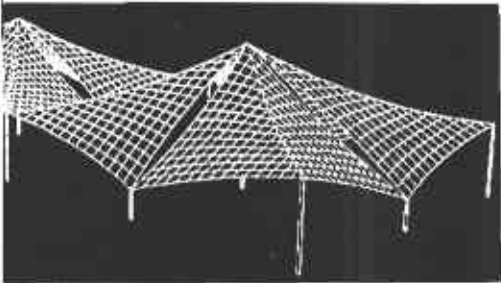
STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
<p>(8) Program health and safety audits at Coogee Oval to assess work practices, processes and procedures, building, fixtures and fittings and chemical storage area.</p> <p>(a) Ensure employees participation in audit processes.</p> <p>(b) Record the results of each audit in Council's health and safety management system to:</p> <ul style="list-style-type: none"> <li>Plan and implement hazard elimination by ensuring correct work practices, processes and procedures are carried out and maintained.</li> <li>Detect and eliminate potential and existing health and safety hazards in buildings, fixtures and structures within the reserve or on its boundaries.</li> <li>Monitor, review and fine tune the hazard elimination activity.</li> <li>Provide a site specific audit schedule.</li> </ul>	500	A
<p>(9) Install a new water pump unit and filter system.</p>	13,000	A
<p>(10) Install new automatic pop-up sprinkler system.</p> <p>NOTE: For Items (8) &amp; (9) reference should be made to the document entitled "Coogee Oval Irrigation System Specifications, Hydro-Plan, March, 1997)</p>	38,000	A
<p>(11) Introduce environmental education signs for visitors to the Oval to encourage the recycling of appropriate waste material and improved personal litter management.</p>	400	A
<p>(12) It is recommended that the East Ward Senior Citizens Club building be demolished and on the same site reconstruct a multipurpose community centre.</p>	350,000	A
<p>(13) Prepare an Architectural Design Criteria for the park and its buildings based on a 1920's architectural theme.</p> 	To be included in the above expenditure	A

# CAPITAL WORKS PROGRAM


STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
(14) Extend the vehicle access to the Oval in Alfreda Street by 1 metre to accommodate heavy vehicle entry. Construct a 5 metre wide vehicle crossing.	3,500	A
(15) Install traffic control nibs to prohibit illegal vehicle parking on either side of the access way.	3,500	A
(16) Construct approximately 114 metres of pedestrian footpath on the northern side of Alfreda Street.	7,800	A
<p>(17) Install protective fabric Polyvinyliden Fluoride (PVDF) architectural grade membrane shade cover over approximately one quarter of the existing outdoor seating near the television tower.</p> <ul style="list-style-type: none"> <li>Ensure vision is not obstructed from the spectator area to the south, the grandstand and the mound north of the tower behind the seating.</li> <li>Ensure fabric has: <ul style="list-style-type: none"> <li>(a) a wind rating of &gt;120 km/hr;</li> <li>(b) an architectural grade rating;</li> <li>(c) a resilient protective cover;</li> <li>(d) high resistance to wear, pollution and salt air;</li> <li>(e) low maintenance requirements;</li> <li>(f) resistance to colour alteration.</li> </ul> </li> </ul>	15,000	A
 <p>Example of Spectator Shade Covers</p>		Continued Over



# CAPITAL WORKS PROGRAM

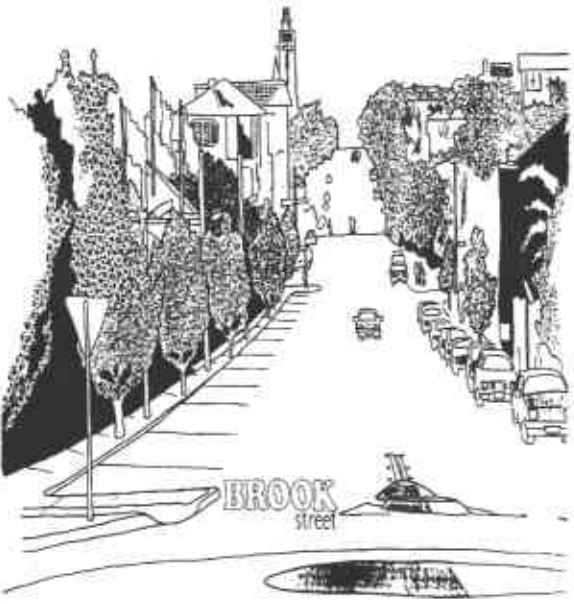
STRATEGY		CAPITAL COST \$	SCHEDULE PRIORITY
(18)	Ensure wheelchair access to the pedestrian pathways and throughout the new community centre to be built on the site.	500	A
(19)	Between the main entrance to the Oval and the community centre, on the eastern side of Brook Street, dedicate a minimum of two vehicle car parking spaces for use by disabled persons.	1,500	A
(20)	Construct a wheelchair accessible platform in the enclosed spectator area on the western side of the Oval.	5,000	A
(21)	Ensure wheelchair access throughout any new community centre and where appropriate throughout the Oval and playground.	1,500	A
(22)	Provide angle vehicle parking on northern side of Dolphin Street between Brook and Melody Streets.	20,000	A
(23)	Provide angle parking on eastern side of Brook Street between Coogee Bay Road and Carr Street, Coogee (Part of 1997/98 budget for road works estimated cost \$200,000).	Not included in these estimates)	A
(24)	Install three (3), maximum four hour limit ticket parking metres in the reserve's eastern car park to service all the available parking facilities. Funds raised to contribute to the upkeep of the reserve.	50,000	A
(25)	Adopt a durable and attractive design criterion for waste disposal/recycling enclosure.	2,000	A
(26)	Locate litter and recycle bins for glass, aluminium and plastics in an accessible and visually predominant place within easy distance from major facilities. Promote recycling.	600	A
(27)	Enclose the childrens playground, provide safety lock gate, enhanced seating, bubblers and controlled access to the Oval.	18,000	A
(28)	Construct a pergola type shade cover over the playground area.	18,000	A
			
Example of Shade Structure			Continued Over

# CAPITAL WORKS PROGRAM

STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
(29) Construct appropriate park signage identifying Coogee Oval Reserve on the corner of Dolphin and Arden Streets, Dolphin and Brook Streets, Alfreda and Arden Streets as well as Alfreda and Brook Streets.	1,500	B
(30) Install a street sign indicating the direction to Coogee Oval at the intersection of Coogee Bay Road and Brook Street and Alison Road and Brook Street.	200	B
(31) Design a logo for Coogee Oval to assist in the promotion of Coogee Oval, beach and the foreshore areas.	100	B
 <p data-bbox="499 1308 699 1335">Sample Design Logo</p>		
(32) Returf the entire playing field with Kikuyu grass sod in maxi roll form.	171,000 Inclusive of Items 32 to 34	B
(33) Resurface the cricket wicket table.		
(34) Install slit drain at a spacing of 2 metres. Install extra drainage around the perimeter of the cricket wickets.		
(35) Carry out a heritage and conservation study for the Cyril Towers Grandstand.	10,000	B
(36) Install low intensity movement sensitive solar powered security lighting around the buildings and low intensity solar powered hooded security lighting focused on the centre of the Oval.	30,000	B

Continued Over

# CAPITAL WORKS PROGRAM

STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
(37) Remove approximately 83 metres of wooden paling fence along the southern boundary of the reserve along Alfreda Street. Install 1800mm metal picket fence.	40,000 (Cost includes items 37, 38 & 39)	B
(38) Remove approximately 95 metres of arris rail and pipe fencing on the northern boundary of the Oval along Dolphin Street. Install 900mm metal picket fencing on the boundary line of the Oval.		B
(39) Plant hedges along the Alfreda Street fence line.		
(40) <i>Brook Street</i> Extend street tree planting north of Dolphin Street.		
(41) Undertake street tree planting along:  (a) <i>Dolphin Street</i> (b) <i>Arden Street</i> (c) <i>Alfreda Street</i>	\$52 per plant (Cost includes tree grate & tree guard. Includes Items 40 & 41). Up to 4,000	B
		Continued Over

CAPITAL WORKS PROGRAM		
STRATEGY	CAPITAL COST \$	SCHEDULE PRIORITY
(42) Install an electronic scoreboard at the existing location of the manual scoreboard with facilities to display the results of rugby code and cricket scores and a game time clock. (Priority dependent on the availability of additional external funding).	Up to 20,000 Investigate shared costs between user groups/ Council/ State grant	B
(43) Remove and replace the kerb and guttering on the northern side of Alfreda Street. Improve the road shoulder.	50,000	C
(44) Landscape the entrance of Alfreda and Brook Streets.	15,000	C
(45) Install backrest on existing tier seating.	2,000	C
(46) Install cycle security racks in the parkland at the corners of Brook and Dolphin Streets, Arden and Alfreda Streets.	4,000	C
TOTAL ESTIMATED COSTS CAPITAL WORKS "A"	\$595,100	
TOTAL ESTIMATED COSTS CAPITAL WORKS "B"	\$276,800	
TOTAL ESTIMATED COSTS CAPITAL WORKS "C"	\$ 71,000	
TOTAL ESTIMATED COST PROJECT COSTS	\$942,900	—

#### 4.5 MONITORING THE PLAN

The detailed hindsight that is provided from post impact monitoring and the related activity of management auditing will assist Council in assessing the outcomes relative to environmental impacts, management and marketing decisions.

The proposed monitoring system will provide the best means to ensure continued improvements to management practices. This will ensure that, where possible and feasible, the desired outcomes are achieved and at the same time assist in understanding why others fail or may not be desirable in the long term.

The plan of management has adopted the Visitor Monitoring Impact Management System (Manidis

Roberts, 1994) to monitor the management of the reserve. The principal features of the system are as follows:

- (1) the utilisation of low cost primary indicators which are used to monitor and detect change;
- (2) a description of the preferred conditions which provide a "yardstick" for the primary indicators;
- (3) recommendations to be initiated in response to identified negative impacts on the reserves environment and its resources.

## 4.6 MONITORING SYSTEMS

### COOGEE OVAL



## MANAGEMENT & ADMINISTRATION

Factor	Viable Indicator	Preferred Condition	Monitoring Factor	Optional Response
Licenses, leases, permits and other legal agreements as entered into with Council.	Fulfilment of legal agreements terms and conditions.	Adherence to agreed terms and conditions of legal agreements and the plan of management.	Annual review of status and appropriateness in meeting the terms and conditions of legal agreements.  Park Visitor Survey.	Impose penalty clauses.
Fees and charges.	Range of identified socioeconomic users of the reserve.	Equitable access.	Park Booking System.  Relevant market pricing.	Annually review pricing strategy.
Daily Management.	Degree of visitor satisfaction.	55-65% satisfaction level.	Park Visitor Survey.	Review maintenance expenditure and income.  Review maintenance resources.  Continued Over

## ENVIRONMENT & ENERGY MANAGEMENT

Factor	Viable Indicator	Preferred Condition	Monitoring Factor	Optional Response
Soil Management	Soil moisture, chemical and nutrient levels.  Condition, spread and density of turfgrass cover.	Soil composition and compaction within acceptable standards.  Consistent level of turfgrass cover.	Visual inspections. Soil test results.	Response dependent on need.  Groundsman's attendance at appropriate seminars.
Drainage Management	Level and extent of flooding.	No excessive ponding.	Visual inspections. Soil compaction tests.	
Turfgrass Management	Condition, spread and density of turfgrass cover.	Good condition, spread and density of turfgrass cover.	Visual inspections.	
Turfcricket	Moisture and compaction levels of the playing surface.  Grass cover.	High quality playing surface.	Registered visual inspections before and after match play by respective cricket captains and umpire.	
Water & Irrigation	Condition of the vegetation and turfgrass cover.	Vegetation and turfgrass cover in good condition relative to spread, colour and leaf appearance.	Visual Inspections. Aerial photographs. Soil tests.	
Greenhouse Effect	Negative impacts on the environment.	Low public health risk.	Type and extent of climatic changes and impact on public health.	Response dependent on need.
Energy Resource Management.	Level of energy use and maintenance costs.	High number of installations of environmentally sustainable energy units.	Low energy use and energy maintenance costs.	Energy audit.
Noise Pollution.	Number of residents complaints.	The noise level of the public address system within legal limits.	Noise monitoring.	Instigate random noise monitoring. Impose fines.  Continued Over

## *PARK PLANNING, BUILDING & LANDSCAPE ARCHITECTURE*

Factor	Viable Indicator	Preferred Condition	Monitoring Factor	Optional Response
Integration of the Reserve	Ownership of the land transferred from Crown Lands to Council.	Council ownership.	Transfer of ownership.	Council to resolve to accept ownership of the land.
Statutory Legislation and Planning controls	Compliance with Statutory Legislation and Planning controls			
Recreation Building Development Zones	<p>Resident &amp; park visitor satisfaction.</p> <p>Quality &amp; relevance of any new proposed development(s) relative to Council's Planning Scheme and appropriate legislation.</p> <p>Compliance with the defined purpose of the park.</p> <p>Impact on the open space by further alienation of public land.</p> <p>Assessment of the need to duplicate existing regional, commercial or community organisation facilities.</p> <p>Tests accepted by the High Court &amp; Land and Environment Court.</p>	<p>Community satisfaction with any proposal.</p> <p>Low impact on the integrity of the park and its purpose as a place for the enjoyment of recreation.</p>	<p>Resident &amp; Park Visitor Survey.</p> <p>Public consultation.</p>	<p>Dependent on the outcome of public consultation - seek a win-win solution.</p> <p>Adherence to legislative requirements and test accepted by the appropriate courts.</p>

Continued Over

Factor	Viable Indicator	Preferred Condition	Monitoring Factor	Optional Response
Architecture & Heritage	<p>Resident &amp; park visitor satisfaction with the design and amenity of any proposed development.</p> <p>Relevance of any proposed building to the adopted Architectural Design Criteria.</p> <p>Impact on the integrity of the park and its surrounds.</p>	<p>Resident and park visitor satisfaction.</p> <p>Adherence to adopted Architectural Design Criterion.</p> <p>No adverse impact on the integrity of the park and its purpose.</p>	<p>Resident &amp; Park Visitor Survey.</p> <p>Expert assessment.</p>	Adherence to the adopted planning scheme(s).
Visitor Facilities & Amenities	Park visitor satisfaction.	Park visitor satisfaction.	Park Visitor Survey.	Address identified needs and demands as permitted within the budget.
Landscape Architecture	<p>Adherence to the adopted: Landscape Master Plan for the Oval.</p> <p>Randwick Street Tree Master Plan.</p> <p>Manual of Landscape Furniture &amp; Finishings.</p>	Resident and park visitor satisfaction.	<p>Landscape Master Plan for the Oval.</p> <p>Randwick Street Tree Master Plan.</p> <p>Manual of Landscape Furniture &amp; Finishings.</p>	Adherence to the adopted planning scheme(s).





# NOTICE OF INTENT

## Public Open Space Casual Hire

TO AVOID DELAYS to your proposal please read each Part carefully.

### PART 1

#### APPLICANTS INFORMATION

Please print clearly all information: Contact Person: ..... Title: .....

Organisation Name: .....

Address: ..... Postcode:

Telephone: ( ) ..... Mobile: ( ) ..... Facsimile: ( ) .....

24 hour contact telephone number ( ) ..... Name of Contact .....

### PART 2

#### PUBLIC RISK LIABILITY INSURANCE

Do you have Public Risk Liability cover ☐ YES or ☐ NO If "YES" to what sum \$.....

Public risk liability Receipt Number: ..... Telephone number of insurer: ( ) .....

Name of your insurance company: .....

Address: ..... Postcode:

### PART 3

#### DESCRIPTION OF PROPOSED ACTIVITY

Please tick (✓) the appropriate box(es) and circle the appropriate activity which best describes your event:

- |  |  |                                    |  |
|--|--|------------------------------------|--|
| <input type="checkbox"/> Private Social Function                         | <input type="checkbox"/> Private Profit  | <input type="checkbox"/> Charity   | <input type="checkbox"/> Commercial photography            |
| <input type="checkbox"/> Education                                       | <input type="checkbox"/> Arts / Cultural   | <input type="checkbox"/> Religious | <input type="checkbox"/> Promotion of a product or service |
| <input type="checkbox"/> Sport (circle: Amateur / Social / Professional) | <input type="checkbox"/> Commercial Filming ( circle: Feature / Non-Feature / Student) |                                    |  |

Other: .....

### PART 4

#### VENUE, DATES & TIMES

**Attach a map indicating the area within the park or beach where your activity is to take place.**

Please print Nominated Venue: ..... Do you have owners consent ? ☐ YES ☐ NO

	DAY	MONTH	YEAR		DAY	MONTH
First day at the venue (establishment)	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
Date(s) the actual event takes place:	<input type="text"/>	<input type="text"/>		to	<input type="text"/>	<input type="text"/>
Last day onsite (vacate):	<input type="text"/>	<input type="text"/>	<input type="text"/>			
Start and finish times of the event:	<input type="text"/>	<input type="text"/>	<input type="text"/>	am/pm	to	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	am/pm		

**PART 12****COUNCIL ASSISTANCE**

Please tick (✓) if this SECTION IS NOT APPLICABLE to your event

☐ if not applicable go to Part 13

Please tick (✓) the appropriate box(es) to indicate your requirements:

Council to provide

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Connection to on-site electricity              | <input type="checkbox"/> Use of on-site water        | <input type="checkbox"/> Additional Ranger Patrols |
| <input type="checkbox"/> Cleaning staff                                 | <input type="checkbox"/> Floodlights                 | <input type="checkbox"/> Beach Inspectors          |
| <input type="checkbox"/> Additional garbage bins and garbage collection | <input type="checkbox"/> Additional toilet cleaning. | <input type="checkbox"/> Groundsman staff          |

Extended public toilet opening and closing hours ☐ YES or ☐ NO

If required, extended opening hours for use of the public toilets ☐☐ . ☐☐ am/pm to ☐☐ . ☐☐ am/pm

☐ Other types of assistance required, please attach a written request to your application.

**PART 13****ENVIRONMENTAL ISSUES**

Will you supply:

Additional garbage disposal units? ☐ YES ☐ NO If "Yes" number of units ☐☐☐☐

Separate recycling bins for glass, aluminium, litter, etc ☐ YES ☐ NO

Additional portable toilets? ☐ YES ☐ NO If "Yes" number of units ☐☐☐☐

**Please provide a statement on how you propose to keep the area clean and tidy and implement noise control.**

**PART 14**

I have read and understood the application and have included all the required information relevant to my proposed event. I am aware that any of the information that is incorrect, misleading or where there has been an omission that will result in a negative impact on the environment or social setting of the site then the event may be cancelled and all fees and charges could be forfeited.

Signature of Applicant.....Date ☐☐/☐☐/☐☐☐☐

**OFFICE USE****PART 15**

Is the activity permissible under the Zoning YES ☐ or ☐ NO

Are any of the following required by the applicant ?

Section 68 form	YES <input type="checkbox"/> or <input type="checkbox"/> NO	<b>Council Notification</b>
Development Application	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Beach Inspectors YES <input type="checkbox"/> or <input type="checkbox"/> NO
Report to Council	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Ordinance Inspectors YES <input type="checkbox"/> or <input type="checkbox"/> NO
License terms & conditions	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Parks Superintendent YES <input type="checkbox"/> or <input type="checkbox"/> NO
Additional information required	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Groundsman YES <input type="checkbox"/> or <input type="checkbox"/> NO

**External Notification:** Applicant and Council to notify the following:

Police YES <input type="checkbox"/> or <input type="checkbox"/> NO	Ambulance YES <input type="checkbox"/> or <input type="checkbox"/> NO	Fire Brigade YES <input type="checkbox"/> or <input type="checkbox"/> NO
State Emergency Services YES <input type="checkbox"/> or <input type="checkbox"/> NO		Local Residents YES <input type="checkbox"/> or <input type="checkbox"/> NO

## PART 9

### ADVERTISING & MARKETING

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 10

Please tick (✓) the appropriate box(es) to indicate how your event will be marketed

☐ National ☐ Metropolitan ☐ State ☐ Eastern Suburbs

Banners across streets or roadways

☐ YES ☐ NO

Nominate the street(s) where the banners are to be placed: .....

Provide dimensions to the nearest metre of the proposed banner(s) WIDTH ☐☐m BY LENGTH ☐☐m

Enter the wording to be displayed on the banner .....

Is the activity to be televised or broadcast on radio or other media? ☐ YES ☐ NO

## PART 10

### TRAFFIC MANAGEMENT

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 11

Are any vehicle(s) required to enter public reserve/beach? ☐ YES ☐ NO

Are any streets to be closed during this event or activity? ☐ YES ☐ NO

If Yes so, please name the streets .....

How long will the street(s) be required to be closed for your event to take place ☐☐☐ TOTAL HOURS

Please provide full details of your proposed traffic and parking management (eg. Type of vehicles, where they are to be located, their function relative to the operation of the event, public parking management including any requirements for overflow parking) .....

..... Note: If necessary attach details on a separate sheet of paper.

## PART 11

### INSTALLATION & CONSTRUCTION

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 12

Attach a detailed plan of the proposed location and dimensions of all nominated (✓) structures.

Please tick (✓) the following where applicable:

Will you be using cranes or hoists ☐ YES ☐ NO

Are there any of the following structures required for this activity or event?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Tower structures   | <input type="checkbox"/> Scaffolding                          | <input type="checkbox"/> Tiered or elevated seating |
| <input type="checkbox"/> Entertainment stage(s)                                       | <input type="checkbox"/> Entertainment movie or video screens | <input type="checkbox"/> Hard surface floor area(s) |
| <input type="checkbox"/> Fencing, screens, barriers                                   | <input type="checkbox"/> Marques and or tents                 | <input type="checkbox"/> Merchandise stalls         |
| <input type="checkbox"/> Food and or drink stalls                                     | <input type="checkbox"/> Mechanically driven rides            | <input type="checkbox"/> Spot and or floodlighting  |
| <input type="checkbox"/> Portable offices/change rooms/catering or dining rooms/ etc. |   | <input type="checkbox"/> Childrens play equipment   |
| <input type="checkbox"/> Other, specify .....   |   |   |

**PART 5****ATTENDEES**

Indicate your estimate of the projected number of people who may attend the event

Identify the principal target group(s), please tick (✓) the appropriate box(es)

- ☐ Family
 ☐ Children
 ☐ Ethnic
 ☐ Special Interest Groups  
☐ Youth
 ☐ Aged
 ☐ Other: Please describe .....

Have you made provision for disabled persons access and toilet facilities

☐ YES ☐ NO
**PART 6****ENTERTAINER(S)**

Please tick (✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 7

If entertainment is provided are the artist well known, please tick (✓) the appropriate box(es).

- ☐ Internationally
 ☐ Nationally
 ☐ State wide
 ☐ Metropolitan wide
 ☐ Locally in the Eastern Suburbs

Please provide a list of names of the performing artist or entertainment groups.

Are animals to be used for entertainment purposes:

☐ YES ☐ NO

Will access to the event be via ticket sales:

☐ YES ☐ NO
**PART 7****ELECTRONICS & TECHNOLOGY**

Please tick (✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 8

Is your event to incorporate the use of any of the following:

Pyrotechnic display ☐ YES ☐ NO Times of operation     to     am/pm

Laser or light display ☐ YES ☐ NO Times of operation     to     am/pm

Other special effects, please describe: .....

Public address system and or electronic amplified microphone system ☐ YES ☐ NO

Electronic amplified music speaker system ☐ YES ☐ NO State Amperage     Voltage

Times of operation of music/entertainment systems     am/pm to     am/pm

On-site electric generator(s) ☐ YES or ☐ NO Number of generator units

Other electronic devices, please describe: .....

**PART 8****SAFETY, SECURITY & CROWD CONTROL**

Please tick (✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 9

Attach a statement detailing your plans for crowd control, the protection of public property & provision for first aid emergency services onto the site.

Is alcohol permitted or will it be available at the proposed event?

☐ YES ☐ NO

Security Staff: Voluntary ☐ YES ☐ NO

Professional ☐ YES ☐ NO

Security staff: Enter the total number employed

First Aid Staff: Enter the total number employed

# NOTICE OF INTENT

## Sports Parks & Reserves Hire

TO AVOID DELAYS to your proposal please read each Part carefully.

FOR ASSISTANCE IN COMPLETING THE FORM PLEASE CONTACT  
COUNCIL'S ENGINEERS CLERK ON 9399.0910

### PART 1

#### APPLICANTS INFORMATION

*Please print clearly all information:*

Contact Person: ..... Title: .....

Organisation Name: ..... Address: .....

..... Postcode:

Telephone: ( ) ..... Mobile: ( ) ..... Facsimile: ( ) .....

24 hour contact telephone number ( ) ..... Name of Contact .....

### PART 2

#### PUBLIC RISK LIABILITY INSURANCE

Do you have Public Risk Liability cover ☐ YES or ☐ NO If "YES" to what sum \$.....

Public risk liability Receipt Number: ..... Telephone number of insurer: ( ) .....

Name of your insurance company: .....

Address: .....

..... Postcode:

### PART 3

#### ACCESS - ENTRANCE FEES

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 4

Will access to the event be via ticket sales? ☐ YES ☐ NO If you answered YES, what is the entrance fee per day for the following groups?

(1) Adults 20 years plus \$   (3) Teenagers 13 - 19 years of age \$

(2) Pensioners \$   (4) Children 6 - 12 years of age \$

Do you provide seasonal tickets? ☐ YES ☐ NO

What is the costs of your seasonal ticket for one adult? \$

Do you offer concessions to children and pensioners? ☐ YES ☐ NO

**PART 4****DESCRIPTION OF PROPOSED ACTIVITY**

Please tick (✓) the appropriate box(es) which best describes your event:

**CLASSIFICATION:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> International Representative | <input type="checkbox"/> Local Representative | <input type="checkbox"/> Primary School       |
| <input type="checkbox"/> National Representative      | <input type="checkbox"/> Club Representative  | <input type="checkbox"/> Corporate            |
| <input type="checkbox"/> State Representative         | <input type="checkbox"/> University           | <input type="checkbox"/> Social Sports        |
| <input type="checkbox"/> Regional Representative      | <input type="checkbox"/> High School          | <input type="checkbox"/> Charity Sports Event |

☐ Other, please specify.....

**ACTIVITY TYPE:**

- |                                      |                                       |                                   |                                   |   |  |                                 |                                  |
|--------------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|---|--|---------------------------------|----------------------------------|
| <input type="checkbox"/> Archery     | <input type="checkbox"/> Athletics    | <input type="checkbox"/> Baseball | <input type="checkbox"/> Cricket  | <input type="checkbox"/> Cycling        | <input type="checkbox"/> Gridiron      | <input type="checkbox"/> Hockey | <input type="checkbox"/> Netball |
| <input type="checkbox"/> Rugby Union | <input type="checkbox"/> Rugby League | <input type="checkbox"/> Soccer   | <input type="checkbox"/> Softball | <input type="checkbox"/> Touch Football | <input type="checkbox"/> Skateboarding |                                 |                                  |

☐ Other, please specify.....

AGE GROUPS	(✓) Y/N	ENTER EITHER NUMBER OF			(✓) GENDER		
	YES/NO	Teams	OR	Participants	Male	Female	Mixed
5-10 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11-15 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16-20 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21-25 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26-30 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31-35 YEARS OF AGE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 YEARS PLUS	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 5****ENVIRONMENTAL ISSUES**

Please tick (✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 6

Will you be supplying:

Additional garbage disposal units? ☐ YES ☐ NO If "Yes" number of units ☐☐☐☐

Separate recycling bins for glass, aluminium, litter, etc ☐ YES ☐ NO

Additional portable toilets? ☐ YES ☐ NO If "Yes" number of units ☐☐☐☐

Will you be using a public address system and or electronic amplified microphone or music system ☐ YES ☐ NO

Is ALCOHOL permitted or will it be available at the proposed event? ☐ YES ☐ NO

**PART 6****USE THIS SECTION ONLY FOR SEASONAL HIRE****PROPOSED SCHEDULE**

First day at the venue (establishment) DAY MONTH YEAR  
  /   /

Last day onsite (vacate): DAY MONTH YEAR  
  /   /

VENUE	DAY- Circle Day(s) Required	TIME(S)	FIXTURE
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	M T W T F S Sn		
	Total Days:	Total Hours:	Total Number of Fixtures:

**PART 7****INSTALLATION & CONSTRUCTION**

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 8

**Attach a detailed plan of the proposed location and dimensions of all nominated (✓) structures.**

Please tick (✓) the following where applicable: Will you be using cranes or hoists? ☐ YES ☐ NO

Are there any of the following structures required for this activity or event?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Tower structures           | <input type="checkbox"/> Scaffolding                | <input type="checkbox"/> Tiered or elevated seating |
| <input type="checkbox"/> Fencing, screens, barriers | <input type="checkbox"/> Marques and or tents       | <input type="checkbox"/> Merchandise stalls         |
| <input type="checkbox"/> Food and or drink stalls   | <input type="checkbox"/> Presentation Stage         | <input type="checkbox"/> Spot and or floodlighting  |
| <input type="checkbox"/> Banners for advertising    | <input type="checkbox"/> Advertising display boards | <input type="checkbox"/> Commercial promotion       |
| <input type="checkbox"/> Other, specify .....       |   |   |

**PART 8****COUNCIL ASSISTANCE**

Please tick(✓) if this SECTION IS NOT APPLICABLE to your event ☐ if not applicable go to Part 9

Please tick (✓) the appropriate box(es) to indicate Council assistance required. These items are an additional cost:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Connection to on-site electricity              | <input type="checkbox"/> Use of on-site water         | <input type="checkbox"/> Additional Ranger Patrols |
| <input type="checkbox"/> Cleaning staff                                 | <input type="checkbox"/> Mechanical sweeping          | <input type="checkbox"/> Beach Inspectors          |
| <input type="checkbox"/> Additional garbage bins and garbage collection | <input type="checkbox"/> Additional toilet cleaning.  | <input type="checkbox"/> Groundsman staff          |
| <input type="checkbox"/> Line marking of playing field(s)               | <input type="checkbox"/> Remove goal post             | <input type="checkbox"/> Install goal post         |
| <input type="checkbox"/> Access to amenities building                   | <input type="checkbox"/> Access into a closed reserve | <input type="checkbox"/> Additional grass cutting  |

**PART 8 CONTINUED**

Will you require the use of floodlights ? If "YES" please complete the following.

TIMES		FIRST DAY	LAST DAY
<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> pm	to <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> pm	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	to <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>
<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> pm	to <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> pm	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	to <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>
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☐ Other types of assistance required, please specify and attach your request to this Notice.

**PART 9**

I have read and understood the application and have included all the required information relevant to my proposed event. I am aware that any of the information that is incorrect, misleading or where there has been an omission that will result in a negative impact on the environment or social setting of the site then the event may be cancelled and all fees and charges could be forfeited.

Signature of Applicant.....Date   /   /

**OFFICE USE****PART 10**

Is the activity permissible under the Zoning YES ☐ or ☐ NO

Are any of the following required by the applicant ?

Section 68 form	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Council Notification	
Development Application	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Beach Inspectors	YES <input type="checkbox"/> or <input type="checkbox"/> NO
Report to Council	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Ordinance Inspectors	YES <input type="checkbox"/> or <input type="checkbox"/> NO
License terms & conditions	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Parks Superintendent	YES <input type="checkbox"/> or <input type="checkbox"/> NO
Additional information required	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Groundsman	YES <input type="checkbox"/> or <input type="checkbox"/> NO

**External Notification:** Applicant and Council to notify the following:

Police	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Ambulance	YES <input type="checkbox"/> or <input type="checkbox"/> NO	Fire Brigade	YES <input type="checkbox"/> or <input type="checkbox"/> NO
State Emergency Services	YES <input type="checkbox"/> or <input type="checkbox"/> NO			Local Residents	YES <input type="checkbox"/> or <input type="checkbox"/> NO



## WET WEATHER ASSESSMENT REPORT

The assessment to close the playing field should be based on the need to protect the playing field from excessive damage, therefore, you are required to complete the following report.

### INSTRUCTIONS

#### *Groundsman's Responsibilities*

Groundsman to notify affected parties if the reserve is to be closed or if the use is to be restricted.

Forward the Assessment Report to the Booking Officer in charge of parks and reserves for notation. Promptly contact the Director responsible for parks and reserves advising of the recommendation to close the Oval.

GROUNDSMAN'S WET WEATHER ASSESSMENT REPORT							
NAME OF PARK OR RESERVE: .....							
<b>AFFECTED EVENT:</b> .....							
<b>Affected Party</b> CONTACT NAME.....TITLE.....							
ORGANISATION NAME:.....ADDRESS:.....							
.....POSTCODE.....CONTACT TELEPHONE NUMBER:.....							
Measure of rainfall within 24 hours before the commencement of match play.							
MEASURE OF RAINFALL IN MILLIMETRES <input type="text"/> <input type="text"/> <input type="text"/>							
ITEMS ASSESSED	VERY LOW		MEDIUM			EXTREME	
Water saturation levels of the soil	1	2	3	4	5	6	7
Extent of ponding on the playing field	1	2	3	4	5	6	7
Soil drainage rate	1	2	3	4	5	6	7
Environmental impact	1	2	3	4	5	6	7
It is recommended that the reserve be:							
<b>OPEN</b> <input type="checkbox"/> with <b>RESTRICTED USE</b> <input type="checkbox"/> then enter permitted number of activities <input type="text"/> <input type="text"/>							
<b>CLOSED</b> <input type="checkbox"/> from <input type="text"/> <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> to <input type="text"/> <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> Total Hours <input type="text"/> <input type="text"/>							
<b>COMMENTS:</b> ..... ..... .....							
Groundsman's Signature:.....Date <input type="text"/> <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/>							

Randwick City Council

Turfgrass Report  
for Coogee Oval

By David Westall  
Turfgrass Consultant

Australian Turfgrass Research Institute Ltd

# **Coogee Oval Turfgrass Study Draft**

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## Introduction

The Australian Turfgrass Research Institute Ltd was commissioned by Randwick City Council to provide a turfgrass Study for Coogee Oval. Based on councils brief, a number of issues have been investigated. Coogee Oval provides a training and competition match play facility for both the Sydney 1st grade Rugby Union and Cricket competitions, South Sydney Junior Rugby League Club, NSW Rugby League Origin and secondary school rugby competitions. The oval is a prominent green space close to beach front which then attracts casual users for ball games, exercise and passive recreation. Because of the number of high profile sporting bodies using the Oval, Council's aim is to provide and maintain a playing surface of high quality and a surface that caters for the two major codes whilst being able to sustain high amount of wear pressure. Council wishes to see Coogee Oval as the "premiere sports oval". To attain these aims there are a number of critical factors that this report will addresses, these include:

- ⇒ Turfgrass species selection
- ⇒ Soil profile performance
- ⇒ Irrigation requirements
- ⇒ Drainage ability
- ⇒ Turf Culture Maintenance
- ⇒ Necessary resources and skilled staff

## Existing Surface Assessment and Investigations

### Botanical Survey

The oval can primarily be divided into two sections (east & west) either side of the cricket table when assessing the existing grass cover.

### Eastern Section

The eastern half is predominantly grassed to a dense sward of kikuyu (*Pennisetum clandestinum*), although some colonised areas of crab grass (*Elusine indica*) were also present. There are some isolated areas where the soil is eroded resulting in large depressions. Within these areas turf cover was sparse and the soil compacted with a high percentage of grass weeds. There were many areas where the grass showed symptoms of water stress which indicates inconsistent moisture retention within the profile primarily due to inadequate irrigation patterns. On both the north and south ends crab grass infestation was high.

### Western Section

The western side was predominantly couch grass (*Cynodon dactylon*) with a high percentage of summer annual grass weeds, primarily crab grass and summer grass (*Digitaria spp*) plants. A majority of the area had been oversown with rye and fescue grass which has resulted in little couch grass undergrowth within these areas. A section adjacent to the cricket table had recently been returfed which has resulted in differing surface levels

Overall the mixtures of grass species and the heavy colonisation of crab grass plants means the playing surface is unsuitable for its purpose. Turf management is therefore difficult as both kikuyu and couch grass demand differing cultural practices, moisture and nutrition. Environmental factors such as temperature influences differing growth rates and ability to recover following play

## **Existing Sub Surface Assessment and Investigations**

A number of soil profiles were taken at depths of up to 300mm. The field inspection showed a consistent depth of soil with no obvious soil layering. The western side of the oval within the dimensions of the rugby field was more compacted compared to the remaining areas of the field which indicates a higher concentration of wear.

### **Physical and Chemical Properties of Existing Soil Type (Lab Analyses - Refer Appendix 5)**

#### **Physical**

##### ***Particle Size Distribution***

Based on a wet dispersion procedure to measure the particle size distribution the results indicate there is no significant variation in the soil profile throughout the oval. The percentage of sand fractions between 0.25 and 1.0mm diameter fall within desirable ranges. The percentage of clay, silt and fine sand fractions are marginally high. During high use times this can lead to the soil becoming dense and compacted with a increase in moisture retention. Highly compacted soils reduce the overall vigour of turfgrass, predisposing the grass to damage and poor root growth. The causes include a soil of an inappropriate particle size distribution, lack of adequate renovation (tyning, drilling and deep slicing) as well as excessive play in wet conditions. To remedy, the soil's porosity must be increased.

##### ***Drainage and Compaction Studies***

Under laboratory compaction to simulate long term field play conditions the values for soil density fall within desirable ranges. The significant results are the low values for Saturated Hydraulic Conductivity which indicate poor water infiltration. This results in a waterlogged condition within the zone of root growth, which leads to a gradual reduction of grass root activity. The detrimental effects of this condition include reduced tolerance to stress, slow recovery from wear and disease with the possibility of manganese toxicity. The remedy is to reduce the moisture retention by altering the irrigation scheduling, increasing the soil's porosity and altering the profile design.

##### ***Soil Profile Wettability***

All three samples taken from representative sections of the field show the existing soil material to have a moderate degree of water repellency. To remedy the application of soil wetting agents will need to be implemented in the maintenance program to avoid dry patch conditions which lead to wilt and loss of grass surface. Timing of these applications are critical.

## Chemical Analyses

### *Basic Properties*

**Soil pH:-** The soil pH is slightly acidic and the addition of agricultural lime will be necessary to allow adequate uptake of nutrients to the turfgrass. Rates between 1000-1500kg/ha are recommended.

**Electrical Conductivity:-** The results indicate the salinity of the existing soil material is low and no remedial action is required at this time.

### *Exchangeable Cations*

**Sodium :-** The value for sodium ( a detrimental cation) is low and no remedial action is required

**Ca:Mg Ratio:-** The levels of calcium in relation to magnesium fall within desirable ranges and no remedial action is required at this time.

**Total CEC:-** The soil material has a low CEC, which indicates that the nutrient holding capacity of the soil for nutrients like potassium, calcium and magnesium is low. Therefore these nutrients should be applied frequently in small quantities.

**Phosphorus:-** The value for phosphorus is high and therefore phosphorus applications should be reduced. The use of nil to low (< 5%) phosphate fertilisers should be used.

**Potassium:-** The levels of potassium fall within acceptable ranges and should be maintained at these levels.

Nutrition testing of the soil should be carried out twice per year to determine fertiliser programs and forecast possible deficiency and/or toxicities.

## **Surface Requirements for High Quality Sporting Fields**

To maintain and produce high quality sporting surfaces there are a number of critical factors. The surface must offer the player a firm smooth but resilient surface. Sward density and height of the grass will vary between the two main codes, eg Cricket requires a relatively short height of cut whilst football require a moderate height of cut. The turfgrass sward must also possess a high aesthetic quality in terms of uniformity and leaf colour. Ideally the selected grass type should possess the following characteristics:

- 1) A uniform and medium-dark green leaf colour all year round.
- 2) Tolerate, where required, relatively low mowing heights of between 15-40mm..
- 3) Possess a medium to medium-fine leaf texture and a relatively high shoot density.
- 4) Possess a moderate rate of shoot growth.
- 5) Possess above ground stolons and/or below ground rhizomes.
- 6) Possess a relatively high tolerance to physical wear.

In addition to this, the requirements of a tolerance to moderately high and to relatively low temperatures, acceptable tolerance to drought stress effects, manageable tolerance to fungal disease infection, pest effects and high tolerance to herbicide phytotoxicity, are considered desirable features of turfgrass to fulfil the objectives of high quality playing fields.

## Drainage

The physical make up of the soil profile must be able to maintain an acceptable rate of water infiltration, and remove excessive moisture from the profile to the outer regions or non-playing areas to avoid water logging and surface ponding. Therefore efficient drainage is essential for the production and maintenance of the playing field to provide player safety and increase field availability. Poor drainage which based on the laboratory analyses and discussions with field staff occur at Coogee Oval, needs to be addressed if Council aims are to be met. Poor drainage can lead to the following problems:

- ⇒ Poor soil aeration
- ⇒ Nitrogen deficiencies
- ⇒ Anaerobic soil conditions
- ⇒ Poor root penetration
- ⇒ Weed infestation
- ⇒ Inadequate leeching of soil salts
- ⇒ Damage to the structure of the soil resulting in bare and subsided areas of turf.

## Irrigation

The present irrigation system is inadequate to provide the turf with a even distribution of water and maintain adequate moisture for grass growth. The present manual block system only allows irrigation to be carried out in the daylight hours and is dependent on staff availability. Infrequent deep watering is more effective than light frequent watering. The installation of a automated system would allow efficient soil moisture for plant growth, efficient applications of fertiliser and pesticides that need thorough irrigation after application and irrigation timings which allow correct irrigation scheduling particularly throughout the summer months.

Player safety is a further issue with the present system. The height of the quick coupler valve and some cover plates are currently incorrectly set resulting in a moderate to high degree of injury risk to all users. These type of valves require maintenance to ensure a safe footing on the surface.

## **Major Works Recommendations for Coogee Oval (outside of total reconstruction)**

As discussed with council, fencing the oval to reduce use is not an option to be considered nor is total reconstruction (which is the best option) due to budget restraints.

To achieve Councils aims for the oval the following major works are required:-

### **1. Turfgrass Selection**

The entire playing surface needs to be grassed to one species type. Based on the projected use and resources we recommend Kikuyu grass sod in MAXI ROLL form be used rather than a couch grass variety. The reasons for this grass selection include:

- ⇒ A longer growing season and leaf colour retention
- ⇒ A high wear ability
- ⇒ High recovery ability
- ⇒ A high safety margin for most turf applied pesticides
- ⇒ Kikuyu under correct management can provide a surface conditions conducive to both Rugby and Cricket.
- ⇒ Tolerance of low to moderate cutting heights.

The source of the kikuyu grass sod should be site inspected to ensure quality. The source of the kikuyu sod chosen should not have originated from a seeded kikuyu.

### **2. Installation of an Automated Irrigation System.**

Mr Bill Walton from Hydro Plan irrigation consultants was commissioned by ATRI to provide a report on the existing system based on our brief, and provide plans and specifications applicable to Coogee Oval. A review of the pumping station on the existing system is also included. See Hydroplan irrigation report and costing for Coogee Oval on the following pages ( refer Appendix 1 for Plans Specifications).



# Hydroplan Irrigation Report

## INTRODUCTION

Hydro-Plan has been commissioned by A.T.R.I. to investigate the existing irrigation resources at Coogee Oval. A design is required for a suitable new automatic system that will meet the requirements of the turf area.

## EXISTING SYSTEM

The 2.5 Ha area is currently serviced by a system of quick coupling valves supplied by both Sydney Water and the pump station drawing from a storm water complex at the north eastern end of the oval.

The quick coupling valve system as shown on Randwick Council's Topo-survey (15-11-96) provides uneven water distribution from the impact sprinklers due to irregular spacing.

The pump station has a TKL 80/50/250 pump direct coupled to a 22kw 2 pole motor. This delivers water to both Coogee Oval and the car park / foreshore landscaped areas. The pump discharge has a complex plumbing arrangement. Suction intake is causing constant delays to day time watering schedules on Coogee Oval due to intake plumbing configuration and debris in footvalve.

## WATER REQUIREMENTS

The current storm water system is also fed from unknown ground water sources and has proved sufficient for turf grass maintenance to date.

Assuming a warm season grass will be adopted for the oval surface a gross application of 30mm per week should be adequate to meet summer evapo-transpiration (ET) demands.

For example, replacement of a 6mm deficit should fit comfortably within the irrigation system's capacity. An evening cycle of the system design shown on Drawing #ATR303-1 for such a demand would be achieved in 3.5 hours and consume 94kL from the supply.

## SYSTEM DESIGN

The system outlined on Drawing ATR303-1 has been chosen on two main criteria:-

⇒ Uniform Distribution

⇒ Player Safety

## **Uniform Distribution**

To achieve a uniform and healthy turf coverage it is essential that the irrigation sprinkler distribution is as close as possible to natural rainfall.

Hydro-Plan has developed its own software for evaluating sprinkler uniformity. At Coogee Oval we have sought optimum performance with a minimum number of sprinklers encroaching on the playing surface.

Excellent Cu and Du readings were achieved using a #24 'Cascade' nozzle in the RainBird "Talon" turf rotor

## **Player Safety**

The turf rotor selection offers only 13 heads on the rugby field. It has a 120mm diameter heavy duty rubber cap that would sit just below ground level. Pop-up turret (55mm dia.) elevates 83mm by means of a powerful retraction spring allowing generous nozzle clearance of turf at higher mowing heights during the football season.

This particular product has no direct equivalent that we are aware of and has recently been accepted by FIFA on European Rugby Fields.

## **Pipe Network**

We have recommended a ring main and laterals using medium density Polyethylene (PE80B) which is rapidly becoming the accepted material in the industry due to its robust construction, minimum maintenance requirement and long life. This product is available from several manufacturers.

## **Valves**

With the depth of cover (600mm) specified by ATRI Resilient Seat Gate Valves for mainline and station solenoid valves configured as shown on Dwg ATR303-2 are recommended. Several brands can meet specifications.

## **Control**

The turf rotors have been grouped in a logical sequence allowing individual treatment of football field or cricket pitch.

A separate supply from Sydney Water is shown for the cricket pitch allowing manual watering without use of pump. The 4 heads covering this area during the football season would be converted to adjustable part circle for wicket preparation.

The automatic controller would be sited in store room at S.W. corner of field. There are a number of suitable brands available to meet the specification.

Soil moisture sensor and control over-ride could be introduced if considered necessary. It is presumed the reference to 'solar and wind assistance' raised in Council brief provided to ATRI relates to pumping.

The required flow for irrigation pumping is beyond the scope of commercially available solar and wind powered pumping options.

There are also solar/light powered irrigation controllers available but offer little if any saving either in capital or operational costs.

## **PUMPING PLANT**

We are advised that the existing TKL pump replaced an earlier model that was originally in a location closer to the oval perimeter.

It is likely that the original pump was selected on the basis of delivering a much larger quantity of water for other parkland areas to the north of the site.

The existing TKL pump has a 22kw motor and delivers 18 l/sec. at maximum efficiency. It is currently delivering approximately 50% of this amount at a much lower efficiency.

The flow required to irrigate Coogee Oval with the new system is 8.5 l/sec. This flow would also meet the maximum station demand of the landscaped areas (10 x Model I25 Hunter sprinklers) at the foreshore and car park.

The current pump station configuration is in need of early review.

During day-time watering of Coogee Oval it was noted that the groundsman was constantly returning to the pump station for priming of pump and /or cleaning of suction strainer.

It is recommended that priority be given to this component as a first stage in any upgrade program to be considered.

Our recommendation for the pump station upgrade has 3 main components:-

- (a) Replace the existing 22 kw TKL pump unit with a more compact 15kw unit.
- (b) Replace the existing 100mm manual screen filter with an 80mm automatic hydraulic model.
- (c) Replace the vertical P.V.C. pipe in storage tank 'C' with a rubber suction hose and a fabricated stainless steel strainer.

These components are outlined on Drawing ATR303-2.

## **COST ESTIMATES**

The following likely installed costs have been estimated for each stage based upon the Bill of Quantities.

Stage I	\$13,500
Stage II	\$38,000

## Oval Drainage

Effective drainage is essential for the production and maintenance of the playing field to provide conditions conducive to healthy grass growth, player safety and increase field availability following rainstorms. ATRI approached Mr Bob Paddison from Turf Drain Australia and following a number of site meetings with ATRI the most applicable design for Coogee Oval was established. The scope of works provided by Turf Drain Australia (see Appendix 3) includes returfing of the oval and resurfacing of the wicket table. This is to ensure correct levels and contouring can be achieved. Two options are based on slit drain spacings of 2 meters or 1.5 meters. It is ATRI's recommendation that a spacing of 2m would be adequate for the oval. The installation of extra drainage around the wicket perimeter is also recommended.

Both the irrigation works and drainage works need to be coordinated at one time to minimise trenching and spoil. This is critical to avoid sealing of the slit drainage trenches with foreign material due to other works.

### Cost Analyses for Major Works

#### Irrigation

Stage No 1	Pump Station Upgrade	\$13,500
Stage No 2	Automatic irrigation System	\$38,000

Drainage & Resurfacing	<u>\$171,000</u>
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<b>TOTAL</b>	<b>\$222,500</b>
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### Carrying Capacities and User Strategies

The existing user schedule given to me by council for 1996/1997 is excessive based on the existing agronomic and physical condition of the oval. Predicting carrying capacities in relation to quantifying user numbers is difficult as many variables are involved such as:

- ⇒ Time of year
- ⇒ Environmental conditions
- ⇒ Type of activity
- ⇒ User patterns
- ⇒ Field construction

However the better constructed fields are able to provide higher usage and still maintain an acceptable sward of grass, provided strict maintenance and management programs are employed.

If the field was resurfaced, implementing the major works program the existing user schedule would be acceptable. However each time one component of the works is deleted this then reduces the ability of the playing surface to sustain high user loads.

## Strategies for Wear Tolerance

There are two ways of reducing concentrated wear on the oval. These being, reduce the amount of play and/or change the user pattern on the field outside of match days. As a guide we suggest the following guidelines for the two major codes.

### Rugby Union and League Season

Allow a two day activity free break on the main rugby field following weekend matches. This is to allow ground staff to carry out necessary repair such as localised topdressing and seeding and allow some recovery time for the turf grass.

A policy should be implemented on training days to utilise the entire oval so as to avoid concentrated wear in section. For example:-

<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>
match day	no play oval closed	no play rugby field closed goal kicking and sideline kicking practice only on field	eastern section open Assigned rugby field sections open	southern section open goal kicking and sideline kicking practice only on field	northern section open goal kicking and sideline kicking practice only on field	match day

Scrum machines are best used outside sideline areas and a location schedule should be given for each training schedule. Locations should be determined by grounds staff. Allow one mid week game on the main field for school boy rugby

Avoid training events in excessive wet weather

### Cricket

The nature of this sport means there is far less wear in the out field regions. The wear pattern produced by bowlers run up to the wicket can not be avoided. However we recommend the following:

- ⇒ Do not allow training on the wicket square only match play
- ⇒ Avoid playing on the wicket square and the infield in wet weather
- ⇒ Determine sections of the oval where practice nets can be erected for the season

## **Annual Turf Management Plan**

The principal aspects within the maintenance program are:-

- ⇒ Mowing
- ⇒ Renovation
- ⇒ Fertilising
- ⇒ Irrigation
- ⇒ Pest Control

### **Mowing**

The height of cut and frequency of mowing is usually dictated by how rapid the growth rate is, type of surface desired, time of year and turfgrass species.

As a guide a mowing height of approximately 15 to 20mm should be used in the in the warmer months, and not removing any more than 40% of leaf at any one time.

Sharp cylinder type mowing units will give a better quality cut as opposed to rotary type mowers.

Alternate mowing direction to avoid surface graining and to improve sward density.

### **Renovation**

The principal objectives for renovation are:-

- a) Relieve soil compaction.
- b) Addition of soil amending products such as lime and organic matter.
- c) Maintenance levels.
- d) Improve nutrition.
- e) Reduce thatch build up.

Renovation is best carried out annually and we suggest mid to late spring.

Soil cultivation needed by way of hollow tyning or deep slicing to relieve soil compaction. The result of compacted soils on turfgrass can result in reduced overall vigour of the grass (thin open areas of grass cover), reduced root depth and reduced rate of water infiltration into the soil. Also, increased weed infestation. Decompaction procedures are suggested to be carried out following the rugby season

A sufficient interval is needed between summer and winter sporting codes to allow adequate preparation and renovation time.

## Fertilisation

The nutrient requirements for ovals vary with soil type, amount of play and irrigation applied, the objective being to maintain consistent growth and nutrition during Spring and Summer.

Refer fertiliser program table

### Fertiliser Program (not wicket table)

Season	Product	Rate (kg/ha)	Comments
Spring	Gypsum (annually)	1000	Prior to soil cultivation
	Dynamic Lifter	1500	2 weeks after cultivation. Follow with irrigation
	Sulphate of Potash	200	4 weeks after Dynamic Lifter. Follow with irrigation
	Nitram	160	2 weeks after Sulphate of Potash. Water in immediately after application
Summer	Abroska K-tram (Paton's Brand)	150	Follow with irrigation
	Abroska No.20	200	6 weeks after Abroska K-tram. Follow with irrigation.
Autumn	Sulphate of Potash	250	Follow with irrigation.
	Abroska No.20 (Patons brand)	150	Follow with irrigation.

Best method of application is by a tractor mounted spreader. Irrigation should be applied following application.

To enhance leaf colour a foliar application of iron sulphate at 2kg/ha and ammonium sulphate at 3kg/ha can be applied in a soluble form.

### Cricket Wicket Table

Ideally, the wicket table should be able to be watered independently from the playing field. The soil type will differ dramatically from that of the ovals, as will the requirement for water dictated by wicket preparation.

## Fertiliser Programme

With the wicket area the emphasis of a fertiliser programme is to use low salt index fertilisers, fertilisers without gypsum and non-organic fertilisers. High salt index fertilisers can lead to salinity problems while gypsum and organic fertilisers promote the formation of soil aggregates and thus the break up of the wicket. The fertiliser programme is designed for areas where adequate irrigation can be maintained over summer. If adequate irrigation cannot be provided the recommended fertiliser rates need to be reduced to match water supply and plant growth.

SEASON	PRODUCT	FREQUENCY	RATE PER/100M <sup>2</sup>	COMMENTS
Spring/summer	Greenbound	3 weekly intervals	0.6kg/100m <sup>2</sup>	Follow with irrigation
Summer	Kaynitro	3 weekly intervals	0.5kg/100m <sup>2</sup>	Follow with irrigation
Autumn	Potassium Sulphate	4 weekly intervals prior to dormancy	0.5kg/100m <sup>2</sup>	Follow with irrigation

## Topdressing

We recommend annual topdressing be carried out applying between 5mm and no more than 15mm at one time using a tested non-saline soil/sand mix.

Light topdressing of low areas and high traffic areas should be carried out as necessary.

Quality, tested soils should only be used and we recommend all topdressing materials fit within the performance parameters set out in the table below.

Particle Name	Size (mm)	Allowed Range
Gravel	>2.0	0.0-0.0
Very Coarse Sand	1.0-2.0	0.0-10.0
Coarse Sand	0.5-0.1	10.0-20.0
Medium Sand	0.25-0.5	40.0-65.0
Fine Sand	0.1-0.25	<25.0
Very Fine Sand	0.05-0.1	5.0-10.00
Clay and Silt	<0.05	5.0-10.0
Infiltration Rate:	n/a	10-25mm/hr

Approximate delivered costs for this type of material will vary between \$27.00 to \$35.00 per tonne



## Irrigation

Effective irrigation ensures adequate moisture for turfgrass growth. Infrequent deep watering is more effective than light frequent watering which can lead to a shallow root system and wilt in periods of hot weather.

Irrigation is best timed to avoid having a high soil moisture content when intense traffic is anticipated (eg prior to play and training), this will minimise soil compaction.

In the hotter months irrigation is best applied in the early morning rather than using night irrigation.

## Pest Control

### Weeds

The most effective means of weed control is maintaining a dense turf cover. For broad leaf weed control there are a number of broad spectrum herbicides available. Avoid herbicide applications that contain Dicamba as the active constituent. Herbicides are best applied using a tractor mounted boom spray unit to obtain effective control.

Season	Application(s) Suggested At label rates and recommendations	Purpose
Spring	Dacthal/Methar-Pre-Emergence, or Dimension  Apply Primo PGR late Spring	Preventive Summer Annual Grassweed Application  Reduce clipping yield, Increase sward density
Summer	Weed wand with Roundup as necessary, Hand Weed as necessary.  Apply primo mid summer	Curative Summer Annual Grassweed Application  Reduce clipping yield Increase sward density
Autumn	Sportsground	Curative Broadleaf Weed Application
Winter	Methar Tri-Kombi.	Curative Broadleaf Weed Application

## Plant Growth Regulator Use

Plant growth regulators are synthetic chemical hormones which can stimulate or inhibit the growth of a plant during various stages of the plant's life cycle. The use of plant growth regulators for use on turfgrass is relatively recent. The interest in plant growth regulators for turfgrass applications lies in the requirement for wanting to minimise the leaf production in certain turfgrass situations. This would allow for savings in labour and machinery and the possible reduction in water use by turfgrass. PGRs also enhance leaf colour increase sward density and produce a finer leaf. At this time Primo is registered for use in turf and is the recommended product.

## Soil Wetting Agents

We recommend two applications per year. The first application in early October, the second in late January. Irrigate following each application.

## Winter Oversowing

To enhance the survival of the kikuyu grass and the aesthetics of the grass sward during winter, the rugby field can be oversown with a turf type perennial rye grass during the preceding Autumn. Autumn oversowing can be achieved using a conventional, rotary operating fertiliser spreader mounted on a suitable tractor. Or more cost effectively contracted out. A seeding rate of 350 to 400kg/ha is suggested. A high phosphorus fertiliser, based upon Di-Ammonium-Phosphate should be applied at this time. The temporary grass species can be selectively removed by herbicide application(s) and foregoing irrigation during the following Spring. Such a strategy can be implemented annually

Oval oversowing can be carried out via contract at costs of approximately \$1700 /ha, this includes two directional sowing which is necessary to provide a even sward cover.

## Pests

There are a number of pests which effect kikuyu grass, however in an oval situation pesticide control is unlikely to be needed unless high populations are present and severe damage is resulting on the turf.

The main pests associated with kikuyu are:

- ⇒ Scarab Beetle-Various Species
- ⇒ Grass Webbing Mites-(*Oligonychus* spp)
- ⇒ Mole Crickets-(*Gryllotalpa* spp)
- ⇒ Army Worm-(*Spodoptera maurita*)
- ⇒ Bill Bug-(*Speriophorus brannipennis*)

Only curative applications need to be applied and only if populations are causing turf loss to a significant degree. Staff need to be trained in identifying pest activity and symptoms so that cultural preventive action can be taken.

## Maintenance Equipment

Based the inventory of turf equipment supplied to us the following comments apply;

The significant equipment that is absent required for quality maintenance is in the area soil aeration and broad acre scarification and vacuum sweeping machine.

A large fairway type tractor mounted scarifying machine is essential in maintaining a smooth surface and minimising thatch accumulation.

Aeration machine either by way of hollow tining deep slicing is essential for relief of soil compaction.

Alternatively these type of operations may be more cost effective carried out by contract. As a guide costs for this type of work are:-

Dethatching and Sweeping     \$590 per/ha

Aeration                             \$120 /ha

The walk behind cylinder mower and turf tech scarifier are essential equipment for the cricket wicket preparation. As we understand these two machines service all the wickets under Council supervision. It is recommended that an additional two walk behind scarifiers and walk behind cylinder mowers are purchased to accommodate efficient wicket preparation in time for the commencement of the season.

The remaining plant machinery is adequate at this time however a depreciation and replacement program should be implemented

Servicing of mower blades and cutting cylinders should be conducted every quarter. Backlapping of cylinder mowers should be carried out every 4 weeks. Training of operators in basic cylinder adjustment and maintenance is essential.

### **Technical Information & Staff Training Relevant to the Management of Sports Turf Areas**

ATRI has for over 20 years provided quality and factual technical information to the sports turf industry.

Technical information relevant to the management of sportsturf areas is available on a fee-for-service basis to all areas of the turf industry.

However, annual subscription to the Australian Turfgrass Research Institute's "Club ATRI" will provide Randwick City Council with access to free telephone advice when desired and 5 hours free Infoturf Information Service. Infoturf provides information and published material to our Club ATRI members. You simply ring or fax your needs and we research the material for you.

Membership of Club ATRI also entitles you to discount on other ATRI services, such as laboratory testing, purchase of publications, one free ATRI workshop registration per year and member rates for seminar and workshop registrations (approximately 15% discount).

Cost of membership for Club ATRI is as follows:

Joining fee (includes first year's subscription)     \$510

Annual renewal     \$390

(See enclosed complete training program)

Additionally a yearly soil testing and advisory package can be provided which includes:

- ⇒ Three site visits per year for surface assessment and maintenance recommendations
- ⇒ Four soil physical analyses to ensure quality control of topdressing material
- ⇒ Three Complete nutrient analyses
- ⇒ Report following each visit

Advisory and Soil Testing Package costs are \$1538.00.

Subscription to turf journals listed below is recommended

Turf Craft Australia	Australian Publication
Grounds Maintenance	United States Publication
New Zealand Turf Management Journal	New Zealand Publication

## ENVIRONMENTAL ISSUES

### Water Quality

The existing water source for irrigation of the turf is from urban stormwater catchment. The quality of this water will experience seasonal fluctuations. Monitoring of this water for both irrigation quality and health and safety reasons is necessary. This should be monitored with samples taken at quarterly intervals. The water quality monitoring program is to ensure the irrigation water is satisfactory for turf growth which may also reduce fertiliser applications depending on nutrient loads. To ensure the water presents no health and safety risks via spray drift to the surrounding areas and to oval users. Therefore both chemical and biological testing is required.

### Pesticide Applications

It is expected that herbicide applications for weed control would primarily be the main pesticide applied. Insecticide and fungicide application would seldom be applied.

A clear policy needs to be defined on withholding periods following a pesticide application. The length of time the oval is closed during and post treatment will be determined by the chemical group. The chemical manufacturers should be contacted in reference to withholding periods. Material safety data sheets should also be accessible to the operator whilst in the field so quick action can be taken in the event of an emergency.

## **Summary**

**Overall to achieve the objectives set out by Council for Coogee Oval the key areas that require addressing in order of priority are;**

- ⇒ Installation of an efficient irrigation system**
- ⇒ Maintain one grass variety on the entire field**
- ⇒ Sub surface drainage**
- ⇒ A clear strategy for user groups**
- ⇒ Diligent maintenance regimes and increased allocation in maintenance hours.**

**The demands on the field are high and to maintain maximum usage whilst maintaining an adequate playing surface is not a easy task. Areas of grass will always wear out under high wear patterns. Better constructed and maintained playing fields have greater ability to recover particularly during periods of high rain fall and adverse environmental conditions.**

**David Westall  
Turfgrass Consultant**



8 Freemans Lane  
Glenorie NSW 2157

Tel (02) 652 2208  
Mobile (018) 26 1089  
Fax (02) 652 2209

Appendix 2

12th February, 1997

Attention: Mr David Westall  
Australian Turf Grass Research Institute  
PO Box 190  
CONCORD WEST NSW 2138

**RE: COOGE OVAL**

Dear David,

We have pleasure in submitting this proposal and tender to renovate Cooge Oval. All the materials we use are produced in Australia and comply with the relevant Australian Standards.

To re-construct the field would require the following:-

(a) Two applications of "Round Up" Herbicide at fortnightly intervals. Remove and dispose of vegetation as directed. Rotary hoeing to a depth of at least 150mm. Treat soil as directed by ATRI.

(b) Laser grading to a uniform contour using the existing soil.

(c) Install a system of slit drainage in field as follows:-

1. A main stormwater pipe line be layed on the northern and southern sides of the field draining into the existing easement pipe at the eastern end.
2. 70mm wide slit trenches be excavated across the field laser graded to drain into the storm water mains on each side. A 50mm agricultural pipe is then installed on a PVC membrane at the base of the trench and connected to the stormwater pipe. The trench is then backfilled with washed river gravel and coarse drainage sand. All the materials used are carefully selected and tested for the best possible outcome. The removal of the excavated soil from the site is not included in this quotation. Rock excavation would be extra if encountered.

OPTIONS

- (1) To install the slit drains at 2 metres apart.
- (2) To install the slit drains at 1.5 metres apart.

(d) Re Laser-grade the field to ensure even compaction and grade. Fertilise as directed by ATRI.

(e) Lay washed "maxi rolls" of "Ki-Kuyu" Turf grass to the entire field.

To re-level and re-grass the existing cricket wicket would require the following:-

- \* Removal of the existing grass and rotary hoe to a depth of 75mm.
- \* Laser graded to suit new contours.
- \* Install extra drainage around the wicket perimeter.
- \* Re-compact with a vibrating roller.
- \* Adding fine crushed wicket soil laser graded to an accurate finish and fertilise as directed by ATRI.
- \* Lay washed "maxi rolls" of "Green Lees Park" couch grass on the wicket.

Total cost for reconstruction including the cricket wicket with the drainage at 2 metres apart **OPTION ONE** = \$171,000.00.

Total cost with the drainage at 1.5 metres apart **OPTION TWO** = \$180,000.00.

Tip fees not included in costs.

Thank you for the opportunity to tender on this project if you need any further information please contact me.

Yours faithfully,



BOB PADDISON



8 Freemans Lane  
Glenorie NSW 2157

Tel (02) 652 2208  
Mobile (018) 26 1089  
Fax (02) 652 2209

26 FEB 1997

We have been operating our company for more than 20 years. In the last 7 years we have concentrated and specialised in Sports Turf Drainage, particularly sand/slitting and sportsfield constructions.

We have successfully completed projects for many councils football clubs, golf clubs schools and race tracks.

As well as drainage works we have been involved in football field and bowling green construction. New developments and re-building existing ones.

Our company is recognised by Sydney Water Authority as a preferred contractor.

The following are a list of people for whom we have completed work similar to your project.

Peter De <sup>✓</sup> lin	North Sydney Council	041923906 or 99368177
Stephen Head	Warringah Council	99820761
R <sup>^</sup> oy Bennett	Pittwater Council	99797507
Warwick Brown	Kuring-gai Council	94980824
Garry Hoy	Knox Grammar School	94870414
Wayne Jefferies	The Kings School	0 14990169
Lindsay Davies	Rose Hill Race Course	99304070
Dale Jeffs	Gosford Race Course	0 43250461
Brett Scott	Wyong Race Course	0 43521083
Brett Connells	Belconnen Leagues Club	0 62541044
John Wilson	Brookvale Oval	99052471

I have included the phone numbers should you require references.



Company details are as follows:-

ACN No - 003 234 231

Contractors Authority No - A3661

Drainage Lic No - L2372

Workers Compensation MMI, Policy No - MW25016531

Public Liability Insurance Zurich Policy No - 232212730LA

Once again we thank you for this opportunity and are happy to supply any further details should you so require.

Yours faithfully,

A handwritten signature in cursive script, appearing to read 'Bob Paddison', followed by a small dot.

BOB PADDISON

*ATRI presents the NATIONAL*

---

# **Turf Training Program**

## ***Courses designed for:***

- Greenkeepers
- Superintendents
- Turf Managers
- Club Committee Members
- Club Management
- Fertiliser/Chemical Suppliers
- Soil/Sand Suppliers
- Landscapers and Developers
- Local Government Councils
- Students
- Grounds Maintenance Persons
- Lawning Mowing Contractors

## ***Events planned for***

- Brisbane
- Canberra
- Melbourne
- Newcastle
- Perth
- Sydney

**Australian Turfgrass Research Institute Ltd**

**Phone (02) 9736 1233**  
(International 61 2 9736 1233)  
**Fax (02) 9743 6348**  
(International 61 2 9743 6348)



ACN 000 132  
68 Victoria Ave  
(PO Box 190)  
Concord West, NSW 2138  
Australia

# Workshops

## PLEASE NOTE:

All dates for events scheduled to be held at Ryde TAFE are awaiting confirmation as at time of printing and will be confirmed as final programs are available.

Soil  
Chemistry

Diseases

Weed  
I.D. & control

Computers

Nutrition

## INTRODUCTION TO COMPUTERS WORKSHOP

January 28, 1997  
Early 1997

Sydney, Ryde TAFE  
Canberra, Venue to be decided

8.30 am - 12.30 pm. This workshop is pitched at those with no prior computer knowledge or experience. It covers computer basics - hardware and software, using computers in turfgrass management and will outline the steps required to specify and purchase a complete personal computer system. Plenty of time for questions. Max. number 15.

## COMPUTERS II WORKSHOPS

January 29, 1997  
Early 1997

Sydney, Ryde TAFE  
Canberra, Venue to be decided

8.30 am - 12.30 pm. An advanced course to provide participants with an in-depth look at integrated management software and how it can be used as a practical and efficient tool in turfgrass management. A half day event with plenty of time for questions. Max. number 15.

## NUTRITION FOR TURF

October 2, 1996  
July 2, 1997

Canberra, Weston TAFE  
Sydney, Ryde TAFE

8.30 - 12.30. A demonstration workshop linking soil fertility with turfgrass growth. The basis of soil chemistry, soil analysis, fertilisers and turf nutrition will be discussed. Many demonstrations. Max. number 50.

## TURF DISEASE WORKSHOPS

January 28, 1997

Sydney, Ryde TAFE

8.30 - 12.30. A practical workshop looking at life cycles, identification and control of diseases which affect turf. Hands-on microscope work to see behind the scenes. Max. number 30.

## TURFGRASS IDENTIFICATION WORKSHOP - Class II

October 1, 1996

Sydney, Ryde TAFE

8.30 - 12.30. A hands-on grass identification session using microscopes and keys. All the common, and not-so common sports turfgrass species will be examined for recognition, diagnostic features and use. Max. number 30.

## Course Descriptions

- Schools:** Special courses covering the basics. Normally 3 hours in duration these are extremely practical sessions where emphasis is placed on the principles of the subject. The presenter will issue a booklet or subject notes to each registrant. Lunch is not provided.
- Workshops:** Hands-on, in-depth training sessions on one defined topic, questions and interaction encouraged. Duration of 4 hours with one or two instructors with suitable expertise; budget priced. Each participant receives a copy of the course notes and morning tea. Lunch is not provided.
- Seminars:** Refresher courses for turfgrass managers and directors of clubs. Broad based agenda with topics on new products, new technology and management practices. Duration of 6-8 hours, managed by a chairman, moderately priced, including morning tea, lunch and bound proceedings. Trade displays and demonstrations included.
- Conferences:** Day long events presenting a number of scientific papers on new products, systems and technology. All papers technically presented with visual aids in a fully equipped auditorium. Static technical displays encouraged. Morning tea and lunch included. Bound conference proceedings to each participant.

# Seminars and Conferences

## Newcastle Regional Seminar

October 30, 1996

Marathon Stadium, Newcastle

Topics include organic pesticides, parasitic nematodes, mole crickets and a paper on Environmental Legislation. Includes lunch. Runs 9.30 am - 2.30 pm

## "Down to Earth" Seminar

December 3, 1996

Sydney, Ryde TAFE

December 5, 1996

Canberra, Weston TAFE

Hands-on workshop. Demonstrations assisted by discussion. Physical and nutritional interactions of sportsturf growing media covered. Runs 8 am - 3 pm.



## Environmental Issues for Turf

1-day Conference in 4 capital cities

March 11, 1997

Sydney

Epping RSL Club

March 13, 1997

Brisbane

Venue to be decided

March 18, 1997

Melbourne

Venue to be decided

March 20, 1997

Perth

WACA, Perth

These conferences will identify the issues relevant to each Australian State's environmental turf management.

### Who should attend?

Anyone who bears the responsibility for maintaining the environment in and around turf.

## "Don't get COURT" Workshop

Legal Liabilities for Club Directors

April 16, 1997

Epping RSL Club, Sydney

This workshop is a must for club management and those responsible for the environmental issues affecting their sporting facilities. Max. number 50.

## Custom Training

*Let us come to you!*

Most of our workshops are "portable" or we can present training to your requirements at your workplace.

Phone Lee Martin (02) 9736 1233 for more details and a quotation.



4th ATRI

## Turf Research Conference

1-day Conference in 2 capital cities

May 6, 1997

Sydney

Epping RSL Club

May 13, 1997

Melbourne

Venue to be decided

The goal of this conference is to fill a void in the current conference/seminar calendar by providing a venue for presentation of Australian turf research and new product developments.

By running the conference in two capital cities we hope to be able to offer the most recent research and development results to a wider audience.

## Pesticide Safety & The Environment Seminar

July 1, 1997

Sydney, Ryde TAFE

A two way seminar for turf managers and club committeemen detailing legal obligations of pesticide use, storage, handling and much more. Environmental issues related to pesticide use are defined and discussed. Max. number 50. Runs 8 am - 3 pm

## Lawn Maintenance Schools

Especially designed for the lawn contractor, grounds person and the keen home gardener.

### 1996

Weeds of Turf

October 2

Ryde TAFE

### 1997

Diseases & Insects

January 29

Ryde TAFE

Nutrition for Turf

July 1

Ryde TAFE

Weeds of Turf

September 30

Ryde TAFE

## How to Register

**Parking:** Available at all locations. A map or details will be provided with confirmation of your registration.

**Equipment:** We ask that all registrants bring with them a notepad and pencil.

**Cancellations:** Should you cancel within 5 working days of an event, documentation will be provided but no refund applies. Cancellations received prior to 5 working days of any program are subject to a processing fee of 10%. Registration fees may be transferred to another ATRI event, however a 10% processing fee will apply. ATRI reserves the right to cancel any event due to inadequate industry support.

**COMPLETE AND RETURN TO:**

**☎ (02) 9736 1233**



**ATRI, PO Box 190,**

**Concord West, NSW, 2138**

**Fax (02) 9743 6348**

☐ **PLEASE send more information regarding** .....  
(complete address details below and fax or mail to above)

<b>Registration Details</b>	<b>Standard</b>	<b>Member/ Affiliate</b>	<b>Apprentice/ Student</b>	<b>Speaker's - Notes only +\$4 P &amp; H</b>	<b>No.</b>	<b>Total \$</b>
<b>1996 Program</b>	✓ box	✓ box	✓ box	✓ box		
"Down to Earth Seminar", Canberra	\$190	\$160	\$145	\$35		
"Down to Earth Seminar", Sydney	\$190	\$160	\$145	\$35		
Newcastle Regional Seminar	\$125	\$110	\$95	n/a		
Nutrition for Turf, Canberra	\$150	\$125	\$110	\$33.50		
Turfgrass Identification Workshop	\$170	\$145	\$130	\$31.50		
<b>1997 Program</b>						
4th Turf Research Conference, Melbourne	\$200	\$190	\$160	\$65		
4th Turf Research Conference, Sydney	\$200	\$190	\$160	\$65		
"Don't get COURT" Workshop, Sydney	\$190	\$175	\$155	n/a		
Environmental Issues for Turf, Brisbane	\$200	\$190	\$160	\$65		
Environmental Issues for Turf, Melbourne	\$200	\$190	\$160	\$65		
Environmental Issues for Turf, Perth	\$200	\$190	\$160	\$65		
Environmental Issues for Turf, Sydney	\$200	\$190	\$160	\$65		
Computers, Introduction to, Canberra	\$210	\$190	\$165	\$35		
Computers, Introduction to, Sydney	\$210	\$190	\$165	\$35		
Computers II Workshop, Canberra	\$210	\$190	\$165	\$35		
Computers II Workshop, Sydney	\$210	\$190	\$165	\$35		
Lawn Maintenance School - 1 only	\$65	\$65	\$65	n/a		
Lawn Maintenance School - All 3	\$195	\$195	\$195	n/a		
Nutrition for Turf, Sydney	\$155	\$135	\$115	\$33.50		
Pesticide Safety & the Envir. Seminar, Syd.	\$195	\$165	\$145	\$35		
Turf Disease Workshop, Sydney	\$170	\$145	\$130	\$35		

**Prices subject to change without notice.**

**Group bookings by negotiation.**

**Total:**

**Grand Total:**

1. Name:.....	2. Name.....
Position:.....	Position.....
3. Name:.....	4. Name.....
Position:.....	Position.....

**Club/Company/College:** .....

Address: .....

State.....Postcode.....

Phone: (bus) ..... (home) ..... Fax: .....

### Payment Details

☐ Please find enclosed our cheque for \$ ..... ☐ Please invoice Club/Company/College ☐ Please charge credit card:

(please ✓ box) Bankcard ☐ Mastercard ☐ Visa ☐

Name on card ..... Expiry date ..... Signature .....

# Laboratory Report

Client: Randwick Council

Report Number: 338F.DOC

Date Received: 4/4/97

## Result Summary -- Soil Chemistry

Analysis	Unit	Oval		Recommended Ranges (for Turf)
<b>BASIC PROPERTIES</b>				
pH (1:5, 0.01M CaCl <sub>2</sub> )	n/a	5.2		5.5-7.0
Electrical Conductivity (EC)	dSm <sup>-1</sup>	0.072		<0.300
Organic Matter	%	N/T		2.0-5.0
<b>EXCHANGEABLE CATIONS**</b>				
Sodium (Na)	% CEC	1.57		<5
Potassium (K)	% CEC	11.26		5-15
Calcium (Ca)	% CEC	62.04		60-75
Magnesium (Mg)	% CEC	25.13		10-20
Effective CEC	meq.	3.82		n/a
<b>EXTRACTABLE NUTRIENTS</b>				
Phosphorus (Olsen)	mg P/kg	67		21-50
Potassium	mg K/kg	168		n/a
<b>CALCULATIONS</b>				
Ca/Mg ratio	n/a	2.47		2.00-5.00
Exchangeable Sodium Percentage	%	1.57		<5.00

\*\* cmol(+)/kg. (Soils not subject to ethanol leaching for soluble cations. Extracted in 0.15M NH<sub>4</sub>Cl.)  
 N/T Not Tested

Authorised by: Cathy Losurdo  
 Cathy Losurdo, Laboratory Technician

Date: 9/4/97

# Australian Turfgrass Research Institute Ltd

A.C.N. 000 132 070

## Laboratory Report

Client: Randwick Council

Report Number: 58F.DOC

Date Received: 23/1/97

### Result Summary -- Soil Physics

Analysis	Unit	Eastern Side	Northern Side	Western Side	Sand Layer
<b>BASIC PROPERTIES</b>					
pH (1:5, 0.01M CaCl <sub>2</sub> )	n/a	4.5	5.3	5.4	N/T
Electrical Conductivity	dSm <sup>-1</sup>	0.142	0.176	0.088	N/T
Soil Water Repellancy	M	1.6	2.0	2.0	0.0
<b>PARTICLE SIZE DISTRIBUTION<sup>1</sup></b>					
Gravel	>2mm	0.22	1.24	1.16	N/T
Very Coarse Sand	1-2mm	1.11	1.27	1.63	N/T
Coarse Sand	0.5-1.0mm	7.89	9.53	12.60	N/T
Medium Sand	0.25-0.50mm	48.36	46.97	46.95	N/T
Fine Sand	0.15-0.25mm	17.65	19.76	18.36	N/T
Very Fine Sand	0.05-0.15mm	9.21	9.52	8.80	N/T
Clay and Silt	<0.05mm	15.56	11.71	10.50	N/T
<b>DRAINAGE &amp; COMPACTION STUDIES<sup>2</sup></b>					
Soil Density	g/cm <sup>3</sup>	1.47	1.52	1.48	N/T
Moisture Retention	%	25.55	22.81	17.50	N/T
Non Capillary Porosity	%	7.22	8.21	17.66	N/T
Capillary Porosity	%	37.50	34.62	26.12	N/T
Total Porosity	%	44.72	42.83	43.78	N/T
Saturated Hydraulic Conductivity <sup>3</sup>	cm/hr	5.92	5.16	7.27	N/T

1 U.S Dept. of Agriculture Gradings. Based on a Clay Dispersion; Results expressed as % retained.

2 Compaction (x15), 40 cm tension

3 Conducted at 23°C, Electrical Conductivity of water of 0.142 dS/m

N/T Not Tested

Authorised by: Maria Guerrero  
Maria Guerrero, Laboratory Manager

Date: 7/2/97

## UMPIRES' GROUND ASSESSMENT 1996/97

Table 1 - First Grade Grounds (by average)

Rank	Mean	Ground	Club	Days	Total
1	8.77	Hurstville	St George	29	254.5
2	8.48	Bensons Lane 1	Hawkesbury	27	229.0
3	8.40	Bankstown	Bankstown-Canterbury	26	218.5
4	7.74	Old Kings	Parramatta	27	209.0
5	7.70	Drummoyne	Balmain	25	192.5
6	7.59	Raby 1	Campbelltown	27	205.0
7	7.56	Howell	Penrith	29	219.5
8	7.48	Rosedale	Fairfield-Liverpool	28	209.5
9	7.35	Caringbah	Sutherland	28	206.0
10	7.20	North Sydney 1	North Sydney	17	122.5
11	7.02	Waitara	Northern District	24	168.5
12	6.92	Sydney University 1	Sydney University	25	173.0
13	6.56	Allan Border	Mosman	26	170.5
14	6.50	Petersham	Petersham-Marrickville	27	175.5
15	6.25	Pratten	Western Suburbs	27	169.0
16	6.19	Waverley	Eastern Suburbs	26	161.0
17	6.18	North Sydney 2	North Sydney	11	68.0
18	5.85	Killara	Gordon	24	140.5
19	5.72	Coogee Oval	Randwick	22	126.0
20	5.33	Village Green	University of NSW	28	149.5
21	3.97	Manly Oval	Manly-Warringah	20	79.5



**Grant Alexander & Associates Pty. Limited**

**CONSULTING ENGINEERS & GEOLOGIST**

26 Shell Road, Woollooware, NSW 2230

Telephone: (02) 527-4081 Facsimile (02) 527-4190

Postal Address: PO Box 2358, , NSW 2229

Our Ref: 4430/02

15th January, 1997

The Town Clerk  
Randwick Municipal Council  
Francis Street,  
RANDWICK NSW 2031

Attention: Mr. P. Stone

Dear Sirs,

RE: SENIOR CITIZENS HALL, BROOK STREET, COOGEE

1. We first inspected the above property in July 1990 and reported on the extensive cracking of the masonry walls arising from settlement beneath the brick footings.
2. A further inspection was held with Mr Peter Stone in October, 1996. This recent inspection determined that settlements have continued, crack widths have increased and the structure is continuing to deteriorate.
3. We have discussed the possibility of underpinning with MacDonald Contracting Pty. Ltd., a specialist underpinning firm with experience in this type of structure. On the assumption that the subgrade comprises alluvial sands, the costs of underpinning the walls and floor would be in the order of \$30,000 to \$40,000. The work would involve demolition of the internal floor and any external paving around the perimeter, installation of cement grout injected piles at approximately 1.5m centres and then provision of continuous support beneath the brick footings. In addition, before the work proceeds, it will be necessary to carry out a site inspection to determine the subsurface profile, groundwater conditions and the depth of a suitable bearing stratum. Costs of the investigation would be in the range of \$1,000 to \$2,000.
4. Once the underpinning work is complete, the building would need to be re-furbished. This would involve provision of new internal floors, re-pointing of some brickwork, filling and repairing of cracks in masonry walls and internal painting. Also, the existing fibro roof sheeting will need to be replaced and it is likely that the roof beams will need packing due to the settlements that have taken place.
5. If you wish any further information, please do not hesitate to contact us.

Yours faithfully;  
GRANT ALEXANDER & ASSOCIATES PTY LTD.

G.B.Alexander B.E., BSc., R.P.E.Q

**Grant Alexander & Associates Pty. Limited**  
**CONSULTING ENGINEERS & GEOLOGIST**  
40 Soldiers Road, Jannali, NSW 2226 - Telephone: (02) 528-5625  
Postal Address: PO Box 109, SUTHERLAND, NSW 2232

GA:ca:4430/01

The Town Clerk  
Randwick Municipal Council  
Francis Street,  
RANDWICK NSW 2031

Attention: Mr. P. Stone

Dear Sirs,

RE:                    STRUCTURAL DAMAGE EVIDENT IN THE SENIOR  
CITIZENS HALL, BROOK STREET COOGEE OVAL.

1.     The building comprises a single storey masonry structure with a suspended timber floor. Original plans indicate that the brick footings were constructed as shallow depth to support the masonry walls. The exact age of the building is uncertain but design plans are dated August, 1958.
2.     Substantial differential settlements beneath the structure have resulted in severe cracking of the masonry walls. Major areas of damage include the cracking and rotation of the south-eastern corner, cracking of the internal masonry wall dividing the foyer from the hall and cracking in the eastern half of the northern external wall. In addition, there are other areas of less severe cracking and overall there appears to be damage throughout the entire shell of the building.
3.     From our inspection, we consider that the damage cannot be rectified by cosmetic treatments such as repointing the brickwork and that unless the cause of the problem is addressed:-
  - \*        Cracking and distortion of the shell will continue; and
  - \*        Within the next few years the structure would have to be condemned as unsafe.

The root cause of the problem is consolidation of the foundation beneath a footing system that has little tensile strength or ability to resist removal of support without settlement.

4.     As replacement of the masonry wall is not considered practical, options available are limited to repair of the existing structure or demolition the building. Remedial measures to repair the existing structure would involve underpinning the walls with a footing system that would allow jacking of the walls. Such systems could include:-
  - \*        Chemical grouting of the foundation around the entire perimeter; and

- Construction of a reinforced concrete footing supported on piers founded below the compressible foundation.

However, such works are extremely expensive and time consuming. Repair works would probably take at least four months to carry out and it is unlikely that the cost of the repairs would be less than the cost of a new building. Further, the building could not be used during repairs.

5. In summary, it is our opinion that repair costs to the existing building are likely to exceed the cost of a new structure and that without repair works the building will shortly reach an unsafe condition. Hence, we would recommend that the existing structure be demolished. If you should require any further information, please do not hesitate to contact us.

Yours faithfully;  
GRANT ALEXANDER & ASSOCIATES PTY.LTD.

G.B.Alexander B.E., BSc., R.P.E.Q.

## COOGEE OVAL DRAFT PLAN OF MANAGEMENT RESIDENTS SURVEY

The following survey aims to identify issues relevant to the future use, development and management of Coogee Oval. Residents are being asked by Council to identify issues that they consider need to be addressed in the preparation of Council's Draft Plan of Management for Coogee Oval and its immediate surrounding parkland.

In the space provided, please enter a brief description of issues of concern to you. For example, you may consider that litter is a problem after sporting events are held on the week-ends. You would then enter this issue in the appropriate section.

**Issue 1** .....

**Issue 2** .....

**Issue 3** .....

**Issue 4** .....

**Issue 5** .....

Please use the reverse side for additional issues or comments. Return your comments in the enclosed pre-paid envelope by 19th February, 1996. Thank you for your participation in this survey. Your time and effort is appreciated. If you wish, please enter your name and address on the reverse side of the form.

Should you have any inquiries regarding this matter please contact Mr Gary Eastman on 9399.0931.

# COOGEE RESIDENTS QUALITY OF LIFE SURVEY RESULTS - COOGEE OVAL

ITEM	KEY WORD Response Rate by Number	SUMMARY OF COMMENTS
(1) Litter in and around the perimeter streets of the Oval.	33	<p><i>Perceived main offenders were:</i></p> <ul style="list-style-type: none"> <li>Sports spectators at the Oval visiting and leaving the Oval.</li> </ul> <p><i>Identified problem areas:</i></p> <ol style="list-style-type: none"> <li>Coogee Oval.</li> <li>Alfreda Street.</li> <li>Arden Street.</li> <li>Brook Street.</li> </ol> <p><i>Suggested improvements:</i></p> <ul style="list-style-type: none"> <li>More litter bins and to have the litter removed more frequently.</li> </ul>
(2) Availability for vehicle parking for residents and visitors.	30	<p><i>Identified problem areas:</i></p> <ol style="list-style-type: none"> <li>Ormond Avenue.</li> <li>Bream Street.</li> <li>Brook Street</li> <li>Alfreda Street</li> <li>Dolphin Street</li> <li>Glenwood Avenue</li> </ol> <p><i>Suggested improvements:</i></p> <ul style="list-style-type: none"> <li>Provide disabled persons parking bays.</li> <li>More parking police patrols on week-ends.</li> <li>Increase public transport to the Oval on week-ends.</li> <li>Introduce Resident Parking Permits.</li> <li>Provide parking for resident's visitors.</li> </ul> <p><i>Note:</i></p> <p>Residents indicated that they were concerned as to the impact on parking if there is any proposal to increase the use Oval.</p>
(3) Visual Amenity	15	<ul style="list-style-type: none"> <li>Enforce Dog Act, 1966 and penalise dog owners using the Oval.</li> <li>Need to reduce the pollution by dogs on the pavements around the Oval.</li> <li>Need to consider types of finishes, fixtures and fittings for buildings and street furniture to prevent vandalism.</li> <li>Remove garbage truck from the Oval's eastern car park.</li> <li>The poor appearance of East Ward Senior Citizens Club relative to the general character of the Oval.</li> <li>The temporary scaffold constructed grandstands are considered unsightly.</li> <li>The Hessian screens detract from the visual amenity of the Oval.</li> <li>Alfreda Street fencing is unsightly.</li> <li>The lack of trees lining the surrounding streets.</li> <li>The lack of community art.</li> <li>The maintenance of storm drains, gutters, grass and weeds on the pavement.</li> </ul>
(4) Crowd Behaviour	11	<ul style="list-style-type: none"> <li>Crowd sizes too large and boisterous.</li> <li>Alcohol induced patrons unacceptable behaviour after leaving the Oval.</li> </ul>

# COOGEE RESIDENTS QUALITY OF LIFE SURVEY RESULTS - COOGEE OVAL

ITEM	KEY WORD Response Rate by Number	SUMMARY OF COMMENTS
(5) The need for policies and guidelines to address specific issues relative to the management and use of the Oval.	7	<ul style="list-style-type: none"> <li>Permit only locals to use the Oval, no major events.</li> <li>Increase local access to small to medium groups and for local residents - walking and jogging.</li> <li>Local users given priority - including schools.</li> <li>Male dominated sports venue.</li> <li>Not to permit concerts, fairs or Mardi Gras type activities</li> <li>Police the use of the Oval by unauthorised personnel.</li> <li>Preference not to extend the hours of operation for the Oval.</li> </ul>
(7) Traffic & Pedestrians	5	<ul style="list-style-type: none"> <li>Restrict vehicle speeds around the Oval.</li> <li>Not enough one way signs in Alfreda Street.</li> <li>No pedestrian crossing at Arden and Dolphin Street roundabout.</li> <li>Poor condition of the road and footpath in Alfreda Street.</li> <li>The eastern car park being used as a camping ground.</li> </ul>
(6) Alcohol	4	<ul style="list-style-type: none"> <li>No dinking within the Oval.</li> <li>Drunks leaving the Oval (Refer to Item 4).</li> </ul>
(8) Development	4	<ul style="list-style-type: none"> <li>The need to limit the height of any proposed new structures so as not to detract from the visual amenity of the Oval.</li> <li>Preference for limited development of the Oval.</li> <li>Council not to permit any large structures to be built on site which would block or inhibit the view of the Oval from local residential premises.</li> <li>No large grandstands.</li> <li>No extension to the grandstand.</li> <li>Retain the playground.</li> <li>Install ball protection nets around the back of the goal post.</li> <li>Provide shaded cover over the outdoor seating.</li> </ul>
(9) Youth & Children's Issues	3	<ul style="list-style-type: none"> <li>Restrict skateboards using the eastern car parking area.</li> <li>Increase the opportunities for children to use the Oval.</li> <li>Provide skateboard and street sports facilities.</li> </ul>
(10) Configuration of the Football Field	2	<ul style="list-style-type: none"> <li>Re-configure the football field east/west.</li> </ul>
(11) Approval of current Management Practices	2	<ul style="list-style-type: none"> <li>Do nothing, leave the Oval as is.</li> </ul>
(12) Lighting	1	<ul style="list-style-type: none"> <li>Do not upgrade the floodlighting for night games.</li> </ul>
(13) Improve Plant Maintenance & Replacement	1	<ul style="list-style-type: none"> <li>Norfolk Pines and tree screens being damaged.</li> <li>Maintenance of the trees in Alfreda Street.</li> </ul>
(14) Physical and Psychological Safety	1	<ul style="list-style-type: none"> <li>Thin out the thick vegetation on the corner of Dolphin and Brook Streets.</li> </ul>



## COOGEE OVAL DRAFT PLAN OF MANAGEMENT VISITOR SURVEY



Visitors are being asked by Council to identify issues that they consider need to be addressed so as to improve the services, amenities and general appearance of Coogee Oval. In the space provided, please answer the following questions.

- (1) What recommendations would you make to Council to improve Coogee Oval as a sporting venue for spectators ?

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- (2) Did you travel to Coogee Oval by car ? Please tick either YES ☐ or NO ☐

Map 1

- (a) If you travelled by car to the Oval please indicate on the map provided the approximate location where you or the driver parked the vehicle, OR

- (b) If you parked outside the mapped area please tick one of the following boxes.

- North of the mapped area ☐
- South of the mapped area ☐
- West of the mapped area ☐

- (3) If you've visited other Council managed Ovals outside of the City of Randwick during this or last season to watch sporting events which Oval impressed you the most and for what reasons ?

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- (4) What do you dislike about Coogee Oval as a sports venue ?

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Please enter your Post Code:     Your Age   Tick One: Female ☐ Male ☐

Please place your completed surveys in the survey return bins located at the bottom of the stairs to the grand-stand and at the kiosk or post your survey to Randwick City Council using the attached pre-paid self addressed envelope. Thank you for your participation in this survey.

# PARK VISITOR SURVEY RESULTS - COOGEE OVAL

ISSUE	KEY WORD Response Rate by Number	SUMMARY OF COMMENTS
<b>Question 1      What recommendations would you make to Council to improve Coogee Oval as a sporting venue for spectators ?</b>		
Scoreboard & Game Timing Clock	29	<ul style="list-style-type: none"> <li>• Install a scoreboard and game time clock.</li> </ul>
Seating	26	<ul style="list-style-type: none"> <li>• Improve the comfort level of the aluminium seating. Seating is cold with no back support.</li> <li>• Install more seating on the eastern side of the field.</li> <li>• Provide elevated seating for the disabled.</li> </ul>
Grandstand	23	<ul style="list-style-type: none"> <li>• Repair the grandstand.</li> <li>• Increase the size of the grandstand.</li> <li>• Construct two more temporary grandstands on the eastern side of the Oval.</li> <li>• Construct a central grandstand on either or both the eastern and western sides of the Oval. Provide underground parking.</li> </ul>
Shelter	17	<ul style="list-style-type: none"> <li>• Provide additional shelter from the weather.</li> </ul>
Vehicle Parking	14	<ul style="list-style-type: none"> <li>• Increase the availability of vehicle parking at the Oval.</li> </ul>
Public Amenities & Facilities	8	<ul style="list-style-type: none"> <li>• Provide toilets on the eastern side of the Oval.</li> <li>• Clean ladies toilets more often.</li> <li>• Provide hot water in the referees room.</li> <li>• Install taller goal posts.</li> <li>• Provide more food outlets.</li> <li>• Extend the public address system.</li> </ul>
Playing Surface	6	<ul style="list-style-type: none"> <li>• Improve the playing surface</li> </ul>
Lights	4	<ul style="list-style-type: none"> <li>• Permit night games.</li> </ul>
Access	4	<ul style="list-style-type: none"> <li>• Provide easier access to all areas of the grounds to reduce crowding around the existing entrances, amenities and facilities.</li> <li>• Improve access to the Oval to more sports groups.</li> </ul>
Do nothing	2	<ul style="list-style-type: none"> <li>• Leave the Oval as is.</li> </ul>
Increase the number of activities at the Oval	1	<ul style="list-style-type: none"> <li>• Permit more sports games at the Oval.</li> </ul>
Fencing	1	<ul style="list-style-type: none"> <li>• Enclose the Oval.</li> <li>• Maintain fences.</li> <li>• Provide picket fencing on the northern side of the Oval.</li> </ul>
Unauthorised use	1	<ul style="list-style-type: none"> <li>• Improve the policing of unauthorised use of the Oval.</li> </ul>



# PARK VISITOR SURVEY RESULTS - COOGEE OVAL

ISSUE	Response Rate	COMMENTS
<b>QUESTION 2. Did you travel to Coogee by car ?</b>		
YES	75	Of those surveyed 8 persons indicated they travelled to the Oval by car but did not indicate where the vehicle was parked on the day.
NO	11	11 persons indicated that they travelled to the Oval by other means, e.g. foot, bicycle, public transport.
No Response	2	2 of those surveyed failed to respond this question.

**QUESTION 2(a) If you travelled by car please indicate on the map provided the approximate location where you or the driver parked the vehicle, OR**

**QUESTION 2(b) If you parked outside the mapped area please tick one of the following boxes.**

- North of the mapped area ☐
- South of the mapped area ☐
- West of the mapped area ☐

**Note:** Mapped area was generally bounded by Abbott & Acadia Streets to the North, Kidman Street to the South, Melody Street to the West and Coogee Beach to the East.

Parking Location		
Arden Street.	4	There was a strong preference to park either in Dolphin Street or streets north of Coogee Oval. There is relatively fierce competition for parking around the Oval. The distribution may indicate that some of the wider back streets north of the Oval, including the far western section of Dolphin Street, should be considered for angle parking. Narrow cul-de-sac streets such as Ormond and Glenwood Streets should be considered for restricted visitor parking and accommodate preferred resident parking.
Alfreda Street.	4	
Arcadia Street.	1	
Bream Street.	7	
Brook Street.	8	
Beach Street.	3	
Coogee Bay Road.	2	
Dolphin Street.	12	
Hill Street.	1	
Melody Street.	1	
Mount Street.	2	
Ormond Street.	4	
Randwick Rugby Club.	3	
Parking position not indicated.	8	
North of mapped area.	9	
South of mapped area.	2	
West of mapped area.	4	

# PARK VISITOR SURVEY RESULTS - COOGEE OVAL

ISSUE	Response Rate	COMMENTS
<b>QUESTION 3. If you visited other Council managed Ovals outside the City of Randwick during this or last season to watch sporting events which Oval impressed you the most and for what reasons?</b>		
North Sydney Oval	20	Superior playing surface. Plenty of seating. Weather protection. Good spectator facilities. Trees. Children's area.  Pleasant amenities. Good scoreboard. Good grandstand. Comfortable seating. Bar facilities. Clean environment.
Warringah Oval	5	Good facilities.  Wet weather seating.
Waratah Oval	2	Ample parking. Good steep raked grandstand. Facilities close to the grandstand.
Chatswood Oval Concord Oval Drummoyn Oval Pittwater Oval Manly Oval T.G. Milner Field Eastwood Oval	8	Good vehicle parking. Seating and amenities in general. High seating overlooks entire playing field.
Granville Oval	1	General amenity of the environment.

## **QUESTION 4. What do you dislike about Coogee Oval as a sports venue ?**

Listed are those items previously not mentioned in Question 1 of the survey by the respondents.

- Position of grandstand.
- Being under the flight path.
- Hessian fencing.
- No bus parking for visiting teams.
- Too cluttered for spectators.

**PARK VISITOR SURVEY - COOGEE OVAL, RESPONSE POSTCODE**

PARK VISITOR SURVEY - COUGEE OVAL, RESPONSES POSTCODE							
POSTCODE	No.	POSTCODE	No.	POSTCODE	No.	POSTCODE	No.
2000	1	2035	7	2118	2	2605	1
2018	4	2036	1	2130	1	2607	1
		2037	3	2154	1	2611	1
2020	1	2039	2	2170	1	2614	1
2021	1	2042	1	2190	2	2617	1
		2043	1	2196	1	2624	1
2022	1	2044	1	2205	1	2899	1
2024	5	2050	2	2210	1	2902	1
2028	1	2070	1	2225	1	2903	1
2031	10	2079	1	2575	2	2899	1
2032	2	2095	2	2582	1	2902	1
2034	9	2109	1	2601	1		
No Response 4			Total 88		Highest attendance at the Oval on the day of the survey were from the suburb of: RANDWICK followed by: MAROUBRA		

**PARK VISITOR SURVEY - COOGEE OVAL,  
RESPONDENCE GENDER & AGE DISTRIBUTION**

RESPONDENCE GENDER & AGE DISTRIBUTION								
AGE	male	female	AGE	male	female	AGE	male	female
10-15	0	0	36-40	2	2	61-65	3	1
16-20	3	1	41-45	6	3	66-70	4	2
21-25	4	3	46-50	7	7	71-75	1	0
26-30	7	1	51-55	6	2	76-80	0	3
31-35	3	0	56-60	5	3	80+	2	0
Total Male : 53 60.23%						Mean Age: 48.8 years		
Total Female : 28 31.82%						Mode Age: 50.0 years		
No Response : 7 7.95%								
Total Responses : 88 100.00%								

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