

2011SYE085 – 288,310-328, 330 & 434 Captain Cook
Drive, Kurnell

DA11/0665

ASSESSMENT REPORT APPENDICES

Appendix	A	Draft Conditions of Consent
	B	Submission from Office of Environment & Heritage
	C	Internal response - Manager Environmental Science & Policy
	D	Further internal response - Manager Environmental Science & Policy – regarding OEH submission
	E	Internal response - Assessment Engineer
	F	Internal response – Manager Traffic & Transport
	G	Further response – Manager Traffic & Transport regarding recommendation from Consultative Traffic Forum
	H	Internal response – Natural Areas Manager
	I	Internal response – Manager Community Services

DRAFT CONDITIONS OF DEVELOPMENT CONSENT
Development Application No. DA 11/0665

GENERAL CONDITIONS MASTERPLAN DEVELOPMENT

These general conditions are applicable to all stages of the proposed development and are imposed to ensure that the development is carried out in accordance with the development consent having regard to the environmental circumstances of the site.

1. Approved Plans and Documents

The development shall be implemented substantially in accordance with the details and specifications set out on the Job Number G887EG, Drawing No. P6-1 Issue B, P6-2 Issue H, P6-3 Issue A, P6-4 Issue G, P6-5 Issue J, P6-6 Issue E, P6-7 Issue C, P6-8 Issue C, P6-9 Issue B, P6-10 Issue C, P6-11 Issue D, P6-12 Issue D, P6-13 Issue E, P6-14 Issue C, P6-15, Issue E, P6-16 Issue C, P6-17 Issue B, P6-18 Issue E all dated 7/7/2011 prepared by Insites, Masterplan Landscape Concept Plans L01/04, L02/04, L03/04 and L04/04 all Issue D and all dated 14/04/2011 prepared by JMD design/Insites, Proposed Plan of Subdivision Stages 1B, 2 and 3 Issue 2 dated 11/7/2011 prepared by Cooper and Richards Surveyors, any details on the application form and on any supporting information received with the application except as amended by the conditions specified and imposed hereunder.

Note 1:

Nothing in this development consent whatsoever approves or authorises the commencement, erection or construction of any building, construction or subdivision works.

Note 2:

Prior to the commencement of any building, construction, or subdivision work being carried out a 'Construction Certificate' shall be obtained from Council or an Accredited Certifier.

Note 3:

Should the development, the subject of this consent, involve the subdivision of land and the issue of a subdivision certificate as defined under section 109c(1)(9) of the Environmental Planning and Assessment Act 1979, please note that Sutherland Shire Council must be appointed as the Principal Certifying Authority for all subdivision works.

Note 4:

Prior to any work being carried out relating to the development the subject of the consent, the person implementing the consent shall provide Council with:

- a) Notification of the appointment of a Principal Certifying Authority and a letter of acceptance from the PCA.
- b) Notification of the commencement of building and/or subdivision works with a minimum of 2 days notice of such commencement.

Note 5:

Should the development have a BASIX Certificate, your attention is drawn to the

commitments made in the BASIX Certificate which forms part of the development consent and the necessity to comply with these as required under the Environmental Planning and Assessment Act 1979.

2. Staged Development

Due to the scale and complexity of the proposed development, Development Consent is granted for that part of the proposal comprising the Masterplan and proposed Stage 1A including the subdivision of the existing allotments and the creation of Public Roads. The following specified parts or aspects of the development shall be the subject of a further application for development consent:

- a) Stage 1b,
 - b) Stage 2,
 - c) Stage 3,
- and any subsequent sub-stages of a), b) and c) above.

Nothing shall prevent the staging of any individual stage of the Masterplan proposal.

3. Requirements of IDA Approval Authorities

The development shall be conducted in accordance with all conditions of approval of the following Approval Authorities under Section 91A of the Environmental Planning and Assessment Act 1979:

- NSW National Parks and Wildlife Service (Office of Environment and Heritage)

Note: The Office of Environment and Heritage (OEH) granted an Aboriginal Heritage Impact Permit for the site (AHIP # 1131103) on 18 October 2011. As the results of this testing programme is not known at the time of granting this consent, the applicant shall comply with the following condition imposed by OEH:

"If Aboriginal object will be harmed as a result of the proposed works, an AHIP must be obtained prior to harm taking place. Applications for AHIPs must be made in accordance with OEH requirements, details of which can be found at:

<http://www.environment.nsw.gov.au/licences/ahips.htm>".

4. Approvals Required under Roads Act or Local Government Act

The following works or activities shall not be carried out on public land (including a road) adjacent to the development site without approval under the Roads Act 1993 and/or the Local Government Act 1993:

- a) Placing or storing materials or equipment;
- b) Placing waste containers or skip bins;
- c) Pumping concrete from a public road;
- d) Standing a mobile crane;
- e) Pumping stormwater from the site into Council's stormwater drains;
- f) Erecting a hoarding;
- g) Establishing a construction zone;
- h) Opening the road reserve for the purpose of connections including

- telecommunications, water, sewer, gas, electricity and stormwater; or
- i) Constructing a vehicular crossing or footpath.

An application, together with the necessary fee, shall be submitted and approval granted by Council prior to any of the above works or activities commencing.

Note - Approval under the Roads Act or Local Government Act cannot be granted by a Principal Certifying Authority or by a Private Certifier. Failure to obtain approval may result in fines or prosecution.

5. Acid Sulfate Soil Management

Acid Sulfate Soil Management Plan shall be prepared and adhered to for the duration of works. All works must be carried out in accordance with the aforementioned document, under the supervision of a suitably qualified environmental scientist.

6. Re-use of Stripped Vegetation

Any vegetation stripped from the site that is not suitable for mulching and reuse shall be disposed of off-site or buried within the general landscape areas beyond the playing fields, roads and amenities. Buried vegetation shall not exceed 200mm in thickness in any one area.

7. General Condition 2

The design of the amenities building shall comply with the requirements of Australian Standard AS1428.1 and 1428.2.

8. Public Liability Insurance

Prior to the commencement of work or the issue of a Construction Certificate, the owner or contractor shall take out a Public Liability Insurance Policy with a minimum cover of \$10 million in relation to the occupation of and works within Council's road reserve, for the full duration of the proposed works. Evidence of this policy shall be submitted to Council prior to commencement of work or the issue of a Construction Certificate.

MATTERS RELATING TO THE ISSUE OF MASTERPLAN CONSTRUCTION CERTIFICATES

The following conditions involve either modification to the development proposal or further investigation prior to the issue of a Construction Certificate, so as to ensure that there will be no adverse impact on the environment or adjoining development. This information shall be submitted with the Construction Certificate.

Design Conditions

These design conditions are imposed to ensure the development, when constructed, meets appropriate standards for public safety and convenience.

9. Design Changes Required

To reduce the environmental and/or ecological impact of the development proposal, the following design changes shall be implemented to the Masterplan for the development:

- a) No exotic species shall be utilised for the re-vegetation and/or landscaping of the area of the Masterplan with the exception of turf for the playing fields and overflow parking/warm-up facilities.
- b) The proposed track leading from Charlotte Breen Reserve to the new playing fields and associated facilities shown on VPA Facilities (p.12), shall be relocated to the position of the existing track, known as "Boes' Track", from the Reserve lookout along the Sydney Water lands to the pedestrian link north of the Heritage Dune.
- c) The proposed Landscape Planting Schedule for the playing fields Masterplan development should include consideration of *Melaleuca ericifolia* and *Imperata cylindrica*. *Angophora costata* should be deleted along the Captain Cook Drive frontage and be replaced with *Banksia integrifolia*, *Casuarina glauca* and to a lesser extent, *Cupaniopsis anacardioides*. *Araucaria heterophylla* should be deleted from the proposed species list. The following proposed species shall be deleted and replaced with the species detailed in bold in brackets, *Banksia aemula*, (***Banksia serrata***), *Eucalyptus haemastoma*, (***Eucalyptus robusta***), *Hakea dactyloides*, (***Allocasuarina littoralis***), *Poa labillardiera*, (***Danthonia tenuior***).
- d) Provision shall be made as part of the design of the carpark areas within the various stages of the development for the parking of additional tourist coaches on hardstand pavement due to the remote nature of the facilities together with the limited public transport available with total provision as follows:-
 - i) Stage 1B, Three Coaches
 - ii) Stage 2, Three Coaches,
 - iii) Stage 3, Four Coaches.
- e) The proposed multi-purpose pathway shall be maintained wholly within the site of the Stage 1A and Stage 1B boundaries and within the boundaries of the proposed Superlot, Lot 5, being outside the boundaries of Captain Cook Drive.
- f) The proposed multi purpose pathway within Stage 1B shall be extended such that it provides access to all playing fields within the Stage 2 development.
- g) The proposed multipurpose pathway shall form an Accessible Path of Travel compliant with AS1428.1 and 2.
- h) Provision shall be made within all stages for access by service and maintenance vehicles, minimum Medium Rigid Vehicle as defined by Australian Standard AS2890.2, to all playing fields, infiltration basins and the like. This may be combined with the multipurpose pathway where applicable.
- i) All Handicapped Persons parking spaces in all Stages shall be located immediately adjacent the pedestrian access facilities for the amenities buildings and shall comply with the requirements of Australian Standard AS2890.6. At grade or

Accessible Path of Travel suitable kerb crossing ramps shall be provided where required.

- j) All proposed "Frog Ponds" are to be fenced to prevent access by pedestrians. This fencing shall be recessive in colour and shall also form part of a vegetative barrier to provide a softer edge to the pond/s.
- k) The eastern carpark for the Stage 3 development shall provide for two-way movement of vehicles and shall incorporate a turning area at its northern extremity to permit vehicles to return to the south of the parking bays without blocking vehicles entering the carpark from the Road. The minimum queueing distance provided shall comply with the requirements of Australian Standard AS2890.1.
- l) The subdivision of the proposed allotments within the Master Plan shall provide no landlocked internal allotments as part of the staging process.
- m) All grassed, non mass-landscaped cut or fill batters shall be restricted to a maximum gradient of 25% ,1 in 4, to permit mowing.
- n) All intersection designs within the development and where applicable, the internal carparking areas shall be designed to accommodate the swept vehicle manoeuvring area of a Heavy Rigid Vehicle as defined by Australian Standard AS2890.2 as this vehicle forms the basis of the design dimensions of a tourist coach.
- o) The large Infiltration Basins shall have a maximum side slope gradient of 1 in 8, (12.5%), to enhance safety when the basins are full after storm events.

Details of these design changes shall accompany the Construction Certificate.

10. Design and Construction of Works in current and future Public Areas

Council has determined that the proposed development generates a need for the following works to be undertaken by the Applicant in the Road Reserve:

- (a) A temporary concrete footpath crossing for construction vehicle access if required.
- (b) Road pavement construction as detailed on Council's design plan.
- (c) Stormwater drainage works.
- (d) The full construction of traffic facilities, including intersections within Captain Cook Drive providing access to the playing fields and at Captain Cook Drive at the Lindum Road intersection together with any associated traffic management devices, line marking and signposting. The design of these intersections shall incorporate the swept manoeuvring area of a 25.0m B-Double vehicle.
- (e) Construction of kerb and gutter and/or an edge beam across the frontage of the site where required to support the road pavement (e.g. adjacent to acceleration lanes).
- (f) Construction of a grass swale across the full frontage of the site
- (g) Regrading, topsoiling and turfing of the footpath area to final design levels across the full frontage of the site and across adjacent properties where

- existing levels are altered, to all disturbed areas with the regrading and turfing to match the level and location of the proposed grassed drainage swale.
- (h) Erosion and sediment controls including a shaker pad and wheel wash-down facilities with these facilities to remain in place for the entire construction period.
 - (i) Adjustment to, provision of additional conduits and services for or amplification of public utility services, cable television, security camera and telecommunications infrastructure where required both external and internal to the site and to also provide for such services to the amenities buildings.
 - (j) Landscaping of the public domain in association with the landscaping of the development site in accordance with the approved plans.
 - (k) Construction of traffic facilities including those required to provide access during the course of construction.
 - (l) Provision of linemarking and signposting other than at the proposed intersections as detailed on the design plan.

An application under the Roads Act, together with the necessary fee, shall be submitted and alignment levels shall be issued by Council prior to the issue of a Construction Certificate. Approval under the Roads Act cannot be granted by a Principal Certifying Authority or by a Private Certifier. Failure to obtain approval may result in enforcement action by Council.

Survey and design plans for the above works must be approved by Council's Engineering Division and Council's Civil Assets Manager.

11. Site Management Plan

An Environmental Site Management Plan shall accompany the Construction Certificate. This plan shall satisfy the Objectives and Controls in Part 4 of Chapter 8 of Sutherland Shire Development Control Plan 2006 and shall address the following:

- a) What actions and works are to be employed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from building activities, crossings by heavy equipment, plant and materials delivery, and the like.
- b) The proposed method of loading and unloading excavation machines, building materials.
- c) Areas within the site to be used for the storage of excavated material, construction materials and waste containers during demolition / construction.
- d) How it is proposed to ensure that material is not transported on wheels or tracks of vehicles or plant and deposited on surrounding roadways.
- e) The proposed method of support to any excavation adjacent to adjoining properties, or the road reserve. The proposed method of support is to be certified by a Certifier accredited in civil engineering.
- f) The provision of temporary fencing to secure the work site (fencing, hoarding or awnings over public land require Council approval under the Roads Act).
- g) The control of surface water flows within and through the construction site to minimise erosion and movement of sediment off site.
- h) The type and location of erosion and sediment control measures, strategies to minimise the amount of soil uncovered at any time, the conservation of topsoil for re-use on site, the location and protection of stockpiles.

- i) Identify all trees that are to be retained and the measures proposed to protect them (including fencing, mulching, watering, erection of signs excluding access to the protection zone, etc), and identify areas for revegetation.

Note: The footpath and road reserve shall not be used for construction purposes (including storage of skips or building materials, standing cranes or concrete pumps, erecting hoardings, or as a construction zone) unless prior approval has been granted by Council under the Roads Act 1993.

12. IDA Requirements – Construction Certificate

The Construction Certificate shall be accompanied by certification by a suitably qualified person confirming that the Construction Certificate plans meet with the requirement of the IDA approval authority(s).

13. Soil and Water Management

Prior to the commencement of works or the issue of a Construction Certificate, the applicant shall submit to and obtain Council approval of a Soil and Water Management Plan and Statement which clearly identifies site features, constraints and soil types together with the nature of proposed land disturbing activities and also specifies the type and location of erosion and sediment control measures and also rehabilitation techniques necessary to deal with such activities.

The Plan shall take into account the objectives of Council's Environmental Site Management Development Control Plan and shall be compatible with any Construction Management Plan thus ensuring the following objectives are achieved, namely:

- a) All possible sediment controls are installed before commencing work.
- b) To minimise the area of soils exposed at any one time.
- c) To conserve topsoil for re-use on site.
- d) To identify and protect proposed stockpile locations.
- e) Provide an indication of all existing trees present on the site or which are affected by the works on the site including trees on adjoining properties together with the location of the full extent of protective fencing and other tree protection barriers and root protection bridging structures and the like to be utilised in locations agreed with the project arborist. The trees are to be indicated as "tree to be retained" and or "tree to be removed".
- f) To preserve existing vegetation and identify revegetation techniques and materials.
- g) To control surface water flows through the development construction site in a manner that:
 - i) Diverts clean run-off around disturbed areas.
 - ii) Minimises slope gradient and flow distance within disturbed areas.
 - iii) Ensures surface run-off occurs at non-erodable velocities.
 - iv) Ensures disturbed areas are promptly rehabilitated.
- h) Trap sediment on site to prevent off site damage. Hay bales are not to be used as sediment control devices. To ensure regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works until the site is stabilised (includes landscaping).

14. Vegetation Management Plan (VMP)

In order to ensure the retention, restoration and revegetation of the subject site, a Vegetation Management Plan (VMP) shall be prepared and submitted to Sutherland Shire Council for approval prior to the issue of a Construction Certificate.

The VMP shall address the management of vegetation within the area covered by the Masterplan and may be produced in stages to accord with the applicable stage or sub-stage Development Application.

The VMP must include (but not necessarily be limited to) the following two phases relating to vegetation management:

Establishment Phase:

- ☐ A figure/ plan showing the different management zones on the site;
- ☐ The exact location of vegetation to be removed and retained on the site as part of the development proposal;
- ☐ Details of any revegetation works, including a list of species to be utilised during replanting on site (including species appropriate for the different management zones);
- ☐ Planting densities and species mix for replanting;
- ☐ Specific landscaping treatments in each zone (e.g. fuel management, mulching, soil and stormwater management);
- ☐ Clearly defined vegetation protection areas (including exact location of trees and vegetation to be retained and removed), provided on a plan;
- ☐ Vegetation and tree protection measures to be employed in vegetation protection areas, as well as activities that are permitted to take place in these areas;
- ☐ .Species identification and location of all weeds on site, and management techniques for the control of each.

Maintenance Phase:

- ☐ Specific management timeframes, performance monitoring and maintenance, and links to performance measures as well as expected outcomes and responses;
- ☐ Specific management responsibilities;
- ☐ Any other habitat management or improvement measures deemed suitable for the site.

The VMP shall be prepared by an appropriately qualified horticulturist / bush regenerator / ecologist.

15. Volumes of Fill Material

Volumes of any fill material to be brought onto the site shall be calculated and incorporated into the Environmental Management Plan for the Stage 1A works prior to the issue of any Construction Certificate.

16. Stormwater and Groundwater Management

Approval shall be obtained from the NSW Office of Water for the proposed stormwater and groundwater management works prior to the issue of a Construction Certificate.

17. Groundwater Monitoring Program

Prior to the issue of any Construction Certificate for any stage of the Masterplan development, the Environmental Management Plan shall be amended to include a Groundwater Monitoring Program. This program shall be developed by a suitably qualified consultant and shall include the location of all groundwater monitoring points such that the groundwater monitoring can be undertaken in perpetuity. The content of the plan must be agreed with Council's Principal Environmental Scientist before it is produced.

18. Landscape and Rehabilitation Management Plan

In order to ensure the retention, restoration and revegetation of the subject site, a Landscape and Rehabilitation Management Plan (LRMP) shall be prepared and submitted to Sutherland Shire Council for approval prior to the issue of a Construction Certificate.

The LRMP shall address the management of vegetation within the entire site (Masterplan) and shall address the management and rehabilitation of vegetation to be carried out within each stage of the development. A detailed LRMP shall be submitted for each subsequent development application relating to the area of land covered by that stage.

The LRMP must include (but not necessarily be limited to) the following two phases relating to vegetation management:

Establishment Phase:

- A figure/ plan showing the different management zones on the site;
- The exact location of vegetation to be removed and retained on the site as part of the development proposal;
- Details of any revegetation works, including a list of species to be utilised during replanting on site (including species appropriate for the different management zones);
- Planting densities and species mix for replanting;
- Specific landscaping treatments in each zone (e.g. fuel management, mulching, soil and stormwater management);
- Clearly defined vegetation protection areas (including exact location of trees and vegetation to be retained and removed), provided on a plan;
- Vegetation and tree protection measures to be employed in vegetation protection areas, as well as activities that are permitted to take place in these areas;
- Species identification and location of all weeds on site, and management techniques for the control of each.

Maintenance Phase:

- Specific management timeframes, performance monitoring and maintenance, and links to performance measures as well as expected outcomes and responses;
- Specific management responsibilities;
- Any other habitat management or improvement measures deemed suitable for the site.

The LRMP shall be prepared by an appropriately qualified horticulturist / bush regenerator / ecologist.

19. Green and Golden Bell Frogs

A Green and Golden Bell Frog Management Plan shall be prepared for all stages of the proposed Masterplan. This Management Plan shall be prepared by a suitably qualified and experienced Independent Expert in the field and shall provide detail including but not limited to the design, level and form of the habitat ponds including the lands above the permanent water level, depth of the ponded waters, the methods to be employed to maintain the permanent water body levels and depth, the plantings required and their density to ensure the maintenance of the water quality of the ponds, the types of vegetation to be employed surrounding the ponds, the landform surrounding the ponds, the methods to be employed to prevent gross pollutants entering the pond system, the methods to be employed to ensure that fertilisers, chemicals and the like used to maintain the surrounding playing fields or as pollutants contained within stormwater run-off from access roads and paths cannot enter the pond system/s, the methods to be employed to prevent access to the pond areas by other than maintenance personnel ensuring sympathetic treatment with the overall Landscape Plan and the means of continuous monitoring of the habitat area in perpetuity. Certification shall be provided by the Independent Green and Golden Bell Frog Expert that all of the matters detailed in the Green and Golden Bell Frog Management Plan have been incorporated in the design of the ponds within each Stage prior to the issue of any Construction Certificate for each Stage.

Prior to the issue of any Construction Certificate, the Environmental Management Plan for the site shall be amended to include the report and recommendations of the Green and Golden Bell Frog Management Plan including its habitat areas.

20. Lighting

Lighting is to be provided to all access roads, car parking areas, amenity buildings and their associated general areas together with all sections of the proposed Multi-Purpose Pathway remote from those areas to Australian Standard AS1158.

21. General Construction Certificate Condition 8

All Amenities Buildings are to incorporate a Rainwater re-use system which includes a potable water back-up system for toilet flushing.

22. General Construction Certificate Condition 10

To minimise the risk of importing adverse pathogens including but not limited to the

chytrid fungus to the site of all proposed works, testing of composts and all other imported materials prior to their use on the sites shall be carried out in a manner approved by the Independent green and Golden Bell Frog Expert.

23. General Construction Certificate Condition 11

Geotechnical testing and a report shall be prepared relative to the filling and subsequent compaction of the area of the playing fields to ensure the suitability of all these areas for their intended purpose including the proposed hockey fields that are to be constructed with a concrete base course and artificial turf surface. The basis for this report shall be Council's "Specification for Civil Works" and any specific requirements of the NSW Hockey Association. The report shall be submitted to Council for approval at the completion of the filling works and prior to the issue of any Occupation Certificate.

Conditions Relating to Works in the Road Reserve

These conditions are imposed to ensure that adequate road works are provided to minimise the adverse effect of traffic generated by the development.

24. Road Opening Approval Required

No work whatsoever shall be carried out within the Public Road Reserve unless a "Road Opening Permit" under the Roads Act, 1993 (NSW) has been issued by either Council or the Roads and Traffic Authority for every opening of the public road reserve.

Note: An application fee is payable for this application.

25. Nomination of Engineering Works Supervisor

Prior to the issue of a Construction Certificate the applicant shall nominate an appropriately accredited certifier to supervise all public area civil and drainage works to ensure that they are constructed in compliance with Council's current "Specification for Civil Works Associated with Subdivisions and Developments".

The engineer shall:

- a) Provide an acceptance in writing to supervise sufficient of the works to ensure compliance with:
 - i) all relevant statutory requirements;
 - ii) all relevant conditions of development consent;
 - iii) construction requirements detailed in the above Specification; and
 - iv) the requirements of all legislation relating to environmental protection;
- b) On completion of the works certify that the works have been constructed in compliance with the approved plans, specifications and conditions of approval; and
- c) Certify that the Works As Executed plans are a true and correct record of what has been built.

Public Utility Authorities Requirements

These conditions are imposed to avoid problems in servicing the development and reduce adverse impacts on the lot layout or the design of buildings or associated facilities.

26. Public Utilities - Subdivision

Arrangements shall be made with Ausgrid, Telstra, cable television network providers, and other telecommunication providers, (as applicable), and other public utilities in relation to:

- a) The provision of underground low voltage electricity conduits and services, cable television conduits and services and telecommunication conduits and services within the site to service the Amenities Building and/or other facilities within the site.
- b) The method of connection of the property to the Ausgrid supply, ie either underground connection or by overhead supply.
- c) The need for the provision of a kiosk-type substation.

27. Sydney Water - Notice of Requirements

Prior to the issue of a Construction Certificate or Subdivision Certificate the applicant shall obtain a Notice of Requirements under the Sydney Water Act 1994, Part 6 Division 9 from Sydney Water and submit the Notice to the Council.

28. Public Utility Authorities

Arrangements shall be made to the satisfaction of all Utility Authorities including cable television and telecommunication network providers in respect to the services supplied to the development by those authorities. The necessity to provide or adjust conduits/ services within the road and footway areas shall be at full cost to the applicant.

29. Drainage Design - General

The drainage for this development proposal shall be designed in accordance with the Institution of Engineers' publication "Australian Rainfall and Runoff" (1987), Council's "Urban Drainage Design" Manual together with Council's "Stormwater Management Policy and Guidelines" and "On-Site Stormwater Detention Policy and Technical Specification".

The design shall also take into account the specific requirements of any Development Control Plan, Catchment Management Plan or Stormwater Management Plan relevant to the site together with sea level rise to 2100 and predicted increases in rainfall intensity.

A Compliance Certificate issued by an appropriately accredited person to the effect that these design requirements have been met shall accompany the Construction Certificate.

30. Drainage Design - Detailed Requirements

A detailed drainage design shall be prepared in accordance with Sutherland Development Control Plan 2006 (Chapter 8 - Ecologically 'Sustainable Development'; Section 6 - 'Stormwater Management'), "Australian Rainfall and Runoff (1987)", Council's Drainage Design Manual and Council's "On-site Stormwater Detention

Policy and Technical Specification”.

The design shall include:

- a) A detailed drainage design supported by a catchment area plan and drainage calculations (including a Hydraulic Grade Line Analysis where applicable). The drainage design shall take into account future sea level rise to 2100 together with the associated projected increase in rainfall intensity.
- b) A layout of the drainage system including the infiltration basins and grass and bioretention swales, showing existing and proposed pipe sizes, type, class, grades, lengths, invert levels, finished surface levels and location of all pipes with levels reduced to Australian Height Datum. Impacts on existing trees must be indicated on the plan.
- c) A longitudinal section of any pipeline constructed within the road reserve including existing natural surface levels, design surface levels, design invert levels of the proposed pipeline and the location, size and reduced level of all services to AHD where those services cross the proposed drainage line.
- d) The design floor level of the amenities building shall be set at a level of 500mm above the 1 in 100 year storm event and estimated Sea Level Rise due to climate change when combined with a high tide in Quibray Bay.

A Compliance Certificate issued by an appropriately accredited person to the effect that these design requirements have been met shall accompany the Construction Certificate.

31. Drainage Design (Stormwater Disposal)

To ensure the efficient disposal of stormwater and that no problem is caused to surrounding premises, the stormwater from the development shall be discharged to:

- a) The Infiltration Basins. The design of the Infiltration Basins shall take into account predicted sea level rise, increased rainfall intensity and they shall be designed to cater for and contain the 1% AEP event.

32. Stormwater Treatment

An appropriate stormwater treatment measure, ie Infiltration Basin grassed swales and bioswales, selected from the Environment Protection Authority's document "Managing Urban Stormwater - Treatment Techniques, November 1997", shall be provided as part of the permanent site stormwater (water quality) management system. Full details of this system including any proposed basin plantings and access for maintenance shall form part of the Construction Certificate.

33. Parking Areas and Access

All vehicular access, parking and manoeuvrability including any loading or off-road set-down or pick-up areas for the proposed development shall be designed and constructed to comply with AS2890.1 - 2004, (B85 vehicle), and AS2890.2-2002, (Large Rigid Vehicle - approximates to Tourist Coaches).

The following specific requirements shall be incorporated into the constructed works:

- a) All "one way" traffic aisles in the car parking area shall be clearly identified by signposting and pavement marking.
- b) All ingress and egress points shall be clearly signposted as such.
- c) All Handicapped persons spaces and Emergency Vehicle Spaces and emergency vehicle access to the playing fields shall be sign posted and linemarked in accordance with the applicable Standards.

34. Garbage, Recycling and Green-waste Storage Area

To ensure proper storage of waste from the Amenities Buildings enclosed garbage and recycling storage areas shall be provided. This facility shall be designed and positioned to accommodate (and if necessary provide collection access to) waste and recycling bins to Council's requirements and in order to minimise noise and odour, it shall be provided with walls, roof and door access. Within this area a smooth impervious floor shall be provided that is graded to a floor waste and a tap and hose provided to facilitate regular cleaning of the bins. All waste water shall be discharged to the sewer in accordance with the requirements of Sydney Water.

The required number and type of waste and recycling material containers shall be provided at the full cost of the developer.

Details of the garbage, recycling and any greenwaste storage area shall accompany the Construction Certificate.

The works included above shall be completed prior to the issue of an Occupation Certificate or Subdivision Certificate, (whichever is the earlier).

35. Designated Waste Storage and Recycling Bins

Designated waste and recycling bins shall be provided adjacent to the playing fields.

The number, design and location of these facilities shall be determined in consultation with Council's Parks and Waterways Section and details of these facilities shall be submitted with the Construction Certificate.

36. External Lighting - (Amenity)

Any lighting on the site shall be designed and operated so as not to cause a nuisance nor adverse impact on the surrounding area, to motorists on nearby roads or to any aircraft flightpath. All external lights shall be designed in accordance with Australian Standard AS4282 - Control of the Obtrusive Effects of Outdoor Lighting. Certification shall be provided by a suitably qualified and accredited person prior to the issue of any Construction Certificate that all conditions with regard to field lighting required by the Civil Aviation Safety Authority, Air Services Australia or any other Authority responsible for or having an input to aviation safety have been met regarding the potential effects of the field lighting on any aircraft flightpath.

Subdivision Conditions

These subdivision conditions are imposed to ensure that adequate engineering works are provided to minimise the impact of the development on the environment and the locality.

37. Engineering Work

All engineering work in relation to the proposed development including roadworks shall be designed and constructed in accordance with the requirements of Council's adopted "Specification for Civil Works Associated with Subdivisions and Developments".

38. Subdivision Design

The subdivision layout shall be in accordance with Council's Development Consent DA11/0665 and any applicable conditions amending the application.

39. Submission of Fire Safety Schedule

If any of the buildings proposed meet the relevant criteria, a Fire Safety Schedule shall be issued by an appropriately qualified person and provided to Council as part of the Construction Certificate in accordance with the *Environmental Planning and Assessment Regulation 2000*. This schedule shall distinguish between current, proposed and required fire safety measures, with the minimum standard of performance being indicated for each fire safety measure. The Fire Safety Schedule shall identify each fire safety measure that is a Critical Fire Safety Measures and the intervals at which supplementary fire safety statements shall be given to the Council in respect of each such measure.

MASTERPLAN PRE-COMMENCEMENT CONDITIONS

The following conditions are imposed to ensure that all pre-commencement matters are attended to before work is commenced.

40. Pre-Commencement - Notification Requirements

No works in connection with this development consent shall be commenced until:

- a) A Construction Certificate has been issued and detailed plans and specifications have been endorsed and lodged with Council;
- b) A Principal Certifying Authority has been appointed. Council shall be notified of this appointment along with details of the Principal Certifying Authority, and their written acceptance of the appointment, NB Council shall be appointed as Principal certifying Authority for any works that shall relate to any future subdivision; and
- c) Notice of commencement has been provided to Council 48 hours prior to commencement of construction work on the approved development.

41. Pre-commencement Inspection

The pre-commencement meeting is to be convened by the Applicant on-site a minimum 5 days prior to any construction activity other than the installation of silt and erosion control barriers and between the hours of 8.00 am and 4.30 pm Monday to Friday. Prior to this meeting the relevant sections of the Environmental Site Management Plan (ESMP) must be implemented. The meeting must be attended by a representative of Council's Civil Assets Branch, the PCA, the builder/site manager

of the building/civil construction company and where necessary the supervising engineer. The attendance of the owner is required when it is intended to use more than one builder/principal contractor throughout the course of construction.

The purpose of the meeting is to:

- i) Inspect the implementation of relevant sections of the ESMP such as safe passage for pedestrians, the installation of sediment and erosion controls, hoardings, Work and Hoarded Zones;
- ii) Check the installation and adequacy of all traffic management devices;
- iii) Discuss/explain any sections of the development consent that may require clarification or elaboration;
- iv) Confirm that a Construction Certificate has been issued where necessary and all Council fees paid;
- v) Vet the compliance of any special/specific conditions of consent;
- vi) Confirm that the supervising engineer has a copy of Council's Specification for Civil Works Associated with Subdivisions and Developments – January 1996; and,
- vii) Confirm that the builder/site manager/principal contractor has a copy of the Sutherland Shire Development Control Plan 2006 and Environmental Specification 2007.

42. Signs to be Erected on Development Sites

A rigid and durable sign shall be erected prior to the commencement of work and maintained in a prominent position on any work site on which building work, subdivision work or demolition work is being carried out. The responsibility for this to occur is that of the principal contractor.

The signage, which must be able to be easily read by anyone in any public road or other public place adjacent to the site, must:

- a) show the name, address and telephone number of the Principal Certifying Authority/ies for the works, (including any subdivision works), and
- b) show the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
- c) state that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

MASTERPLAN CONSTRUCTION CONDITIONS

These conditions are imposed to ensure the development does not unreasonably impact on the amenity of the locality during the construction or demolition phase.

43. Environmental Site Management DCP

All construction work approved by this development consent shall be undertaken in

accordance with the objectives and controls in Part 3 of Chapter 8 of Sutherland Shire Development Control Plan 2006 and the Sutherland Shire Environmental Specification 2007 - Environmental Site Management.

44. Permitted Hours for Building and Construction Work

Due to the remote location of the site, construction work is permitted 24 hours, 7 days per week with the following limitations:

- a) provided reasonable measures are taken to protect the amenity of properties within the vicinity of the site.
- b) any restriction that Council advises the applicant of in writing with 7 days notice, that, in Council's opinion, is necessary to manage the impacts of construction on competitors and spectators of sporting events on the site or in the vicinity.

45. Toilet Facilities

Toilet facilities shall to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided:

- a) shall be a standard flushing toilet, and
- b) shall be connected:
 - i) to a public sewer, or
 - ii) if connection to a public sewer is not practicable, to an accredited sewage management facility approved by the Council, or
 - iii) if connection to a public sewer or an accredited sewage management facility is not practicable, to some other sewage management facility approved by the Council.

The provision of toilet facilities in accordance with this clause shall be completed before any other work is commenced.

46. Excavations and Backfilling

- a) All earthworks including excavations and backfilling associated with the development shall be executed safely and in accordance with appropriate professional standards.
- b) All excavations associated with the development must be properly guarded and protected to prevent them from being dangerous to life or property.
- c) All canopy, trunk and root system of any trees to be retained on site and neighbouring properties shall be protected from damage during excavation.

47. Imported 'Waste Derived' Fill Material

In order to ensure that imported fill is of an acceptable standard for environmental protection purposes:

- a) The only waste derived fill material that may be received at the development site shall be:
 - i) Virgin excavated natural material (within the meaning of the Protection of

- the Environment Operations Act 1997).
- ii) Any other waste-derived material the subject of a resource recovery exemption under cl.51A of the Protection of the Environment Operations (Waste) Regulation 2005 that is permitted to be used as fill material.
- b) Any waste-derived material the subject of a resource recovery exemption received at the development site shall be accompanied by documentation as to the material's compliance with the exemption conditions and shall be provided to the Principal Certifying Authority on request.

48. Retaining Walls and Drainage

If the soil conditions associated with the development proposal require it, retaining walls or other approved methods of preventing movement of the soil shall be provided with adequate provision made for drainage.

49. Protection of Public Places

To protect public safety and convenience during the course of constructing the works covered by this consent, the following matters shall be complied with:

- a) If the work involved:
 - i) is likely to cause pedestrian or vehicular traffic in a public place to be obstructed, inconvenienced, or rendered unsafe; or
 - ii) construction involves the enclosure of a public place,
A hoarding or fence shall be erected between the work site and the public place.
- b) The work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place.

Any such hoarding, fence or awning shall be removed and any damage to any public place reinstated to Council's satisfaction when the work has been completed.

50. Noise Control during Construction and Demolition

To minimise the impact on the surrounding environment:

- a) For construction and demolition periods of four (4) weeks or less, the LAeq sound pressure level measured over a period of 15 minutes when the construction or demolition site is in operation, shall not exceed the ambient background level (LA90 15min) by more than 20dB(A) when measured at the nearest affected premises.
- b) For construction and demolition periods greater than four (4) weeks, the LAeq sound pressure level measured over a period of 15 minutes when the construction or demolition site is in operation, shall not exceed the ambient background level (LA90 15min) by more than 10dB(A) when measured at the nearest affected premises.

51. Environment Protection and Management

The environment protection and management measures described in the required Environmental Site Management Plan (including sediment controls and tree protection) shall be installed or implemented prior to commencement of any site works and continuously maintained during the period of construction or demolition.

These measures shall generally be in accordance with the requirements of Part 3 of Chapter 8 of Sutherland Shire Development Control Plan 2006 and the Sutherland Shire Environmental Specification 2007 - Environmental Site Management.

52. Run-off and Erosion Controls

Run-off and erosion controls shall be installed prior to commencement of any site works and shall be continuously maintained during the period of construction or demolition. These control measures shall generally be in accordance with the requirements of Part 3 of Chapter 8 of Sutherland Shire Development Control Plan 2006 and the Sutherland Shire Environmental Specification 2007 - Environmental Site Management and shall specifically address the following matters:

- a) diversion of uncontaminated runoff around cleared or disturbed areas;
- b) a silt fence or other device to prevent sediment and other debris escaping from the cleared or disturbed areas into drainage systems or waterways;
- c) controls to prevent tracking of sediment by vehicles onto adjoining roadways and public areas, a shaker pad and wheel wash facility shall be installed for this purpose; and
- d) disturbed areas shall be stabilised either temporarily or permanently by the use of turf, mulch, paving or other methods approved by the Council.

53. Construction of Public Frontage Works

The following road frontage works shall be constructed in accordance with the requirements of Council's adopted "Specification for Civil Works Associated with Subdivisions and Developments":

- (a) A temporary concrete footpath crossing for construction vehicle access if required.
- (b) Road pavement construction as detailed on Council's design plan.
- (c) Stormwater drainage works.
- (d) The full construction of traffic facilities, including intersections within Captain Cook Drive providing access to the playing fields and at Captain Cook Drive at the Lindum Road intersection together with any associated traffic management devices, line marking and signposting. The design of these intersections shall incorporate the swept manoeuvring area of a 25.0m B-Double vehicle.
- (e) Construction of kerb and gutter and/or an edge beam across the frontage of the site where required to support the road pavement (e.g. adjacent to acceleration lanes).
- (f) Construction of a grass swale across the full frontage of the site
- (g) Regrading, topsoiling and turfing of the footpath area to final design levels across the full frontage of the site and across adjacent properties where existing levels are altered, to all disturbed areas with the regrading and turfing to match the level and location of the proposed grassed drainage swale.
- (h) Erosion and sediment controls including a shaker pad and wheel wash-down facilities with these facilities to remain in place for the entire construction period.
- (i) Adjustment to, provision of additional conduits and services for or amplification of public utility services, cable television, security camera and telecommunications infrastructure where required both external and internal to the site and to also provide for such services to the amenities buildings.

- (j) Landscaping of the public domain in association with the landscaping of the development site in accordance with the approved plans.
- (k) Construction of traffic facilities including those required to provide access during the course of construction.
- (l) Provision of linemarking and signposting other than at the proposed intersections as detailed on the design plan.

Permission shall be obtained for the carrying out of the proposed works, under the Roads Act, 1993 prior to the commencement of works or the issue of a Construction Certificate.

54. Stockpiling of materials during construction

Topsoil, excavated material, construction and landscaping supplies and on site debris shall be stockpiled within the erosion containment boundary and shall not encroach beyond the boundaries of the property or the drip-line of any tree marked for retention. For further information, refer to Part 3 of Chapter 8 of Sutherland Shire Development Control Plan 2006 and the Sutherland Shire Environmental Specification 2007 - Environmental Site Management.

55. Spoil deposited on public way (roads or reserves)

Any spoil deposited on public roads during cartage of materials from or to the site shall be removed immediately to the satisfaction of Council. If Council determines that excessive depositing of spoil onto the public way is taking place then the cartage of materials to and/or from the site shall cease if so directed by Council.

56. Certification Requirement - Prior to pouring of concrete

Certificate shall be provided from a registered surveyor prior to the pouring of the initial / lowest floor slab of the amenities building, verifying the location and level of the steel / formwork is such to ensure that the concrete when poured will comply with the approved floor level.

57. Disposal of Site Soils

58. Any soils excavated from the subject site are to be classified under the NSW DECC Waste Classification Guidelines (2009). Testing is required prior to off site disposal. All waste materials shall be removed to appropriately licensed waste facilities by a suitably qualified contractor in accordance with NSW DECC Waste Classification Guidelines (2009).

Note: Attention is drawn to Part 4 of the NSW DECC Waste Classification Guidelines (2009) which makes particular reference to the management and disposal of Acid & Potential Acid Sulfate Soils.

Landscaping Requirements

These conditions are imposed to ensure the retention and enhancement of the existing landscaping.

59. Planting of site boundaries

Tree and shrub screen planting shall be provided along the site boundaries in accordance with the landscape plan to enhance the development prior to the issue of

any Occupation Certificate. This planting shall be of a native type that will achieve a minimum height of 4m at maturity together with understorey species. The plants selected shall be in accordance with the detailed landscape plan. The site boundary landscaping shall not apply to those areas where passive site surveillance is desirable.

60. Irrigation system

The playing fields, the athlete warm-up areas and overflow car park areas shall be provided with a water efficient irrigation system to enable effective landscape maintenance. Details of this system shall be provided in the landscape plan which shall accompany the Construction Certificate.

61. Landscape treatment of Infiltration Basin and Bioswales

The stormwater infiltration basin and bioretention swales shall be densely planted with suitable species as per Sutherland Shire Council Environmental Specification Landscape (2007), Part 2, and appropriately mulched to augment the landscape character of the site and the approved landscape plan. The mulch shall be stabilised with a biodegradable material. The planting shall not materially reduce the volume of the stormwater infiltration basin and bioswales as required by this development.

62. New Statutory Fire Safety Measures

Where required, Statutory Fire Safety Measures are required and shall be provided and fully maintained in accordance with the nominated standard and inspected annually with the issue of Annual Fire Safety Statements.

63. Amenities Buildings Rainwater Harvesting and Use

Tank Installation

The tank and support structure shall be placed on a suitable foundation in accordance with the manufacturer's or engineer's details. It must not rest (in full or part) on the footings of any building or structure or on a retaining wall without being specifically designed for.

The tank shall not be installed over or immediately adjacent to a stormwater drainage easement, water or sewer main or associated infrastructure without the consent of the appropriate authority.

The tank may be free standing, partially or wholly below ground level, incorporated into the building eaves or fixed to a wall.

The tank installation and all plumbing works shall be carried out by a plumber licensed with the NSW Department of Fair Trading.

Plumbing Connections

Pipes that may be in contact with rainwater for extended period are to comply with AS/NZS4020. In general, this does not apply to guttering or downpipes that deliver

rainwater directly by gravity into the top of the rainwater tanks because contact with the water is transient.

Underground pipework delivering water to the tank, or between tanks, or from tanks to houses (for reuse in toilets and laundries) shall comply with AS/NZS4020.

Polyethylene pipes used for such pressure applications shall comply with AS/NZS4130.

The installation of tanks and associated pipework infrastructure shall comply with the following standards:

1. AS/NZS2179 – Specifications for rainwater goods, accessories and fasteners.
2. AS2180 – Metal rainwater goods – selection and installation.
3. AS/NZS3500 – National Plumbing and Drainage Code.
4. AS/NZS4130 – Polyethylene (PE) pipes for pressure applications.

Potable Water Back-up

Potable water from the back-up system shall be introduced directly to the rainwater tank/s and not to the distribution system. Potable water is to be supplied via a dry break connection.

For the developments where a single rainwater tank is used, this tank shall be considered as the Potable Water Make-up Tank. Should a development include more than one (1) rainwater tank, a single rainwater tank shall be nominated as the Potable Water Make-up Tank.

The Potable Water Make-up Tank shall be installed such that potable water is supplied when the storage level is reduced to between 5% and 10% of installed rainwater storage capacity.

At this level, an approved mechanical float device or electrical float switch is to be used to make up potable water.

Overflow

Intense or prolonged rainfall will exceed the capacity of the rainwater tank therefore a (gravity) overflow system shall be provided to a stormwater drainage pipeline.

MASTERPLAN POST-CONSTRUCTION CONDITIONS

These conditions are imposed to ensure all works are completed in accordance with the Development Consent prior to either the issue of an Occupation Certificate, a Subdivision Certificate or habitation / occupation of the development.

64. Section 73 Compliance Certificate

A Compliance Certificate under s73 of the Sydney Water Act, 1994, shall be submitted to Council by the PCA prior to the issue of any Occupation Certificate or before the issue of any Subdivision Certificate for each Stage of the Masterplan

development. Sydney Water may require the construction of works and/or the payment of developer charges.

Advice from Sydney Water:

An application must be made through an authorised Water Servicing Coordinator.

For details see the Sydney Water web site at

www.sydneywater.com.au/customer/urban/index or by telephone 13 20 92.

Following application a "Notice of Requirements" will be forwarded detailing water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water / sewer extensions can be time consuming and may impact on other services as well as building, driveway or landscaping design.

65. Works As Executed Information

Certification shall be provided from a registered surveyor for each Stage of the Masterplan development to the effect that:

- a) All civil engineering works required by this development consent have been carried out in accordance with the terms of the development consent and the approved engineering drawings with regard to location and level.
- b) All pipes, pits and detention facilities lay within their relevant existing or proposed easements as required.
- c) All future public facilities required by conditions of this development consent have been provided.

66. Works As Executed Drawings

Certification shall be provided from the Supervising Engineer acting as an Accredited Certifier for each Stage of the Masterplan development, to the effect that:

- a) All civil engineering, landscape watering and stormwater works associated with development have been carried out in accordance with the terms of the development consent, the approved engineering drawings and in the case of public works, Council's "Specifications for Civil Works associated with Subdivisions and Developments".
- b) The construction of the drainage and watering systems for the proposed development has been carried out generally in accordance with the requirements of the approved stormwater drainage and landscape plans, Council's stormwater management policy and guidelines and that all assumptions made during the design remain valid. Works-as-Executed drawings certified in the above manner and containing all relevant information, including the location of the watering system pipelines and sprinklers, and other information as required by Council's "Specification for Civil Works Associated with Subdivisions and Developments" shall accompany the Subdivision Certificate application or Occupation Certificate.

67. Completion of Work on Public Land

All work on public land required or proposed as part of this consent shall be completed in accordance with the requirements and time frames specified in the approvals granted by Council for each Stage of the Masterplan development for the

work under the Local Government Act 1993 or the Roads Act 1993.

No work shall be undertaken within the road reserve or on public land without approval from Council.

68. Lot Consolidation

Following the completion of the Stage 1B works, all lots comprising that stage shall be consolidated and a new lot shall be created over the area of Fields 2, 3 and their associated amenities building.

69. Provision of signs

Signposting shall be provided to detail the location, name and any relevant Regulations and/or Restrictions applicable to the playing fields, associated Amenities Buildings, carparking areas, walking tracks and overflow parking/warm-up/training fields within each stage of the Masterplan development.

Need for Certification

To ensure that all works are completed in accordance with the Development Consent, certification from an Accredited Certifier shall accompany the Occupation Certificate, to the effect that the following works have been completed.

70. Set out of Building

Certificate from a Registered Surveyor certifying that the Amenities Building has been set-out in relation to location and levels, in accordance with the requirements of the development consent.

71. General Compliance

Certification shall be submitted from the Principal Certifying Authority certifying that all works have been completed and comply with the approved plans, conditions and specifications.

72. Works in Roadway

A Compliance Certificate from an Accredited Certifier certifying that all works undertaken in the road reserves of Captain Cook Drive and Lindum Road have been completed in accordance with the conditions of the Road Opening Approval, the approved drawings and any applicable conditions of consent.

73. Green and Golden Bell Frog Pond Certification

Certification shall be provided by the Independent Green and Golden Bell Frog Expert that all matters referred to in the Green and Golden Bell Frog Management Plan and the approved Construction Certificate plans have been undertaken to his/her satisfaction.

74. Energy Efficiency

If applicable, certification shall be provided by an NatHERs accredited certifier verifying that the development has attained the energy efficiency rating requirements

specified in this development consent and detailing the type and efficiency rating of any energy efficiency devices installed in the development.

75. Completion of Landscaping

Certification shall be provided from a suitably qualified and experienced Landscape Designer or Landscape Architect within three months after the issue of the Final Occupation Certificate for the development or the Subdivision certificate, (whichever is the earlier). This Certification shall verify that the landscape works have been completed to the stage of practical completion in accordance with the approved detailed landscape plan and relevant conditions of this consent.

Note: A Landscape Designer is a person eligible for membership of the Australian Institute of Landscape Designers and Managers and a Landscape Architect is a person eligible for membership of the Australian Institute of Landscape Architects as a Registered Landscape Architect.

76. Completion of Vegetation Management

Certification shall be provided from a suitably qualified and experienced Bush Regenerator / Horticulturalist within three months after the issue of the Final Occupation Certificate for the development or the Subdivision certificate, (whichever is the earlier). This Certification shall verify that the establishment phase of the vegetation management works have been completed in accordance with the approved Vegetation Management Plan (VMP) and relevant conditions of this consent.

Note: A Bush Regenerator is a person eligible for membership of the Australian Association of Bush Regenerators and a Horticulturalist is a person eligible for membership of the Australian Institute of Horticulture.

77. Tree Preservation

Certification shall be provided from a suitably qualified and experienced Arborist within three months after the issue of the Final Occupation Certificate for the development or the Subdivision certificate, (whichever is the earlier). This Certification shall verify that tree preservation (including fencing) has been completed in accordance with the approved plans and relevant conditions of this consent.

Note: An Arborist is a person with current membership of the National Arborists Association of Australia at a grade of General Member, Affiliate Member or Life Member or alternatively a person who has obtained a TAFE Certificate in Horticulture (Arboriculture) Level 2 or higher.

78. Stormwater Treatment

Certification shall be provided from an Accredited Certifier prior to the issue of an occupation certificate for the development or the issue of a Subdivision certificate, (whichever is the earlier), verifying that the stormwater treatment measures, (Bioswale/Infiltration Basin/Grassed Swale), has been implemented in accordance with the requirements of this condition and the approved plans.

79. Disabled Access Certification.

Certification shall be provided by a person suitably accredited by the Association of

Consultants in Access Australia, verifying that the development has been constructed in accordance with the requirements of AS1428.1 and AS1428.2 - Design for Access and Mobility and in accordance with the report and checklist submitted with the Construction Certificate.

80. Verification of IDA Requirements

Verification shall be provided by a suitably qualified person pursuant to s.91 of the EP&A Act 1979, stating that all IDA requirements of the Approval Authority(s) have been maintained throughout the construction of the development. This shall be provided prior to the issue of the final Occupation Certificate for the Amenities Building.

81. Certification – Acid Sulfate Soils

A suitably qualified environmental scientist shall certify in writing to Council that the management of any acid sulfate soil was undertaken in accordance with the conditions of this development consent.

82. Final site Inspection

Prior to the issue of the Subdivision or any Occupation Certificate, a final site inspection shall be arranged by the applicant, and shall be undertaken by the applicant's Supervising Engineer and Council's Civil Assets Engineer and Principal Certifying Authority. The purpose of the inspection is to ensure that notwithstanding the submission of any certificates required by the development consent, all impacts within the public area caused by the development have been satisfactorily addressed.

Note: An inspection fee shall be paid to Council. Please refer to Sutherland Shire Council's Adopted Schedule of Fees and Charges.

Subdivision Plan Requirements

The following conditions have been imposed in relation to the preparation and release of the Linen Plan/s of Subdivision.

83. Linen Plan of Subdivision to conform with Development Consent

The Linen Plan of Subdivision shall conform with the approved plans detailed as part of Council's Development Consent DA11/0665, any modifications required by the design of the intersections at the Captain Cook Drive/Lindum Road intersection, at the other proposed intersections on Captain Cook Drive and all relevant conditions of consent.

84. Endorsement of Linen Plans of Subdivision by Council

To facilitate the issue of the Plan of Subdivision, following completion of the requirements detailed in the conditions of this Development Consent and the issue of the Subdivision Certificate by Council, an Original and eight (8) paper copies of the Plan of Subdivision shall be submitted to Council together with the Instrument (in duplicate) under Section 88B of the Conveyancing Act, where required for ultimate lodgement at the Land Titles Office.

MASTERPLAN OPERATIONAL CONDITIONS

These conditions are imposed to ensure that the use or operation of the development does not adversely impact on the amenity of the neighbourhood and the environment.

85. External Lighting

All external lights shall be operated and maintained in accordance with the Australian Standard AS4282 - Control of the Obtrusive Effects of Outdoor Lighting so as not to cause a nuisance or adverse impact on the amenity of residents of the surrounding area, to motorists on nearby roads and to any aircraft flight path.

86. Green and Golden Bell Frogs

Continuous monitoring of the Green and Golden Bell Frog habitat ponds shall be undertaken for a period of two years in accordance with the requirements of the Green and Golden Bell Frog Management Plan and any recommendations emanating from this monitoring programme shall be implemented immediately.

GENERAL CONDITIONS STAGE 1A DEVELOPMENT

These general conditions are imposed to ensure that the development is carried out in accordance with the development consent, having regard to the environmental circumstances of the site.

Job Number G887EG Drawing No.P7-1 Issue C dated 28/9/2011-2 Issue H dated 29/9/2011, P7-3 Issue G dated 29/9/2011, P7-4 Issue D dated 29/9/2011, P7-5 Issue D dated 29/9/2011, P7-6 Issue C dated 16/6/2011, P7-7 Issue D dated 29/9/2011, P7-8 Issue B dated 29/9/2011, P7-9 Issue B dated 29/9/2011, P7-10 Issue B dated 29/9/2011 prepared by Insites - (P7, 8, 9 and 10 being Sutherland Shire Consulting Services Drawing No.106239), Surveyor's Reference 809140/3 Proposed Plan of Subdivision Stage 1A Issue 2 dated 11/7/2011 prepared by Cooper and Richards Surveyors, Surveyor's Reference 809140/3

Note 1:

Nothing in this development consent whatsoever approves or authorises the commencement, erection or construction of any building, construction or subdivision works.

Note 2:

Prior to the commencement of any building, construction, or subdivision work being carried out a 'Construction Certificate' shall be obtained from Council or an Accredited Certifier.

Note 3:

Should the development, the subject of this consent, involve the subdivision of land and the issue of a subdivision certificate as defined under section 109c(1)(9) of the Environmental Planning and Assessment Act 1979, please note that Sutherland Shire Council must be appointed as the Principal Certifying Authority for all subdivision works.

Note 4:

Prior to any work being carried out relating to the development the subject of the consent, the person implementing the consent shall provide Council with:

- a) Notification of the appointment of a Principal Certifying Authority and a letter of acceptance from the PCA.
- b) Notification of the commencement of building and/or subdivision works with a minimum of 2 days notice of such commencement.

Note 5:

Should the development have a BASIX Certificate, your attention is drawn to the commitments made in the BASIX Certificate which forms part of the development consent and the necessity to comply with these as required under the Environmental Planning and Assessment Act 1979.

87. Fencing

The Stage 1A development shall be protected in its entirety by a 1.8m high man proof fence finished in recessive colours to match that to be constructed around the remaining stages within the Masterplan development and compliant with the Voluntary Planning Agreement. A double width security gate shall be provided at the intersection of Road No.7 with Lindum Road for vehicular traffic and a separate lockable pedestrian/cyclist gate and other safety measures for pedestrians and cyclists shall be provided in the eastern Stage 1A fencing at Lindum Road and also in the western Stage 1A boundary fence at proposed Lot 5.

MATTERS RELATING TO THE ISSUE OF STAGE1A CONSTRUCTION CERTIFICATES

The following conditions involve either modification to the development proposal or further investigation prior to the issue of a Construction Certificate, so as to ensure that there will be no adverse impact on the environment or adjoining development. This information shall be submitted with the Construction Certificate.

Design Conditions

These design conditions are imposed to ensure the development, when constructed, meets appropriate standards for public safety and convenience.

- a) Provision shall be made as part of the design of the car park areas in Stage 1A for three Tourist Coaches on hardstand pavement due to the remote nature of the facilities together with the limited public transport available.
- b) The perimeter landscaping of the Stage 1A Skate Park shall be sufficiently dense in medium and high level plantings to prevent visibility of the skate park from Captain Cook Drive, except where passive surveillance is required.

88. Detailed Landscape Plan

A Detailed Landscape Plan for Stage 1A of the development shall be prepared by an experienced Landscape Designer (a person eligible for membership of the Australian Institute of Landscape Designers and Managers) or Landscape Architect (a person eligible for membership of the Australian Institute of Landscape Architects as a Registered Landscape Architect).

The plan shall accord with Section 6.7 of Councils Landscape Development Control Plan, which sets out the requirements for a Detailed Landscape Plan, and the relevant conditions of this consent.

The Detailed Landscape Plan shall be based on the Concept Landscape Plan Drawing Nos. L01/04 and L02/04 both Issue "D" prepared by JMD Design/Insites dated 5/07/2011 and shall address the following:

- a) The playing fields and other open space areas shall be provided with a water efficient irrigation system in accordance with Sydney Water requirements and relevant Australian Standards. The irrigation system shall also employ recycled water infrastructure and the location of all pipelines and sprinkler heads shall be detailed on the Works as Executed plans.
- b) All plantings with the exception of the turf for the playing fields and warm-up areas plus the overflow parking shall be endemic to the area and compliant with any other requirements of this Consent.

The Landscape Designer or Landscape Architect shall provide written certification to the Accredited Certifier that the Detailed Landscape Plan has been prepared having regard to the requirements of this consent. This certification and the Detailed Landscape Plan shall be submitted to the Accredited Certifier for approval prior to the issue of the Construction Certificate.

PRE-COMMENCEMENT CONDITIONS STAGE 1A DEVELOPMENT

The following conditions are imposed to ensure that all pre-commencement matters are attended to before work is commenced.

89. General Pre-Commencement Condition 1

Any Construction certificate issued in relation to this Consent relative to Stage 1A works shall incorporate and address the design of those works required by this consent and any ancillary works necessary to make the construction effective

CONSTRUCTION CONDITIONS STAGE 1A DEVELOPMENT

These conditions are imposed to ensure the development does not unreasonably impact on the amenity of the locality during the construction or demolition phase.

Landscaping Requirements

These conditions are imposed to ensure the retention and enhancement of the existing landscaping.

90. Street Planting

Street tree planting shall be provided abutting the road carriageways within Stage 1A and within the proposed car parking area fronting the subject site utilising canopy type species endemic to the area and as specified in the approved landscape plan. These trees shall be planted with staking and tying in a mulched and edged landscape area, in accordance with Figure 11 of Council's Landscape Development Control Plan, within three (3) months of completion of work on the site. The tree(s) shall be maintained until they reach a diameter of 100mm measured at 500mm above ground level.

Amenities Buildings Rainwater Harvesting and Use

91. Rainwater Tank Overflow

Intense or prolonged rainfall will exceed the capacity of the rainwater tank therefore a (gravity) overflow system shall be provided to the stormwater drainage pipeline located between the Amenities Building and Field No.1.



Office of Environment & Heritage

Your reference: DA11/0665
Our reference: DOC11/34663 and DOC11/35775
Contact: Liz Peterson 9995 6841

The General Manager
Sutherland Council
Locked Bag 17
SUTHERLAND NSW 1499

Attention: Brad Harris

Dear Mr Harris

I refer to your letter of the 27 July 2011 advising that the above proposal constitutes integrated development approval under section 91(1) of the *Environmental Planning and Assessment Act 1979* as approval is required pursuant to Section 90 of the *National Parks and Wildlife Act 1974*.

I also refer to your letter dated 26 July 2011 addressed to the Minister Administering the *National Parks and Wildlife Act* advising the Office of Environment and Heritage (OEH) of a proposed concept plan for 10 sporting fields, skate park and associated parking, lighting and amenities building, Green and Golden Bell Frog habitat and stormwater treatment facilities and a development application for the first stage sporting field at 288, 310-328, 330 and 434 Captain Cook Drive Kurnell.

The Planning and Aboriginal Heritage Section of the Metropolitan Branch in OEH provides the following coordinated comments in relation to matters relating to Aboriginal cultural heritage, threatened species and endangered ecological communities and as an adjoining land holder.

Aboriginal Cultural Heritage

OEH notes that a Statement of Environmental Effects, under cover of a Voluntary Planning Agreement, prepared by McKenzie Planning Services Pty Ltd (dated 11/7/2011) has been attached to your request for General Terms of Approval. The SEE includes a short section on Aboriginal heritage and notes that the assessment of Aboriginal heritage for the area, which will include test excavations, is yet to be undertaken. Therefore the presence, location and extent of Aboriginal objects across the subject land is yet to be established. The Kurnell Peninsula is an area rich in evidence of past Aboriginal occupation and it is anticipated that Aboriginal objects could occur across the entire subject land. Objects have also been recorded within the sand dunes below the levels of the more recent dunes systems, and sites have been recorded within the development area. There is also the potential for human burials to be present in the dunes.

OEH is aware that the proponent is in the process of applying for an AHIP to carry out the test excavations.

The assessment of Aboriginal heritage, including the results of the proposed test excavations needs to be completed before General Terms of Approval can be considered.

Kurnell Dune Forest Endangered Ecological Community

While it would have been preferable to have retained and rehabilitated the existing remnants of Kurnell Dune Forest within the Stage 1A and B works area rather than attempt to recreate the Endangered Ecological Community from scratch in areas where the substrate has been substantially altered by sand mining/filling, it is not clear from the documentation provided with the development application what

The Department of Environment, Climate Change and Water is now known as the Office of Environment and Heritage, Department of Premier and Cabinet

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methods will be used and how success will be measured. The proposed planting schedule in Appendix 3 simply provides a list of species to be used for landscaping and there is no indication that the works will be anything other than that (i.e. landscaping using locally native species). If the intention is to recreate Kurnell Dune Forest to offset the loss of the remnants on site, then it should be undertaken in a scientifically robust manner applying sound ecological principles as well as a rigorous monitoring regime to determine whether or not the desired outcomes have been achieved. If the intention is not to recreate Kurnell Dune Forest on site, then offsets should be sought elsewhere within Sutherland Shire to counter the loss of this Endangered Ecological Community at the Green Hills Parklands site.

Green and Golden Bell Frog

OEH has previously pointed out the significance of the area covered by the Master Plan and the Stage 1A Developers Works for the Key Population of Green and Golden Bell Frog on the Kurnell Peninsula. The key issues raised in our previous correspondence relate to:

- the implications of this new development proposal for the ongoing implementation of existing conservation management actions for Green and Golden Bell Frog on both the Australand and Kurnell Land Fill Company (Breen) sites which were either negotiated voluntarily (Breen lands) or as part of the industrial sub-division approval (Australand site) and the outcomes of these actions, which are currently unknown;
- the need for detailed information on specific pre-construction protective measures for Green and Golden Bell Frog, such as pre-clearance searches and frog-proof fencing, which should be undertaken prior to the commencement of any construction works;
- concern about the dual function of recreated Green and Golden Bell Frog habitat, which will also be used to treat stormwater, and the incompatibility of these two goals; and
- inadequate timeframes for the maintenance of recreated Green and Golden Bell Frog habitat and the lack of clear performance criteria to measure whether recreated Green and Golden Bell Frog habitat is functioning as intended.

The above points have not been sufficiently addressed in the current report.

Frog habitat ponds are proposed at 3 locations in Stages 1A and 1B and the report contends that the sporting fields will be conducive to movement of Green and Golden Bell Frog across the site. Appendix 8 briefly describes the design of the Green and Golden Bell Frog ponds, one of which is meant to be a permanent breeding pond, while the others are ephemeral and are meant to provide 'useful' habitat for the frogs. OEH is concerned that the ephemeral ponds will dry out and become non-functional for long periods during dry spells and that the permanent pond, which is dependent on groundwater levels, will also dry out in hot weather when evaporation levels are high. There are also issues relating to the water quality in these ponds since they will capture run-off from the surrounding sports fields (including any fertilisers/herbicides applied to the fields or nutrients in the treated effluent used to irrigate the fields) or they will rely on the quality of existing groundwater which may contain pollutants derived from past industrial uses at the site. OEH would prefer to see the water levels and water quality in these ponds actively managed via the use of a dedicated and clean water supply.

While the sporting fields may provide good feeding habitat, open areas such as this provide no cover against predators. In addition, floodlighting of the sporting fields will increase the risk of predation and is likely to influence how the frogs use the area. The application of herbicide on the playing fields will also impact any Green and Golden Bell Frog that use them. OEH considers the playing fields a risky environment for the frogs. Council needs to explain how they will manage these risks to support its claim that the sporting fields will function as foraging areas and movement corridors for Green and Golden Bell Frog. As stated in our earlier correspondence, OEH does not want to see this Green and Golden Bell Frog habitat suffer the same fate as previous attempts through lack of resources for ongoing maintenance and active management. OEH therefore recommends that a condition of consent include the preparation and implementation of a fully-funded Green and Golden Bell Frog Management Plan, including ongoing monitoring

and reporting requirements, to ensure that the Green and Golden Bell Frog habitat persists and is functional for the life of the Green Hills Parklands project.

Some additional issues which relate to the location of the Green Hills Parklands site adjacent to Towra Point Nature Reserve and which have not been addressed in any of the reports associated with the rezoning and sub-division:

Endangered Population of White-fronted Chat at Towra Point

As mentioned in OEH's response to development application DA11/0478, recent work by the Australian Museum shows that the Green Hills Parklands site is used for foraging by the endangered population of White-fronted Chats. This species is now all but extinct in the Sydney region, which makes this population very important. The birds roost in Towra Point Nature Reserve but require numerous alternative foraging resources over an area of several square kilometres. They feed on outbreaks of insects and change foraging locations frequently. To maximise the survival prospects of the population, it is essential that existing foraging sites outside of Towra Point Nature Reserve are maintained. The birds like open habitat and often forage on mown or managed grassland, so there is potential to maintain suitable habitat within the future development of the Green Hills Parklands site. However, disturbance (they are highly sensitive to humans/dogs) and the use of pesticides is likely to be an issue for the birds. OEH recommends that Council manage the Green Hills Parklands so that it can continue to be used for foraging by the Towra Point population of White-fronted Chats and suggests that Council develop a management regime for the area in consultation with museum researchers (Dr Richard Major) who have considerable knowledge of this species.

Pied Oystercatchers and migratory waders using Quibray Bay

Stages 1A and 1B of the Green Hills Parklands are directly opposite Quibray Bay which is an important foraging and roosting site for various endangered shorebirds, as well as migratory waders. Quibray Bay is part of the Towra Point Ramsar site which is recognised as a wetland of international importance for this reason. Light spill from the proposed lighting towers at Green Hills Parklands, which will be between 18 and 20m in height, may impact on the use of this area by these birds. OEH recommends that Council seek expert advice in relation to the potential impact of the lighting towers on the waders and shorebirds of Quibray Bay and that the type of lighting and its placement be selected to ensure that there is a minimal amount of light spill into the wetlands. OEH also recommends that the use of Quibray Bay by shorebirds and waders be monitored both before and after the installation of the light towers to determine whether it is impacting on the use of the Bay by the birds. If so, the lighting towers should be either further modified or removed.

Adjoining Park

The subject site adjoins Towra Point Nature Reserve. OEH has an interest in the proposal given its location adjacent to Towra Point Nature Reserve. OEH's main comment is to ensure that the development has no adverse effect in natural or cultural values of the nature reserve. Attached are the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (June 2010), provide advice on OEH's requirements which should be addressed by Council which are available at:

<http://www.environment.nsw.gov.au/resources/protectedareas/10509devadjdeccw.pdf>

If you would like to discuss any of the issues raised in this letter, please contact Liz Peterson on 9995 6841.

Yours sincerely

S. Harrison 22/08/11

SUSAN HARRISON
Manager Planning Unit
Environment Protection and Regulation Office of Environment and Heritage
Department of Premier and Cabinet

Comments From Council's Manager Environmental Science & Policy/Principal Environmental Scientist

"I have completed my review of the application documentation relating to the proposed Greenhills Parkland Development. I find that generally the development is acceptable and that adequate consideration has been given to the various environmental impacts potentially arising from the proposal. Many of the issues associated with the proposal have been dealt with to varying degrees in the design of the Masterplan and scope of works for the VPA and the rezoning application which dealt with the site the subject of this proposal in addition to the surrounding residential lands. The findings of these earlier designs and applications have informed the format of the current proposal.

Below I provide more detailed comment on specific environmental issues associated with the proposal.

VPA and Current Proposal

There are several variations between the current proposal and the scope of works agreed to in the VPA. Notable differences include the inclusion of two hockey fields, and additional amenities buildings. While there is provision within the VPA to amend the scope of works, this amended VPA should accompany the current application to ensure that the DA delivers on what it purports to deliver.

Stage 1A Works

Consideration needs to be given as to how the Stage 1 works outlined in the DA are to integrate with the future DA for the skate park on this site. Are the skate park works proposed to run concurrently with the construction of this stage or at a later time during the operational or usage stage?

The proposal states that the required finished level should be achieved by moving the existing site soil around the site, but if additional soils are required they will be imported in to the site. As this is the detailed design stage the quantities of soil on site, existing contours and proposed contours should be known. Accordingly if soils are to be imported onto the site these quantities should be known and quantified within the documentation.

The proposal notes that vegetation removed from the site in preparation for bulk earthworks will be mulched and reused on the site or buried. There is considerable weed material present on this site that would not be suitable for mulching and reuse. Under this proposal it would be buried on site. This may result in unacceptable impacts on playing field surfaces, roads and facilities as the organic material decomposes over time leading to settlement issues. It is preferable that this material be disposed of off-site. Alternatively this material may be buried within the general landscape areas outside the footprint of the playing fields, roads and amenities. This should be included as a condition of consent.

Noise Control

While the DA notes the noise issues associated with the proposal, including noise guidelines and ameliorative measures there is no overall conclusion that noise impacts will be acceptable. Having regard to the current use of the site, and its isolation from existing and future development noise is not expected to be a significant issue.

Sea Level Rise and Flooding

The playing fields, amenities and internal roads have been designed with adequate consideration to sea level rise and flooding. While the studies note some potential impacts to Captain Cook Drive during extreme weather events, Captain Cook Drive is already flooded at this stage and the proposed works are not anticipated to exacerbate the situation.

Aboriginal Heritage

Little information is provided in regards to the Aboriginal heritage items located in the vicinity of the Stage 1 works. It is likely that at least a portion of this midden is located outside the area proposed for the playing fields and within the area proposed for the infiltration basin and landscaping works along the Captain Cook Drive frontage. As such there should be adequate opportunity for sensitive design of these features to preserve this item of Aboriginal heritage rather than lose it to unsympathetic design. This should be included as a condition of consent.

General Landscaping

The choice of species for landscaping appears appropriate and consistent with other approvals in the area. They comprise a majority of appropriate indigenous species, with minor use of exotic feature plants such as the Norfolk Island Pines at the entry point. One species noted in the landscape palate is *Banksia aemula*, which does not generally occur south of Botany Bay. This species could be dropped from the landscape palate while retaining *Banksia serrata*.

Stormwater and Groundwater Management

Suitable arrangement will need to be made with the NSW Office of Water for the proposed stormwater management system, in accordance with CI 25 of SREP17. This should be included as a condition of consent prior to the issue of a CC.

The stormwater modelling notes compliance with the DCP requirements. Water quality should also be acceptable for ecological and amenity purposes. Also the assumptions included in the modelling appear valid and accurate. The design, sizing and siting of the various stormwater components appears appropriate.

Herbicide and Pesticide restrictions are appropriate and suitable for water quality and aquatic ecosystem protection.

Flora and Fauna

While there are several components of the Flora and Fauna study that I may not specifically agree with, I agree with the overall conclusions and recommendations of the report.

I broadly agree with the vegetation mapping and habitat descriptions of the site. The report notes the presence of Kurnell Dune Forest along the Captain Cook Drive frontage and considers it of low conservation significance. While I would consider it of low to medium significance, I agree what it is severely degraded (a situation that will continue as it is with the powerlines easement and will be continually trimmed, etc), and its loss is more than adequately compensated for in the future planting and rehabilitation of areas beyond the playing fields. A balance of Kurnell Dune Forest conserved, lost and replaced as part of this overall proposal at the rezoning phase found that overall approx 3.1ha of degraded KDF (of a total 9.5ha for the subject lands) will be recovered as part of this proposal, but 12.2ha will provided as compensation. This results in an overall increase of 100% for the site and surrounds.

Similarly the report notes in some sections that threatened species have not been recorded on the site, while in other sections notes that there are historical records of Green & Golden Bell Frog on the site. There is a long history of Green & Golden Bell Frog use of this site. Michelle Christie undertook her doctoral studies on the Green & Golden Bell Frog on this site predominantly throughout the 1990s. The ponds noted in the report in the stage 3 area were constructed specifically as habitat for the GGBF. Movement corridors were also created through the site at this time. With the completion of Michelle's study in the late 1990s and a change in management at the Kurnell Landfill, the ongoing management of these habitat areas ceased. Since that time there has been consistent degradation of these habitat features to the extent that the GGBF no longer use them on this site and as noted in the Flora and Fauna study have not been recorded on the site for some time (to my knowledge for at least the last 7 years). Accordingly I agree with the conclusions relating to the GGBF and find that the compensatory measures proposed will result in an overall improvement of habitat on the site for the GGBF.

The only recommendation of the study that hasn't been incorporated into the design or management of the proposal elsewhere is the requirement to monitor GGBF habitat and use of the site. This should be included as a condition of consent.

Management Plan

A draft management Plan is provided in the appendix. It appears appropriate and many of the items within the Plan have been incorporated into other components of the development. One item that is not covered elsewhere or in enough detail within the Plan is the monitoring of groundwater. While the EMP notes it will be monitored and reported there are no details as to where, how often or to whom. There are current monitoring requirements attached to the existing consent for the landfilling operation, it may be that this existing monitoring will be sufficient for the subsequent playing field development. It is recommended that a review of existing groundwater monitoring be undertaken

to ascertain whether it is suitable for ongoing purposes or requires upgrades and additions to encompass the current proposed works. This should then be incorporated into the EMP. This should be included as a condition of consent.

Recommended Conditions of Consent

Conditions Prior to Issue of CC

- Volumes of any fill material to be brought onto the site should be calculated and incorporated into the Environmental management Plan for the Stage 1 works prior to the issue of a Construction Certificate.
- Approval shall be obtained from the NSW Office of Water for the proposed stormwater and groundwater management works prior to the issue of a Construction Certificate.
- Prior to the issue of a Construction Certificate, the Environmental Management Plan for the site shall be amended to include a monitoring program for the Green & Golden Bell Frog and its habitats. This monitoring program shall be prepared by a suitably qualified consultant.
- Prior to the issue of a Constructing Certificate, the Environmental Management Plan shall be amended to include a Groundwater Monitoring Program. This program shall be developed by a suitably qualified consultant.

Other Conditions

- Any vegetation stripped from the site that is not suitable for mulching and reuse shall be disposed of off-site or buried within the general landscape areas beyond the playing fields, roads and amenities. Buried vegetation shall not exceed 200mm in thickness in any one area.
- Detailed design of the Stage 1 infiltration basins and landscaping works within the Captain Cook Drive frontage shall provide for the retention of the Aboriginal heritage item recorded in this area.
- Banksia aemula shall be removed from the landscape species list.
- The development shall be carried out in accordance with the Environmental Management Plan for the site. Ongoing management and monitoring of the site shall be also be undertaken in accordance with the Environmental Management Plan.”

**Supplementary Comments From Council's Manager Environmental
Science & Policy/Principal Environmental Scientist
In response to submission from Office of Environment and Heritage**

"Some of the comments from Office of Environment and Heritage (OEH) relate more to the specifics of the overall proposal (ie the Masterplan) rather than specifics associated with the detailed Stage 1 application. However by flagging these issues now hopefully we can come up with a more complete application that addresses these concerns when the detailed development applications for stage 2 and 3 are submitted in the future. The nature of the current DA, with some areas of detail and others more concept does make for some confusion when assessing the application, and determining when to include detailed conditions.

Each of the OEH's points are addressed below:

Aboriginal Heritage

It is agreed that a full assessment can't be undertaken until all the studies have been completed. To overcome this, a condition has been imposed relating to the final design of the stage 1A works requiring the incorporation of the findings of the archaeological study. The remainder of the site should be free from archaeological constraints due to the degree of disturbance from sand mining and filling.

Kurnell Dune Forest

It is agreed that the restoration works require further detail. Most of the restoration works are done in areas included in stage 2 and 3, and therefore detail is probably required later in subsequent DAs rather than here. However what is needed is the development of a Landscape and Rehabilitation Management Plan (similar to that developed by Australand for their residential development) which outlines goals, monitoring, etc for the site. Whether this condition is imposed as part of this DA or required as part of the supporting documentation for the subsequent stage 2 and 3 DAs is something that needs to be determined.

Green & Golden Bell Frog

OEH raise concerns about the lack of info concerning the success of current Green & Golden Bell Frog (GGBF) initiatives. Australand have produced a report outlining the success of habitat works on their site, which indicate that it is functioning as planned. It appears this report has not been made available to OEH. OEH also raise concerns about existing groundwater quality and impacts from existing and past uses. Breen has been monitoring groundwater quality in this area for the past 17 years. Results indicate that there has been no significant impact to groundwater or ecosystems during this period.

Despite the addressing the concerns above, I also have some outstanding issues with the proposal regarding GGBF. In my previous memo I recommended a condition requiring monitoring of GGBF habitat associated with the Stage 1 works. I agree that an overall Green & Golden Bell Frog

Management Plan should be developed for the site as suggested by OEH. Again I'm not sure if this a condition for the current DA of future more detailed DAs. Perhaps now, when considering the Masterplan, is the best time to ensure that future DAs have regards to the requirements of such a plan.

White-fronted Chat

Similar to the above I am not sure when the best time to address this issue is. While the detailed Stage 1 works may provide some habitat for the White-fronted Chat, the majority of the habitat will come during stages 2 and 3. Again it may be best to refer the Masterplan DA to Dr Major now so that his recommendations can be incorporated into the detail to follow in stages 2 and 3.

Migratory Wafers in Quibray Bay

Directional lighting on the playing fields should avoid these impacts. Perhaps a condition that maximum light levels in the adjoining Quibray Bay wetlands not be increased by more than 20% as a result of the development (less than the difference of a cloudy vs clear night) could be an easy measure to ensure that impacts are minimised.

The OEH letter addresses many concerns that I had with the application. The major difference appears to be when the best time to address these concerns is. Addressing them as conditions to the Masterplan DA is probably a better way to go as the required Management Plans, etc, will then inform future DAs for stages 2 and 3."

Comments from Council's Assessment Engineer

"As requested I have examined the plans for the staged development of the proposed parklands and playing fields at Captain Cook Drive that formed part of the VPA for the Australand/Breen developments.

Having regard to the proposal I make the following comments:-

A) The proposed access points have been discussed at Traffic Committee and the points, type and number of access points shall be the subject of further investigation. I wish to note the obvious that Captain Cook Drive traffic is basically industrial in nature and that it is designated as a "B-Double" route. Having regard to the fact that the ultimate form of the Breen development on proposed Lot 5, (25.76 Ha), has not as yet been determined or even proposed in 'draft' form, the traffic generation of Lot 5 with Captain Cook Drive should take into consideration the potential generation rates of every permissible use of the land under the ultimate zoning and also include the potential geometry of access to the lot over proposed Lot 6, (Future Road), by "B-Double" type vehicles. The potential of a freight line depot at this location cannot be discounted.

B) The Stage 1A plans indicate the construction of one playing field, one "Frog Pond", a circulation roadway, a future Skate Park, formalised car parking and overflow parking together with a combined multi-purpose pedestrian/cyclist pathway. The plans detail that access to the parking area for the Playing Field 1 has been made accessible for tourist coaches/school buses etc from Captain Cook Drive via Road No.7 however there is only formalised parking detailed on Drwg P7-3 for the parking of two such vehicles. I believe that a hardstand area should be provided specifically for the use of these vehicles for at least three coaches/buses as part of the development.

C) No information appears to be available regarding the methods to separate the proposed Skate Park from the "Frog Pond". Having regard to the nature and extent of the incursions by pedestrians and litter accumulation into the surrounding bushland currently occurring at the Menai Park skate facility and the nature and location of the "Frog Pond", measures should be provided to separate the ponds from the skate park/playing field users to ensure the longevity of the pond and the maintenance of a clean, rubbish free environment for the frogs.

D) The Stage 1A plans show the 2.5m wide and variable multi-purpose pedestrian/cyclist pathway through the site entering and paralleling Captain Cook Drive within the road reserve before it re-enters private property of the Breen Holdings land at Proposed Lot 5. If the integrity and safety of the Stage 1A facilities is to be maintained it is considered that this pathway should be relocated such that it remains within private property at all times, behind suitable fencing. Such action would remove the necessity for the installation of gates with the attendant requirement for their opening/closing and also has a safety benefit to users of the proposed pathway where it immediately abuts the road carriageway of Captain Cook Drive.

E) The Stage 1B works involve the construction of two playing fields, a circulation roadway, a pedestrian/cyclist footpath within Captain Cook Drive

similar to that detailed in D) above, a “Frog Pond”, large sedimentation basin, formalised car parking and overflow parking. While it is recognised that Proposed Lot 6 is to be dedicated and constructed as a public roadway and as such must be crossed by the multi-purpose pathway, the pathway continues to the west within the road reserve of Captain Cook Drive before re-entering the Stage 1B works. This should be re-routed to lay wholly within the area of the Stage 1B boundaries clear of Captain Cook Drive. Comments as per D) above.

F) Similar to Stage 1A, the application proposes another “Frog Pond” abutting proposed Road No.1 together with a substantial infiltration/sedimentation basin area. Comments as per C) above.

G) The Stage 1B works propose two playing fields and associated parking however there is no formalised hardstand for tourist coaches/school buses. This is shown to form part of Stage 3. Permanent facilities should be provided for a hardstand for coaches within Stage 1B and incorporate standing areas sufficient for at least three tourist coaches/school buses. The Overflow Parking Area and Temporary Turning Head appear not of sufficient size to adequately cater for tourist coach/school bus turning and parking.

H) The Stage 2 development includes the construction of three playing fields, incorporating a cricket pitch, together with a baseball diamond, grass swales and a bioretention swale, formalised carpark, overflow carparking and standing sufficient for only two tourist coaches/school buses. Comments relative to the availability of tourist/school coaches are as per B) above.

I) The proposed pathway/cycleway from Stage 1B into Stage 2 only extends as far as the boundary of the Stage 2 works and not within the site. There is no all-weather pedestrian access proposed for this stage at all and it is considered that this is discriminatory relative to pedestrians requiring an Accessible Path of Travel to and within this stage of the development. The location and extent of the grass swale between Field 5 and 10 and its extent between Fields 9 and 10 may make accessibility for disabled persons problematic in the absence of such a hardstand pathway.

J) Stage 3 development includes another three fields incorporating a cricket pitch and two car parking areas together with three “Frog Ponds” and an infiltration basin. Access to these parking areas is via the internal Road No.2 and/or the intersection with Captain Cook Drive. Carpark No.3 is accessed either via a roundabout to Road No.2 or from the north via a slip lane arrangement directly to the south of the Captain Cook Drive intersection. Such access is considered to be satisfactory for the proposed one way movement southbound in the car park but it is considered that the provision of two way movement would be beneficial within the car park and only minor, if any, additional width would be required in the access aisle, (See AS2890.1-2004, Figure 2.2 and Note 4). The access arrangement proposed for such a two way movement could be problematic as vehicles accessing the carpark from the slip lane encountering vehicles undertaking a three point turn at the car park’s northern extremity would be delayed. The proximity of the slip lane and the southern extent of the intersection of Road 2 with the Captain Cook Drive intersection could and, in my view, shall result in queuing that could extend into Road 2 potentially blocking Road 2 and the Captain Cook Drive intersection. However, it is considered that the provision of a two way movement within the car park As this is a major intersection for the proposed development accessing two major car parks, it is considered that this northern

slip lane access to the carpark should be deleted or alternative turning arrangements be made at the northern extremity of the carpark in conjunction with the slip lane. This could include but not be limited to the provision of a turning head at the northern end of the car park. This may result in the loss of some spaces however it is noted that any deficiency could be made up elsewhere in the Stage.

K) Stage 3 provides for approx three tourist coach/school buses. As this area provides access for five playing fields, it is considered that provision should be made for the parking of four tourist coaches/school buses. This, as in the other stages, would require minimal modification of the proposal.

L) The “Frog Ponds” within this Stage are shown to be fenced off from the surrounding development and these are at approximately the same distance from the playing fields as those located in other stages. Similar treatment should be provided for the other stages and the fencing/vegetation planting undertaken in a sympathetic manner so as not to provide a distinct, hard barrier between the ponds and the fields.

M) Within all stages there should be provision other than the combined multi-purpose pathways for the maintenance of all facilities by heavier vehicles, ie, those required for sediment removal from the sedimentation ponds and other heavier maintenance other than mowing.

N) Within all car parking areas, the provision of handicapped persons spaces should be made immediately adjacent to the pedestrian access facilities to the playing field amenity buildings. Those located within Carpark No.2 (Stage 1B) should be relocated further to the west.

O) At a meeting of the Precinct Committee with Australand the matter of the then proposed submission of the parklands development application was raised particularly with regard to the screening of the development from the roadway. This matter was raised relative to potential distraction of drivers as well as the potential visibility from this tourist road of graffiti associated with the skate park. The increase in proposed vegetative plantings/barriers along the Captain Cook Drive frontage of the site would potentially solve this problem.

P) The proposed subdivision of the existing allotments, Lot 5 in DP 1158627 and Lot 1123 in DP 794114, to create six (6) allotments would create proposed Lots 1 and 2 as internal allotments that are “landlocked” with no legal means of access to any public road. It has always been and remains Council policy and practice that any lots that are created by subdivision shall require legally created means of access to a public roadway. It is understood that all the allotments being created by the proposed subdivision shall at some future time, in accordance with the Voluntary Planning Agreement, be passed to Council. However, until that takes place, the ownership of the lots shall remain vested in Breen Property Pty Ltd. The proposed Linen Plan of Subdivision of the allotments should be amended to incorporate the minimum requirement for legal access to proposed Lots 1 and 2 via Rights of Carriageway over either the newly proposed Lot 5 or through Lot 111 in DP 777967 owned by Australand Kurnell Pty Ltd which is a party to the VPA – that land forming part of Stage 1B of the playing field development. The Rights of Carriageway can be expunged when the playing field lots are handed over to Council and all are amalgamated into one allotment.”

Comments from Council's Traffic and Transport Manager

"With reference to DA11/0665 above, I have undertaken a preliminary assessment of the Plans and Traffic Report dated July 2011 (Appendix 10 of the SEE) as provided by Colston Budd Hunt and Kafes Pty Ltd.

My comments are as follows:

Access and Egress

Captain Cook Drive

The July 2011 Report from Colston Budd Hunt and Kafes Pty Ltd has in some ways attempted to address the previous concerns with the residential subdivision but only with respect to a traffic analysis of the current intersection designs for Roads 1 (Intersection 1), 2 (intersection 2) and Lindum Road (intersection 3) with Captain Cook Drive. All 3 intersections are standard T intersections with auxiliary left and right turn lanes but do not provide controlled access and egress to and from the site. I have a general concern with the overall safety of this arrangement for the following reasons:

- They will not physically reduce vehicle speeds on Captain Cook Drive. Physical speed reduction in conjunction with a reduced speed limit is appropriate given the proposed development.
- They do not provide controlled access and egress to and from the site for what will be significant peak turning traffic movements. The safety of right turn movements into and out of the site during peak times is of obvious concern.
- They create unsatisfactory conflict between cyclists on Captain Cook Drive and vehicles entering and exiting the site. Note that Captain Cook Drive has high cycling activity of a weekend which will coincide with peak usage of the playing fields.
- They make no provision for pedestrians to cross Captain Cook Drive. Whilst pedestrian volumes will be low, pedestrian access to public transport along Captain Cook Drive must be addressed.

In relation to intersection 1, it is evident that the current design will not operate satisfactorily upon further development of adjoining Breen's land to the south of the site (lot 2 1101922). It is also evident that with respect to the current DA that this intersection is only necessary to facilitate the staging of the current proposal. If not for the staging requirement, intersection 1 could be deleted and intersection 2 redesigned to service fields 2-10.

It is my opinion that appropriately designed roundabout treatments that adequately cater for all vehicle, cyclist and pedestrian movements at intersections 2 and 3 should be further investigated in conjunction with the closure of intersection 1 on completion of Stage 3. These intersection treatments along with a reduced speed limit in Captain Cook Drive would better address my points of concern outlined above. Intersections should be analysed to reflect different traffic patterns for each stage of the development.

The Intersection treatment for access and egress to and from Breen's land to the south of the site (lot 2 DP 1101922) would be subject to any future DA for this property. Access to the playing fields via this intersection could be reviewed at this time.

I would suggest that a meeting be convened between ESD and the applicant, applicants traffic consultant and myself to clarify assumptions used in the traffic modelling, my concerns with the proposed access and egress and the alternative access/egress proposal.

Lindum Road

The treatment of Lindum Road at the entry to Field 1 and existing entry to Holts Land (Lot 2 DP 559922) needs to be clarified.

Parking

Parking provision has been provided in accordance with the numbers specified in the VPA. However, no solid evidence has been provided as to their adequacy. I would have expected that a traffic and parking analysis based on a similar facility such as the The Ridge playing fields would have been undertaken, including traffic and parking surveys. Whilst it is now too late in the season to undertake surveys for regular season demand, a comparison should still be undertaken. A survey of peak demand for finals could be undertaken this weekend. It should be noted that Council has recently constructed additional formalised parking at the Ridge due to greater parking demand than was originally predicted for this facility.

Parking provision should also be looked at individually for each stage of the project. In this regard it is noted that Field 1 and Fields 4, 5 and 10 are isolated from the main parking area adjacent fields 2 and 3. A collective parking analysis is misrepresentative of its ability to cater for parking demand at each facility.

Additional detail on the functionality of individual overflow parking areas should also be provided.

Parking provision is critical to avoid overflow parking in Captain Cook Drive. Formalised parking should be sufficient to cater for regular season activities and overflow parking provision should be sufficient to cater for peak events, such as finals and carnivals.

Internal Roads and Parking design

- Concerns with the proximity of the entry from Road 2 to the parking area adjacent field 3 with intersection 2/Captain Cook Drive.
- Clarification of Pedestrian access to and from bus bay in Road No 2 required
- Pedestrian access across Road No 1 unsatisfactory.
- Sight distances at roundabout on road 2 should be examined
- Swept path manoeuvring analysis for buses should be provided.

Other

Frontage treatment along Captain Cook Drive limiting pedestrian access to playing fields and Skatepark needs to be detailed.”

Supplementary Comments from Council's Traffic and Transport Manager subsequent to Recommendation of Consultative Traffic Forum

"The Recommendation from Consultative Traffic Forum last Friday was as follows:

The Consultative Traffic Forum expressed concern with the proposed traffic and parking arrangements and indicated the following:

- *Preference for roundabout controlled intersections to provide safe access and egress to and from the playing fields.*
- *That the adequacy of the proposed parking provision be further assessed.*

At a subsequent meeting (also held last Friday with Australand representatives, Des Hewitt, myself and Chris Greig) it was agreed with Australand that the roundabout option be further investigated. Des has instructed our design office to prepare concepts for roundabouts at intersections 1 and 3 to determine feasibility and obtain indicative costs for comparison with current proposal for reporting to the management committee. Australand agreed to have their traffic consultant look at the roundabout option in terms of their capacity to cater for projected traffic volumes.

As such, my previous comments still stand, with the exception that I now note that intersection 2, which is necessary to provide access under the staged approach, is also necessary under the current design for circulation of buses through the site."

Comments from Council's Natural Area Manager

“1. **Aboriginal Heritage**

An Aboriginal site is recorded in Lot 1 DP 1101922 where Field 1 is located. It is noted that an Aboriginal heritage assessment will be undertaken and an archaeologist has been engaged with the intent to obtain an Aboriginal Heritage Impact Permit to destroy the site.

The site should be left in situ in respect of the original inhabitants of the area. Aboriginal people inhabited the entire peninsula and at least one place on the project site should be left to be interpreted with signage for visitors to appreciate. Aboriginal people once camped here and mollusc shells still remain on site as evidence of them camping and sharing food.

2. **Pedestrian Links to Charlotte Breen Reserve**

Figure 6. VPA Facilities (p12) indicates a pedestrian link between Charlotte Breen Reserve and the new facilities that cuts through the centre of the reserve. A better connection already identified as Boes' Track is from near the look out in Charlotte Breen Reserve, along the boundary fence with Sydney Water then joining the pedestrian link north of the heritage dune.

3. **Landscape Works**

3.3.5 Public Domain Landscaping and GGBF Habitat

“Establish a framework of vegetation using a mix of locally indigenous species with select exotic species.” Comment: No exotic species other than turf for ovals.

Planting Schedule Landscape Plan 01 /04

Species selection should reflect local landscape character of coastal sand dune area between sandy headland and Cronulla which has limited species:

- *Araucaria heterophylla* – delete
- *Banksia aemula* – replace with *B. serrata*
- *Eucalyptus haemastoma* – delete – replace with *E. robusta*
- *Hakea dactyloides* – delete – replace with *Allocasuarina littoralis*.
- *Poa labillardiera* – delete – replace with
- The use of *Angophora costata* along Captain Cook Drive – delete. The Captain Cook Drive frontage should be restricted to *Banksia integrifolia*, *Casuarina glauca* and to a lesser extent *Cupaniopsis anacardioides*.

Other indigenous species not included to consider:

- *Melaleuca ericifolia*
- *Imperata cylindrical*”

Comments From Council's Manager, Community Services

I can understand the need to reduce conflicts as a strategy to prevent accidents, but perhaps what we need to do is the opposite? Maybe we need to slow things down along this whole section of Captain Cook rather than look at strategies that actually allow motorists to maintain or even enable greater speeds. If we took this approach then possibly an entry at the mid point between the skate park and football field would work well.

It could actually save money in the short and long term:

- we don't need to construct a long road at the rear of the football field,
- we get a carpark that services two facilities,
- we could position the clubhouse / change rooms to get better surveillance of both the field and skate park from, the carpark reducing vandalism costs
- we could put a bus drop off point directly adjacent to the skate park so the kids can use public transport (when it runs)
- More users will use the allocated car park reducing demand to improve the carpark for the wetlands which is dirt but will be rapidly degraded by constant use
- Fewer no parking signs and their maintenance
- Less 'policing' of no parking areas

From a safety perspective it would have benefits:

- Skaters will undoubtedly use the nearest available parking that is most easily accessible to the skate facility - ie the dirt wetlands carpark on the opposite side of the road. People (P platers) will probably make U turns out of this car park to return to Cronulla. Speed at this point will be a major safety issue.
- We should have a bus stop here for kids to get off the Kurnell bus to access the skate park. They will have to cross the road. Speed again will be a major safety issue

The fact is we made a decision to place these facilities a long way from anything, 5 Kms down Captain Cook Drive. Having made that decision we need to look at how we best manage access to what are going to be extremely popular facilities, increasingly so as more infrastructure gets established here. People will park here to go for walks and exercise, not simply use the facilities - further increasing usage of this area.

I know that the Traffic Committee already has concerns about speeds and safety on Captain Cook Drive, it has been raised whilst I have been there. There have been three fatalities on this road already this year. And, with this development, we will significantly increase usage in the area - traffic (bus and private vehicle), foot, skate and bicycle - all as a means of getting there.

Why not slow things down completely and even put a roundabout in at the skate park / rugby field entry and reduce all movements to a few kms an hour ? We are fundamentally changing the nature of Captain Cook Drive by putting this extent and style of facility in, yet our strategy is to maintain the

road as an industrial highway that gets you from A - B as fast as possible. It's days as this type of road are numbered.

Captain Cook Drive leads to the 'Birthplace of Modern Australia' which will increasingly become a tourist destination. It has environmentally significant wetlands on the northern Botany Bay side and will have a state of the art recreational facility on the southern side. We should endeavour to start creating a new 'branding' for the road that reflects its importance from a historical and environmental perspective, whilst at the same time achieving the social objectives of the recreational areas - and even more critically enhancing the safety of all users.

Dave Ackroyd
Manager - Community Services