

2012SYE065 - 15R Bate Bay Road, 452 Captain Cook Drive,
Greenhills Beach & 405-417 Captain Cook Drive &
31 Lindum Road, Kurnell

DA12/0476

SUPPLEMENTARY ASSESSMENT REPORT APPENDICES

Appendix	A	Ö!æoŌ[} åã } • Á -Ō[} • ^ } c
	B	Õ^ } ^! aÁ^! { • Á -Ō[] ! [çæŮ~ æŮa^Ů^! çæ^
	C	Õ^ } ^! aÁ^! { • Á -Ō[] ! [çæŮ } çã[] { ^ } ōŮ! [c & ç] ŌE cŮ! æ
	D	Õ^ } ^! aÁ^! { • Á -Ō[] ! [çæŮ ŮY Ů~ æ^ Á -Ů æ^! Á
	E	Õ^ } ^! aÁ^! { • Á -Ō[] ! [çæŮ^! ææ^ Ō[~ } & Ůæ æ^ Ů^] c { à^! ŌEFG
	F	Ō^ } ^! aÁ^! { • Á -Ō[] ! [çæŮ^! ææ^ Ō[~ } & Ůæ æ^ Ů^ à! ~ æ^ ŌEFH
	G	ŮŮŮŮ Á^ Ů -Ů^ çã^ Ů^ æ •

CONDITIONS OF CONSENT

MASTERPLAN CONDITIONS

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.

1. Approved Plans and Documents

The development shall be implemented substantially in accordance with the details and specifications set out on the Plan/Drawing No's. 600201-3001 to 3002 Rev.5, 600201-3003 Rev.8, 600201-3005 Rev.3, 600201-3006 Rev.6, 600201-3007 Rev.4, 600201-3008 Rev.2, 600201-3009 Rev.4, 600201-10 Rev.3, 60021-3011 & 3012 Rev.6, 60021-3013 Rev.7, 600201-3014 Rev.6, 600201-3015 Rev.4, 60021-3016 Rev.5, 600201-3017 Rev.4, 600201-3020 to 3023 Rev.3, 600201-3030 & 3035 Rev.4, 60021-3037 Rev.3, 600201-3040 Rev.4, 600201-3050 Rev.7, 600201-3055 Rev.4, 600201-3060 Rev.7, 600201-3065 & 3066 Rev.6, 600201-3067 Rev.4 and 600201-3070 Rev.1 prepared by Cardno and 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:

This development consent does not give approval to any form of gas ventilation system within the Don Lucas Reserve. If such a system is found to be required, a new development application is to be submitted for approval by the Consent Authority.

Note 2:

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

Note 3:

Prior to the commencement of any subdivision work a 'Construction Certificate' shall be obtained from Council or an Accredited Certifier.

Note 4:

Where there are inconsistencies within the approved plans in relation to the number of lots and Lot layout, Drawing No. 600201-3006 Rev.6 'Masterplan' shall prevail.

Note 5:

As the development the subject of this consent involves the subdivision of land and the issue of a subdivision certificate as defined under section 109E(2) of the Environmental Planning and Assessment Act 1979, please note that Sutherland Shire Council must be appointed as the Principal Certifying Authority for all Torrens Subdivision works.

Note 6:

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.

2. Prescribed Conditions - General

The following are prescribed conditions of development consent pursuant to s.80A(11) of the Environmental Planning and Assessment Act 1979 and cl.98 of the Environmental Planning and Assessment Regulation 2000.

A. Details to be provided to Council with the Notice of Commencement

Builders and Insurance details shall be provided to Council with the Notice of Commencement.

3. Staged Development

In accordance with Section 83B, development consent is granted for the overall conceptual layout, involving:

- The proposed road and residential lot layout of the land (ultimately resulting in 160 residential lots) which is to be delivered in two precincts (Precincts 1 and 2); and
- The infrastructure concept for the Development Site.

In accordance with Section 83B(3)(b), development consent is also granted for Stage 1 of the proposed development. The works that fall within Stage 1 are called the Stage 1 Works and include:

- Subdivision of the Shearwater Landing Site to create six lots;
- Soil remediation of the Shearwater Landing Site;
- Bulk earthworks of the Shearwater Landing Site;
- Construction of roads associated with the land identified as Precinct 1;
- Construction of infrastructure services in shared underground trenches within roadways in Precinct 1;
- Construction of infrastructure services in shared underground trenches within an infrastructure corridor in Precinct 2;
- Construction of connecting infrastructure to services outside of the Development Site;
- Landscaping of the public domain associated with the Precinct 1 roads;
- Installation of a passive aquifer recharge system on the Shearwater Landing Site;
- The augmentation of Council's existing stormwater treatment facility on Council land on the Wetland Basin Site; and
- Landscaping of the Reserve site, being the small affected area of the Don Lucas Reserve.

The following specified parts or aspects of the development shall be the subject of a further application for development consent:

- Installation of a passive gas venting system on the Reserve Site if required;
- The subdivision of Precinct 1 to create 127 residential allotments; and
- The construction of roads, infrastructure services, landscaping and subdivision to create 33 residential allotments in Precinct 2.

SUPERLOT SUBDIVISION CONDITIONS

4. Section 73 Compliance Certificate

A Compliance Certificate under s73 of the Sydney Water Act, 1994, shall be submitted to Council prior to the issue of the Subdivision Certificate for the superlots. 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.

5. Linen Plan of Subdivision to Conform with Development Consent

The Linen Plan of Subdivision for the six (6) superlots shall conform with Council's Development Consent No.12/0476 and all relevant conditions.

6. Endorsement of Linen Plans of Subdivision by Council

To facilitate the issue of the Plan of Subdivision for the six (6) superlots, following completion of the relevant requirements detailed in the conditions of this Development Consent and the issue of the Subdivision Certificate by Council, a film 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.

7. Temporary Rights of Carriageway

Rights of Carriageway of 4.0m minimum width and Easements to Drain Water shall be provided as part of the superlot subdivision to ensure legal right of access and drainage for any of the superlots not having a road frontage that would otherwise be landlocked. These Rights of Carriageway and Easements to Drain Water shall be expunged at the time of the residential subdivision of each of the proposed superlots.

8. Drainage Easements - Subdivision

Easements to drain water of minimum width 1m shall be created in favour of Sutherland Shire Council, over:

- a) The alignment of interlot drainage lines,
- b) The area required for on-site infiltration, and
- c) The rights of carriageway within relevant allotment(s).

The easements and terms thereof shall be created under the provisions of s.88B of the Conveyancing Act, 1919.

9. Positive Covenant - Stormwater Infiltration

A positive covenant shall be created on the title of the property pursuant to Section 88E of the Conveyancing Act, 1919 as amended with respect to the provision and

maintenance of the stormwater infiltration system. The location and extent of the infiltration system shall be delineated on the Linen Plan of Subdivision. The covenant shall burden proposed Superlot 1 within this development with respect to maintenance. The registered proprietor(s) of the property(s) thereby burdened shall covenant with Sutherland Shire Council and its successors not to alter or modify the stormwater infiltration facility except as permitted by this consent.

SOIL REMEDIATION, BULK EARTHWORKS & CIVIL CONSTRUCTION WORKS CONDITIONS

10. 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:

- Heritage Office
- Environmental Protection Authority
- NSW Office of Water (formerly Department of Water and Energy).
- Rural Fire Service.

A copy of the requirements of the approval Authorities is attached to this development consent. Suitable amendments shall be made to the proposed development in accordance with these requirements and these details shall be submitted to Council along with the Construction Certificate.

11. 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.

12. Consultation with Cronulla High School

Consultation with the Principal of Cronulla High School (or his/her delegate) prior to the commencement of works and during remediation, bulk earthworks and construction works is to be undertaken by the applicant/developer as follows:

- a) Prior to the commencement of works the developer is to obtain from the school such information as the school is willing to release, identifying critical school periods during which limited noisy operations would be preferred.
- b) Prior to the commencement of works the developer is to provide the school principal an anticipated works agenda which identifies what measures will be taken to manage the works on site to mitigate noise impacts during critical timeframes identified by the school.
- c) During works the developer is to provide the Principal or his/her delegate with a monthly progress sheet for the development.
- d) During works the developer is to offer to meet with the Principal or his/her delegate, not less than monthly.

13. Pet Ownership

A Restriction as to User shall be created over the title of all residential allotments under the provisions of Section 88B of the Conveyancing Act, 1919, as amended giving effect to the following restrictions for the keeping of dogs and cats in order to protect native fauna and flora.

The keeping of cats on this property shall be subject to the following conditions:-

- a) A maximum of two (2) cats are permitted to be kept on the property at any time.
- b) Cats must be kept completely within the dwelling house or in a cattery or cat run within the dwelling curtilage at all times (day and night).

The keeping of dogs on the property shall be subject to the following conditions:-

- a) A maximum of two (2) dogs are permitted to be kept on the property at any time.
- b) Unrestrained dogs shall be kept within the dwelling curtilage during the hours between sunset and sunrise each day by fencing/caging enclosures, leashing or physical restraint.
- c) Dogs are not permitted to enter areas of indigenous vegetation at any time.
- d) Dogs must be kept restrained on a leash on all access tracks to and from the property.

14. Site Access

No vehicles or machinery associated with the approved works are to access the site from Bate Bay Road except as approved by Council.

15. Remediation Works

The remediation works recommended in the approved Remedial Action Plan shall be completed under the supervision of an appropriately qualified environmental scientist.

16. Building Height Restriction

Proposed lots 267 to 272 inclusive shall have a maximum building height of 4.5m measured vertically from the RL at the front building line of each lot. To accommodate the crossfall of each lot, the RL is to be taken from the midpoint of the front building line.

17. Bate Bay Road - Primary Frontage

With regards to building setbacks, the primary frontage of proposed Lots 266, 267 and 268 shall be Bate Bay Road.

Bonds and Contributions

The following security bonds and contributions have been levied in relation to the proposed development.

18. Public Place Environmental, Damage & Performance Security Bond

Before the commencement of any works (including demolition) or the issue of a Construction Certificate, the applicant shall provide security to Council against damage caused to any Council property and / or the environment as a consequence of the implementation of this consent. The security may be provided by way of a deposit with the Council or a satisfactory guarantee. A non refundable inspection / administration fee is included in the bond value.

It is the applicant's responsibility to notify Council of any existing damage to public areas in the vicinity of the development site through the submission of a current dilapidation report supported by photographs. This information shall be submitted to Council at least two (2) days **prior** to the commencement of works.

Should any public property and / or the environment sustain damage during the course of and as a result of construction, or if the construction works put Council's assets or the environment at risk, Council may carry out any works necessary to repair the damage and / or remove the risk. The costs incurred shall be deducted from the security.

A request for release of the security deposit may be made to Council after all works relating to this consent have been completed. Such a request shall be submitted to Council on the '*Bond Release Request Form*' signed by the owner or any person entitled to use of the consent.

The value of the bond shall be \$100,000.

Note: Bond amount includes a non refundable administration fee of \$120. Where the bond takes the form of a Bank Guarantee, the \$120 administration fee must be paid separately.

19. 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 A CONSTRUCTION CERTIFICATE

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.

20. Design Changes Required

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

- a) The road narrowing and proposed contrasting pavement treatment and pedestrian crossing in Road No.2 at its northern intersection with Road No.1 shall be deleted.
- b) The eastern kerb blister in Road No.1 at its intersection with Road No.4 shall be removed to create a standard "T" intersection.
- c) Contrasting pavement treatments shall only be provided at the proposed one-way slow points on Roads 1 and 2 and the raised threshold north of the intersection of Roads 1 and 2. The blistered nature strip (footpath area) adjacent to either side of the contrasting pavement treatments shall be densely landscaped so as to prevent pedestrian movements onto and across the threshold/slowpoints.
- d) The length of the contrasting pavement at the one-way slowpoints shall be reduced by approximately 50% so as to be located between the built out blisters only.
- e) The proposed raised threshold at the intersection of Bate Bay Road and Road No.2 is to be redesigned so as to align with the footpath allocation for Bate Bay Road to provide for direct pedestrian movements across the top of the threshold rather than being positioned within the development site. In this regard the threshold shall also act as a visual barrier to dissuade motorists from utilising Road No.2 to gain alternate access to the adjacent Australand development.
- f) To provide safe vehicle access while maintaining suitable amenity to the future property owners, proposed Lot 108 is to be accessed from its southernmost end.
- g) To reduce the visual and environmental impact of the landform and future dwellings:
 - i) the land is to be graded to provide a relatively even slope between the approved contours
 - ii) proposed Lots 138-142, 202-209 and 267-272 shall be graded within the first 6.0m from the front boundary line to achieve a maximum level difference of 750mm below the invert level of the kerb and gutter fronting the property.

Details of these design changes shall accompany the Construction Certificate.

21. Detailed Landscape Plan

The detailed landscape plan for the residential area, taking into account information provided in the tree survey and arborist report, 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 detailed landscape plan shall accord with the environmental and landscape aims of Sutherland Shire Council's *Greenhills Beach Development Control Code*, *Kurnell* and *Urban Tree and Bushland Policy*.

The detailed landscape plan shall contain the following information clearly shown in plan, section and detail:

- (i) The proposed contours/levels, the road and footpath layout, kerbs and gutters, proposed driveway crossings, pram ramps, raised thresholds, road narrowings, underground services, fences, grass verges, mass planting beds, and trees and shrubs in grass including edging, staking and temporary protective measures for street trees.
- (ii) A detailed planting plan showing the following information:
 - Street tree planting:
 - Street trees shall be of mixed species and sizes (large and small trees) except at the entrances to the subdivision from Australand and Bate Bay Road where street trees shall be of mixed species but large trees only.
 - On all roads, trees shall be planted in informal groups of two to three (2-3 no.) trees per lot. Planting shall allow for sight lines, a setback from each side boundary of 5.0m to allow for a driveway and a setback from the kerb to the centre of the tree of at least 1.0m. The number of trees per lot may be increased or decreased according to the size and location of the individual lots.
 - On the ridge line only of Road 1, street tree planting shall be an informal mixture of *Banksia integrifolia* and *Melaleuca armillaris*. *M. armillaris* shall only be planted on the side of the road with no footpath. The sloping sections of Road 1 shall contain the same species as used in Road 2 (see below) as these sections of road are more sheltered. The entrance sections of Road 1 that adjoin Australands and Road 2 that adjoins Bate Bay Rd shall be planted with an informal mixture of *Eucalyptus botryoides* and *Angophora costata*.
 - Roads 2, 3 and 4 and the sloping sections of Road 1 shall be planted with an informal mixture of *Angophora costata*, *Cupaniopsis anarcardioides*, *Glochidion ferdinandii* and *Banksia integrifolia*.
 - Street trees shall provide adequate stopping sight distance compliant with the requirements of AUSTROADS and the proposed posted speed limit of 50km/hr.
 - Dense massed plantings of low shrubs, grasses and ground covers at road narrowings.
 - The proposed 3m wide landscaped buffer zone along the Captain Cook Drive frontage.

- The eastern most boundary with Don Lucas Reserve, including details of the fence and kerb along the boundary designed to prevent fertilisers, pesticides and weeds from the residences contaminating the revegetation area.
- Screen plantings of five (5) mixed indigenous small trees and tall shrubs (appropriate to the location as listed below) inside the drainage easement along the rear of each lot on the perimeter of the site adjoining Cronulla High School, the Australand development and Don Lucas Reserve.
- Small tree planting of mixed species to one side of the pedestrian laneways between Road No. 1 and Don Lucas Reserve/Bate Bay Road. Trees shall be planted at informal spacings centres between 3-5m.
- The proposed mass plantings between the footpath and front boundary of the lots.
- Plants are to be selected from the species listed below, according to the location, elevation and aspect of the trees proposed (trees suitable for street planting are underlined):

- **Low lying land adjoining Cronulla High and near Captain Cook Drive - RL8m and lower**

Trees:

Angophora costata, Casuarina glauca, Cupaniopsis anacardioides, Eucalyptus botryoides, Eucalyptus robusta.

Small trees:

Banksia integrifolia subsp. Integrifolia, Glochidion ferdinandi, Melaleuca aricifolia, Acmena smithii

Ground covers and Tufted Plants:

Carpobrotus glaucescens, Dianella caerulea, Dianella congesta, Dichondra repens, Hibbertia scandens, Isolepis nodosus, Juncus usitatus, Lomandra longifolia, Scaevola calendulacea.

- **Sloping hind dune areas (land oriented North to West) between RL 18m and 8m - Kurnell Dune Forest**

Trees:

Angophora costata, Cupaniopsis anacardioides.

Small trees:

Banksia integrifolia subsp. Integrifolia, Glochidion ferdinandi, Kunzea ambigua, Leptospermum laevigatum, Melaleuca armillaris, Monotoca elliptica.

Shrubs:

Acacia longifolia subsp. sophorae, Baeckea imbricate, Banksia ericifolia, Breynia oblongifolia, Correa alba, Notelaea longifolia, Pelargonium australe, Phebalium squamulosum, Westringia fruticosa.

Ground covers and Tufted Plants:

Carpobrotus glaucescens, Dianella caerulea, Dianella congesta, Dichondra repens, Hibbertia scandens, Lomandra longifolia, Scaevola calendulacea.

- **Exposed foredune areas on the ridge and facing sea (land oriented North East to South) - RL24m to RL 14m - Coastal Foredune Wattle Scrub**

Small trees:

Banksia integrifolia subsp. Integrifolia, Melaleuca armillaris, Leptospermum laevigatum, Monotoca elliptica.

Shrubs:

Acacia longifolia subsp. sophorae, Allocasuarina distyla, Breynia oblongifolia, Correa alba, Leucopogon parviflorus, Pelargonium australe, Rhagodia candolleana, Westringia fruticosa.

Ground covers and Tufted Plants:

Carpobrotus glaucescens, Dianella caerulea, Dianella congesta, Lomandra longifolia, Scaevola calendulacea.

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 Director of Environmental Services - Sutherland Shire Council for approval prior to the issue of the Construction Certificate.

22. Existing and Future Road Reserves

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

- A temporary concrete footpath crossing incorporating shaker pad and wheel wash bay for construction vehicle access.
- Road pavement construction.
- Stormwater drainage work.
- Removal of all redundant layback crossings and reconstruction with integral concrete kerb and gutter.
- Construction of 150mm concrete barrier kerb and gutter across the full frontage of the site in Captain Cook Drive.
- A layback crossing at the access points including within mountable kerb, such to be no closer than 6 metres to the intersection of adjacent roads.
- Construction of a combined cycleway/footpath across the full frontage of the site in Captain Cook Drive.
- Regrading, topsoiling and turfing of the footpath area to final design levels across the full frontage of and within the site and across adjacent properties where existing levels are altered and to all disturbed areas.
- Provision of conduits for the future undergrounding of public utility services, cable television and communications cables across the full frontage of the site to the extent required by the applicable service provider.

- j) Erosion and sediment controls.
- k) Provision of street landscaping and tree planting as specified by this consent.
- l) Adjustment to public services infrastructure where appropriate or required by the applicable service provider.
- m) Provision of pedestrian kerb ramps at intersections.
- n) Provision of linemarking and signposting as detailed on Council's design plan.
- o) Street lighting.
- p) Street name signs, traffic advisory and regulatory signs and linemarking as required.
- q) Pedestrian kerb ramps at intersections.

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 shall be prepared by Council's Engineering Division and issued by Council's Civil Assets Manager. A fee quotation may be obtained by submitting a "Detailed Frontage Design" application to Council. The application form can be obtained from Council's web site.

23. Site Management Plan

An Environmental Site Management Plan shall accompany any application for a Construction Certificate. This plan shall satisfy the Objectives and Controls in Sutherland Shire Environmental Site Management Development Control Plan Edition 1 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 control of air born dust for all aspects of the proposed works.
- i) 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.
- j) 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.

24. 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 revegetation and ongoing management of vegetation within the following management zones -

- a) The Don Lucas Reserve
- b) The Proposed Infiltration Basin
- c) Council's Wetland Basin

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 above two 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 revegetation works, including a list of species to be utilised during replanting on site (including species appropriate for the different management zones as detailed below);
 - Planting densities and species mix for replanting (as detailed below)
 - Specific landscaping treatments in each zone (e.g. fuel management, mulching, soil and stormwater management - which must ensure no adverse impacts on vegetation areas);
 - 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.
- a) Don Lucas Reserve
This area must be revegetated with suitable indigenous Coastal Fore-dune Species utilising (at a minimum) the species listed below. If any of the listed species cannot be sourced, they must be replaced with another suitable species.

The following densities must be utilised - 1 tree per 3m², 2 shrubs per 1m² and 3 groundcovers per 1m².

Small Trees	<i>Acacia longifolia</i> subsp. <i>sophorae</i> , <i>Leptospermum laevigatum</i> , <i>Banksia integrifolia</i> subsp. <i>integrifolia</i> , <i>Monotoca elliptica</i>
Shrubs	<i>Leucopogon parviflorus</i> , <i>Breynia oblongifolia</i> , <i>Rhagodia candolleana</i>

Ground Covers *Spinifex sericeus*, *Carpobrotus glaucescens*, *Ficinia nodosa*, *Pelargonium australe*, *Dianella congesta*, *Dichondra repens*, *Scaevola calandulacea*

- b) Proposed Infiltration Basin and Council's Wetland Basin
This area must be revegetated with suitable wetland species selected from the NSW Office of Environment and Heritage Final Determination for Freshwater Wetlands found at
<http://www.environment.nsw.gov.au/determinations/SydneyFreshwaterWetlandsSydneyEndComListing.htm>

Revegetation of this area should be designed in accordance with the guidelines outlined on pages 15 and 16 within the Sutherland Shire Indigenous Plants Guide found at
http://www.sutherlandshire.nsw.gov.au/Environment/Plants/Indigenous_Plants_Guide and include a variety of trees/shrubs and groundcovers at a density justified by the Bush Regenerator/ Ecologist.

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 and experienced bush regenerator / ecologist.

25. Pavement Design

- a) In accordance with Council's "Engineering Specification for Subdivisions and Developments" the design of the roadways shall comply with the following pavement design Equivalent Standard Axle criteria -
Roads No.1 and No.2, 5×10^5 ESA, Roads No.3, No.4 and No.5, 1×10^5 ESA.
- b) "Tripstop" footpath expansion joint material shall be employed at every joint in the concrete footpath areas throughout the entire site.

26. Detailed Tree Survey

A detailed survey shall be prepared by a Registered Surveyor. This survey is to show:

- i) All existing trees with a trunk diameter greater than 150mm within a 10m wide strip on the school side of the boundary with Cronulla High School and the school oval.
- ii) All trees within proposed Lots 102 to 108 and the verge along Captain Cook Drive proposed to be impacted by the development shall also be surveyed.

The survey shall detail the tree centre, canopy spread and existing level at the base of the tree.

The survey is to be submitted and approved by Council along with the detailed landscape plan.

27. Arborist Report

A detailed arborist report is to be prepared for all trees with a trunk diameter of greater than 150mm on site and on adjoining land that are affected by the construction works.

The arborist report is to be submitted and approved by Council along with the Detailed Landscape Plan.

28. Retaining Structure within Don Lucas Reserve

If any structure is required within the Don Lucas Reserve to retain fill around the existing buildings this is to be constructed as a stacked natural rock wall generally as approved by this consent to prevent excessive height, minimise visual impact and to provide for landscaping.

29. Construction Noise Management Plan (CNMP)

To minimise the impact on surrounding sensitive receivers, the CNMP, as required by the EPA in the attached General Terms of Approval, is to consider all aspects of the approved development including all earthworks and construction activities undertaken to complete the approved works.

30. 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.

31. Public Utilities - Subdivision

Arrangements shall be made with Energy Australia, Telstra, cable television network providers and other public utilities in relation to:

- a) The provision of underground low voltage electricity conduits and cable television conduits within the footway area of Bate Bay Road and Captain Cook Drive.
- b) The method of connection of the property to the Energy Australia supply, ie either

- underground connection or by overhead supply.
- c) The need for the provision of a kiosk-type substation.

32. Sydney Water - Notice of Requirements

Prior to the issue of the Construction Certificate relating to the infrastructure works 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.

33. Stormwater Drainage

The stormwater drainage for this development proposal shall be designed and constructed in accordance with the approved stormwater drainage design drawing and associated report and calculations, except where modified by the following:

- a) The drainage system is to be designed around a tailwater level of 0.9 metres AHD to allow for Sea Level Rise.
- b) The design shall be supported by a catchment area plan and drainage calculations (including a Hydraulic Grade Line Analysis).
- c) Detail layout of the drainage system 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.
- d) Reduce the extent of pipelines being located within the proposed road carriageways.
- e) Relocate the proposed pipeline within Trinity Street such that it is retained under the kerb line to a greater extent rather than within the nature strip (footpath area) west of proposed Lot 105. The pipeline may be constructed as proposed only if written approval is provided to Council from all public utility service providers who are signatories to the Road Opening Conference together with all cable television and telecommunications providers having an interest in underground services within the road reserve.
- f) Locate the alignment of all existing public utility services, cable network services and the like within the footpath areas of Captain Cook Drive and Elouera Road to ensure there is no conflict between the proposed stormwater drainage pipelines and the alignment of the proposed kerb / gutter.
- g) Relocate the proposed Gross Pollutant Traps within Captain Cook Drive to provide adequate and safe access for maintenance.
- h) The Passive Aquifer Recharge Basin (Infiltration Basin) shall be redesigned to provide a more natural system by replacing the stepped sandstone boulder edging with a sloped natural batter to be planted. This design shall ensure the following:
 - The maximum depth of water in the basin shall be 300mm,
 - The required volume of infiltration is retained.
- i) A drainage depression shall be provided for the full width and length of the drainage easements that facilitate the overland escape flow of stormwater. The escape route shall be designed to have the capacity to carry the difference between a 1 in 100 year flow and half the flow in the pipeline within the easement.

Certification from an Accredited Certifier or a Chartered Civil Engineer, to the effect that the stormwater drainage and infiltrations system design has been prepared having regard to the conditions of development consent, shall accompany the application for the Construction Certificate.

Certification from an Accredited Certifier or a bush regenerator/ecologist, to the effect that the infiltration system has been prepared having regard to the conditions of

development consent, shall accompany the application for the Construction Certificate.

PRE-COMMENCEMENT CONDITIONS

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

34. 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; and
- c) Notice of commencement has been provided to Council 48 hours prior to commencement of construction work on the approved development.

35. Pre-commencement Inspection

A pre-commencement meeting is to be convened by the Applicant on-site a minimum 5 days prior to any demolition and/or construction activity 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 Environmental Specification 2007.

36. Signs to be Erected Sites

A rigid and durable sign shall be erected prior to the commencement of work and maintained in a prominent position site. The responsibility for this to occur is that of the principal certifying authority or 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 for the work, 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.

37. Appointment of a Supervising Arborist

Prior to the commencement of any demolition or works on site the applicant shall engage a suitably qualified and experienced Arborist (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 5).

The Supervising Arborist shall:

- a) Approve the temporary protective fencing around trees to be retained before any excavation or construction begins.
- b) Be present during any works within the dripline of any tree marked for retention on Council land and have the authority to direct works to ensure the trees long term preservation.
- c) Ensure any excavation within the dripline of the tree/s is hand dug and to oversee works and strictly supervise that there is no disturbance or severing of roots greater than 50mm and to cleanly cut and treat those roots between 10-50mm in diameter.

38. Detailed remediation plans

Prior to the commencement of remediation works, the following detailed plans, as required by the site auditor in the submitted Site Audit Statement, are to be prepared -

- a) Remediation and Earthworks Detailed Design Plan/s.
- b) Construction Environmental Management Plan.
- c) Soil and Groundwater Validation Plan.

39. Dilapidation Reports

To assist in the resolution of any future disputes about damage to properties adjoining the development site, prior to commencement of any work on site the Applicant shall organise dilapidation reports on all buildings within the Cronulla High School grounds, all buildings adjoining the site on Don Lucas Reserve and the buildings at 1 and 2 Kirkwood Road, 2, 4, 6, 8, 10 and 12 Bate Bay Road, 1 and 2 Berry Street, 1 and 3 Sanderson Street. The reports must be prepared by a suitably qualified and experienced person of the necessary expertise and a copy must be supplied to the owner(s) of each property and to the Principle Certifying Authority.

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.

40. Permitted Hours for Building and Demolition Work

To minimise the noise impact on the surrounding environment all building and demolition work shall be carried out only between the hours of 7.00am and 6.00pm Monday to Friday inclusive, 8.00am and 3.00pm Saturdays. No work shall be carried out on Sundays and Public Holidays.

41. Site Safety

- a) All works associated with the development shall be executed safely and in accordance with appropriate professional standards.
- b) All works must be properly guarded and protected to prevent them from being dangerous to life or property.

42. 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.

43. Support for Neighbouring Buildings, Stormwater Drainage Systems and Fences

If an excavation associated with the development extends below the level of the base of the footings of a building or of any stormwater drainage pipelines, pits or other facilities on an adjoining allotment of land, the person causing the excavation to be made:

- a) Shall preserve and protect the building from damage.
- b) If necessary, shall underpin and support the building/s, stormwater pipelines and pits, fences and other structures in an approved manner.
- c) Shall, at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.
- d) The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this clause, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

In this clause, allotment of land includes a public road and any other public place.

44. 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 in the erection or demolition of a building or other development:
 - i) is likely to cause pedestrian or vehicular traffic in a public place to be obstructed, inconvenienced, or rendered unsafe; or
 - ii) building involves the enclosure of a public place,
A hoarding or fence shall be erected between the work site and the public place.
- b) If necessary, an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place.
- c) 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.

45. Noise Control during Remediation, Earthworks and Construction

To minimise the impact on the surrounding environment 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. The applicant must inform all potentially impacted residents and neighbouring school of the nature of the works, expected noise levels and duration.

46. Vibration Damage

To minimise vibration damage and loss of support to the buildings in close proximity, a geotechnical engineer's report shall be prepared detailing constraints to be placed on earthmoving plant and equipment and the method of any excavation, shoring etc. This report shall accompany the application for a Construction Certificate.

47. 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 the Sutherland Shire Environmental Specification 2007 - Environmental Site Management.

48. 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 Sutherland Shire Environmental Site Management Development Control Plan Edition 1 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; 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.

49. Construction of Existing and Future Public Frontage Works

The required road frontage works as detailed in the Condition "Existing and Future Road Reserves" of this consent shall be constructed in accordance with the requirements of Council's adopted "Specification for Civil Works Associated with Subdivisions and Developments":

50. Disposal of Site Soils

All soils to be disposed of off 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.

51. Fill Material - Don Lucas Reserve

To maintain the permeability of the land in the Don Lucas Reserve to both air and water, any fill materials placed within the Don Lucas Reserve shall comprise natural crushed sandstone only, with minimal clays and fines.

52. Green and Golden Bell Frog Habitat

To provide suitable habitat for the Green and Golden Bell Frog as required by the Office of Environment and Heritage, the wetland augmentation works shall incorporate habitat features suitable for the Green and Golden Bell Frog.

53. Interlot Drainage Lines

Interlot drainage lines shall be constructed to service all future allotments which are not capable of being drained by gravity means within the natural catchment of the site. These drainage lines shall be connected to a drainage system within a public road or pipeline within an existing drainage easement. Further filling of any part of the site to redirect the stormwater is not permitted without the consent of Council.

Landscaping Requirements

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

54. Street Planting

Provide street tree planting with a minimum pot size of 25 litres and a temporary tree guard in a mulched and edged landscape area within the road reserve in accordance with the detailed landscape plan and details as approved by Council as per conditions of consent. The trees shall be maintained until they reach a diameter of 100mm measured at 500mm above ground level or for two (2) years after dedication to Council, whichever comes first.

55. Landscape Treatment of Infiltration Basin

The stormwater infiltration basin shall be densely planted and suitably mulched to augment the future landscape character of the site. The mulch shall be stabilised with a biodegradable material. The planting shall not materially reduce the volume of the stormwater infiltration channel required by this development and the plantings shall be as per the VMP prepared and approved by Council as prescribed conditions of consent.

56. Tree Retention and Protection

Any trees specifically identified in the detailed landscape plan (as per condition of consent) as an “existing tree to be retained” which are potentially affected by the proposed works shall be retained and protected by the following measures:

- a) Protective fencing constructed of 1.8m high chain wire mesh supported by robust posts shall be installed around the trees referenced above to the two areas marked on the approved tree protection plan, to the satisfaction of, a suitably qualified and experienced Arborist.
- b) This fencing shall be installed prior to the commencement of any works subject to this consent and remain in place until all works are completed. Signage shall be erected on the fence with the following words clearly displayed “TREE PROTECTION ZONE, DO NOT ENTER”.
- c) The tree protection zone within the protective fencing shall be mulched with a maximum depth 75mm of suitable organic mulch (woodchips or composted leaf chip mulch) and kept regularly watered for the duration of the works subject to this consent.
- d) No development or associated activity is permitted within the fenced tree protection zone for the duration of works subject to this consent. This includes vehicular or pedestrian access, sheds, washout areas, excavations, backfilling, installation of services (including stormwater), removal of top soil, stockpiling of soil or building materials.
- e) Any approved works within this tree protection zone shall be under the direction of, and to the satisfaction of, a suitably qualified and experienced Arborist.

57. Planting of Don Lucas Reserve

Planting within the Don Lucas Reserve as detailed in the approved Vegetation Management Plan as per condition of this consent, shall commence within one (1) month of the issue of a Site Audit Statement validating any remediated areas adjacent to the Reserve.

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.

58. Works As Executed Information

Certification shall be provided from a registered surveyor 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.
- c) All rights-of-way or positive covenants required by conditions of this development consent have been provided.

59. Works As Executed Drawings

Certification shall be provided from the supervising engineer to the effect that:

- a) All civil engineering 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 system for the proposed development has been carried out generally in accordance with the requirements of the approved stormwater drainage plans and 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 as required by Council's "Specification for Civil Works Associated with Subdivisions and Developments" shall accompany any application for a Compliance Certificate.

60. Statutory Site Audit Statement

Within four (4) weeks of completion of all remediation works and site validation of remediated areas, the applicant shall request the Accredited Site Auditor to issue a Site Audit Statement. A copy of the Site Audit Statement issued by the Accredited Site Auditor shall be provided to the Principle Certifying Authority and the Council within 7 days of receipt from the Auditor.

61. Certification - Ground Lines

Certification shall be provided by a registered surveyor upon completion of the bulk earthworks stage of the development verifying that the ground lines of the site as indicated on the proposed contour plan that accompanied the development application, have been filled and graded to the correct approved levels in accordance with the terms of this development consent.

62. General Compliance

On completion of all works, the Principal Certifying Authority shall issue a Compliance Certificate certifying that all works have been completed and comply with the approved plans, conditions and specifications.

63. Works in Roadway

A Compliance Certificate from an Accredited Certifier certifying that all works undertaken within the existing and future road reserves have been completed in accordance with the conditions of the Road Opening Approval and the approved design plans.

64. Completion of Landscaping

Certification shall be provided from a suitably qualified and experienced Landscape Designer or Landscape Architect within three (3) months after the issue of the

Compliance Certificate relating to the completion of the landscaping works. 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.

65. Completion of Vegetation Management

Certification shall be provided from a suitably qualified and experienced Bush Regenerator / Horticulturalist within three (3) months after the issue of the Compliance Certificate relating to the completion of the landscaping works within each of the bush regeneration areas as defined in the approved Vegetation Management Plan (VMP). This Certification shall verify that the establishment phase of the vegetation management works have been completed in accordance with the VMP and relevant conditions of this consent.

Regular Monitoring reports shall be submitted to the Director - Environmental Services - Sutherland Shire Council certifying that the required maintenance works are being carried out in accordance with the approved VMP.

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.

66. Stormwater Treatment

Certification shall be provided from an Accredited Certifier prior to the issue of the Compliance Certificate relating to the completion of the stormwater works verifying that the stormwater treatment measure and positive covenant have been implemented in accordance with the requirements of this consent.

67. Final Site Inspection

Prior to the issue of the Compliance Certificate, a final site inspection relating to the public area shall be arranged by the applicant, and shall be undertaken by the applicant's Supervising Engineer and Council's Civil Assets Engineer. 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

END OF DETERMINATION



All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Headquarters
Locked Bag 17
Granville NSW 2142

Telephone: 1300 NSW RFS
e-mail: csc@rfs.nsw.gov.au

Facsimile: 8741 5433

The General Manager
Sutherland Shire Council
Locked Bag 17
Sutherland NSW 1499

- 3 AUG 2012
ABI

Your Ref: DA12/0476
Our Ref: D12/1485
DA12070483961 MS

ATTENTION: Annette Birchall

3 August 2012

Dear Sir/Madam

**Integrated Development for 15r Bate Bay Road & 452 Captain Cook Drive
Greenhills Beach & 405-417 Captain Cook Drive & 31 Lindum Road Kurnell**

I refer to your letter dated 2 July 2012 seeking general terms of approval for the above Integrated Development in accordance with Section 91 of the 'Environmental Planning and Assessment Act 1979'.

This response is to be deemed a bush fire safety authority as required under section 100B of the 'Rural Fires Act 1997' and is issued subject to the following numbered conditions:

Asset Protection Zones

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

1. A 10 metre asset protection zone (APZ) is to be provided from the eastern boundary within Lot(s) 146-152 of proposed of the development. In accordance with section 88B of the 'Conveyancing Act 1919' a restriction to the land use shall be placed on these lots requiring the provision of this APZ which shall be maintained as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'. This restriction can be extinguished if the hazard is removed as part of the proposal.

Water and Utilities

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

2. Water, electricity and gas are to comply with section 4.1.3 of 'Planning for Bush Fire Protection 2006'.

Access

The intent of measures for public roads is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

3. Public road access shall comply with section 4.1.3 (1) of 'Planning for Bush Fire Protection 2006'.

General Advice – consent authority to note

This approval is for the subdivision of the land only. Any further development application for class 1,2 & 3 buildings as identified by the 'Building Code of Australia' must be subject to separate application under section 79BA of the EP & A Act and address the requirements of 'Planning for Bush Fire Protection 2006'.

For any queries regarding this correspondence please contact Merryn Spray on 1300 NSW RFS.

Yours sincerely



Nika Fomin

Team Leader Development Assessment

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

ATTACHMENT A

GENERAL TERMS OF APPROVAL

The following are General Terms of Approval (GTA) conditions which would be included in an Environment Protection Licence (EPL) if Development Consent (DC) is granted.

1. ADMINISTRATIVE CONDITIONS

Information supplied to the EPA

- 1.1 Except as expressly provided by these GTA, works and activities must be carried out in accordance with the proposal contained in:
- a) the development application DA No 12/0476 received by the EPA on 16 August 2012
 - b) Statement of Environmental Effects titled Shearwater Landing Greenhills Beach Staged Residential Subdivision dated May 2012 relating to the development; and
 - c) all additional documents supplied to the EPA in relation to the development.

2. Fit and Proper Person

- 2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the *POEO Act 1997* having regard to the matters in Section 83 of that Act.

3. What the EPL authorises and regulates

- 3.1 If consent is granted the Environment Protection Licence (EPL) when issued would permit the carrying out of the following scheduled activities listed below at the premises specified in Condition 4.

Scheduled Activity
Contaminated Soil Treatment

4. Premises Identification

- 4.1 Section 56 of the *POEO Act 1997* states: The premises so specified are to be the whole of the premises at which the activities authorised or controlled by the licence (and ancillary activities) are carried on. Premises may be so specified whether or not they comprise a single allotment of land.

Note: The information provided with the application for an EPL must be in the form of official documentation such as a copy of the development consent, lease agreement or a rates notice. A map titled "Premises Covered by EPL" defining premises by shaded areas can accompany the description which is submitted with the application for EPL. The map must be clear in terms of where responsibility of the proponent starts and finishes, including structures, roadways etc.

2. Discharges to air and water and applications to land

Information supplied with the application for EPL will be used to inform any monitoring and/or the setting of limits for air, water and noise emissions from any point at the premises.

3. Limit Conditions

Pollution of waters

- 3.1 Except as may be expressly in the EPL the proponent must comply with Section 120 of the *POEO Act 1997* and must not pollute waters.

Note: Water limit conditions may be placed on the EPL based on information supplied with the EPL Application.

Potentially offensive odour

- 3.2** The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Note: Section 129 of the POEO Act 1997 provides that the proponent must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

4. Operating Conditions

Activities must be carried out in a competent manner

- 4.1** Activities at the premises must be carried out in a competent manner. This includes:
- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

- 4.2** All plant and equipment installed at the premises or used in connection with activities at the premises:
- a) must be maintained in a proper and efficient condition; and
 - b) must be operated in a proper and efficient manner.

Stormwater Management Plan

- 4.3** The proponent must develop and implement a stormwater management plan (SMP) for the premises prior to the commencement of works. The plan must be prepared by a suitably qualified person. The plan must include but not necessarily be limited to the following:
- a) the identification of measures to separate stormwater and contaminated stormwater
 - b) options to minimise the generation of contaminated stormwater
 - c) details of stormwater management at the site in accordance with the Landcom Managing Urban Stormwater Soils and Construction Vol 1
 - d) details of contaminated stormwater management at the site. Contaminated stormwater must be collected and managed in a manner that does not cause pollution of surface or ground waters
 - e) details of stormwater and contaminated stormwater monitoring programs including frequency and parameters to be measured; and
 - f) details of any contingency measures for the management of collected stormwater and contaminated stormwater if monitoring reveals unacceptable levels of pollutants that may cause water pollution.

The plan must be developed in consultation with the EPA. A copy of this SMP must be included as supporting information for an EPL Application. Information from this SMP will inform whether any additional requirements on the EPL will be required.

Note: For the purpose of this condition "Contaminated Stormwater" are those waters that come in contact with exposed areas of contaminated soils.

Dust

- 4.3** Any activities occurring on the premises must be carried out in a manner that will minimise or prevent dust emissions from the site, including wind-blown and traffic-generated dust.
- 4.4** The proponent must ensure that trafficable routes and areas are clearly defined and stabilised.

- 4.5 The proponent must ensure that the loads of all trucks leaving the site are securely fixed and covered.
- 4.6 The proponent must ensure that all vehicles leaving the site pass through a wheel-wash facility.

Onsite Treatment of Fill Material

- 4.7 All stockpiling, sorting and screening of the fill material must be undertaken in a fully enclosed building designed, operated and maintained to ensure activities are not carried out in an unacceptable manner.

Note: The only external stockpiling of material permitted on the premises is clean validated soil.

Air Quality Management Plan

- 4.8 The proponent must prepare and implement an Air Quality Management Plan for the project prior to any works commencing at the site. The plan must be prepared by a suitably qualified person. The plan must include but not necessarily be limited to:
- a) the best practice air quality management measures that will be implemented at the site to prevent any dust or air quality issues that includes but not limited to the following:
 - i) staging of activities at the site to reduce exposed areas
 - contingency measures to manage any odorous materials uncovered during excavation works
 - ii) operate at all times when weather conditions are conducive to dust generation are present or are predicted, including at times outside normal working hours when the premises may be unattended, on weekends or holidays
 - iii) operate so that performance of any system is not compromised as a result of varying heights of stockpiles
 - iv) operate so that the performance of the dust suppression system is not compromised as a result of varying wind speeds and low humidity
 - v) be integrated with a fully automated high wind early warning management system
 - vi) operate so that there is adequate water supply for dust suppression
 - vii) maintained in a condition that minimises wind blown dust emissions from all sealed and unsealed surfaces intended to carry vehicular traffic; and
 - viii) revegetation and stabilisation strategies of exposed areas of the site.
 - b) the measures that would be implemented to ensure compliance with all relevant air quality goals
 - c) monitoring methods, location and reporting requirements; and
 - d) a real-time Air Quality Management System (AQMS) that employs both reactive and proactive mitigation measures linked to an onsite meteorological weather station to evaluate the performance of the project. It must also include a protocol for determining and managing any exceedances of all relevant air quality goals and compliance with any conditions of licence; and
 - e) procedures for ongoing review of the effectiveness of the monitoring strategies, AQMS and air quality management measures.

The plan must be developed in consultation with the EPA. A copy of this plan must be included as supporting information for an EPL Application. Information from this plan will inform whether any additional requirements on the EPL will be required.

Construction Noise Management Plan

- 4.9 The proponent must prepare and implement a detailed Construction Noise Management Plan (CNMP) prior to commencement of construction activities that includes but is not necessarily limited to:
- a) identification of each work area, site compound and access route located to minimise noise impact on potentially affected sensitive receivers

- b) identification of construction work times developed in consultation with the School and other potentially affected sensitive receivers, including scheduling of activities across the site to minimise noise impact
- c) identification of the specific activities that will be carried out and associated noise sources at the premises and access routes
- d) identification of all potentially affected sensitive receivers
- e) the construction noise and vibration objectives identified in accordance with the *NSW Interim Construction Noise Guideline and Assessing Vibration: A Technical Guideline*
- f) assessment of potential noise and vibration from the proposed construction methods (including noise from construction traffic) against the objectives identified in (e)
- g) where the objectives are predicted to be exceeded an analysis of feasible and reasonable noise mitigation measures that can be implemented to reduce construction noise impacts.
- h) description of management methods and procedures and specific noise mitigation treatments that will be implemented to control noise and vibration during construction, including the early erection of noise control barriers
- i) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity
- j) measures to monitor noise performance and respond to complaints

The plan must be developed in consultation with the EPA. A copy of this plan must be included as supporting information for an EPL Application. Information from this plan will inform whether any additional requirements on the EPL will be required.

Waste management

- 4.10** All waste (both excavated and from on-site demolition works) must be removed from the site, except soil, concrete, brick and tile waste that:
 - a) does not contain asbestos; and
 - b) can be reinstated in accordance with the Remediation Action Plan and to the approval of the Accredited Site Auditor.
- 4.11** The proponent must ensure that all waste generated is assessed and classified in accordance with the *Waste Classification Guidelines, Department of Environment Climate Change and Water, 2009*. The proponent must ensure that the waste is transported to a facility that can lawfully receive the waste.
- 4.12** The proponent must ensure that all excavated waste containing organic material is removed from the site within 72 hours of excavation.
- 4.13** The proponent must ensure that asbestos contaminated waste is handled in accordance with the requirements in Clause 42 of the POEO (Waste) Regulation 2005.

Environmental Management

- 4.15** The proponent must ensure activities are not carried out at the site in an environmentally unsatisfactory manner.

Note: "Environmentally unsatisfactory manner" is defined in Section 95 of the POEO Act. That is an activity is carried on in an environmentally unsatisfactory manner if:

- (a) *it is carried on in contravention of, or in a manner that is likely to lead to a contravention of, the POEO Act and its regulations or a condition attached to an environment protection licence (including a condition of a surrender of a licence) or an exemption given under this Act or the regulations, or*
- (b) *it causes, or is likely to cause, a pollution incident, or*
- (c) *it is not carried on by such practicable means as may be necessary to prevent, control or minimise pollution, the emission of any noise or the generation of waste, or*
- (d) *it is not carried on in accordance with good environmental practice.*

Environmental Management Systems

- 4.16** The proponent must develop and implement an environmental management system for the site prior to undertaking any works at the premises that addresses the following matters. These include but not necessarily limited to the following:

- a) Contingency plan to manage any unintended or unpredicted impacts
- b) Measures to address any environmental emergencies
- c) Awareness training of employees and contractors of their environmental obligations
- d) Communication strategies that involves reporting of any incidents and outcomes of monitoring to appropriate regulatory authorities (ARA) and the local community
- e) Compliance strategies to conditions and management plan requirements are being satisfied; and
- f) Complaint handling systems that provides a 24 hour contact for the community and ARAs.

Emergency response

- 4.17** The proponent must maintain, develop and implement an Emergency Response Plan (EMR) for the premises. The proponent must keep the EMR on the premises at all times. The EMR must document systems and procedures to deal with all types of incidents (for example, spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

5 Monitoring and Recording Conditions

Monitoring records

- 5.1** The results of any monitoring required to be conducted by these GTA must be recorded and retained as set out in this condition.
- 5.2** All records required to be kept by these GTA must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least four years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- 5.3** The following records must be kept in respect of any samples required to be collected for the purposes of these GTA:
- a) the date(s) on which the sample was taken
 - b) the time(s) at which the sample was collected
 - c) the point at which the sample was taken; and
 - d) the name of the person who collected the sample.

On-site Meteorological Weather Station

- 5.4** The proponent must install a real time meteorological weather station prior to the commencement of any works at the site. The weather station must be established and maintained on site so as to be capable of continuously monitoring the parameters specified in the table below.

Parameter	Units of measure	Averaging Period	Frequency	Method ¹
Wind Speed @ 10 m	m/s	15 minutes	Continuous	AM-2 & AM-4
Wind Direction @ 10 m	Degrees	15 minutes	Continuous	AM-2 & AM-4
Sigma Theta @ 10 m	Degrees	15 minutes	Continuous	AM-2 & AM-4
Temperature @ 2 m	Degrees C	15 minutes	Continuous	AM-2 & AM-4
Temperature @ 10 m	Degrees C	15 minutes	Continuous	AM-4
Solar Radiation	W/m ²	15 minutes	Continuous	AM-4
Rainfall	mm	1 hour	Continuous	AM-4
Siting	NA	NA	NA	AM-2 & AM-4

Note 1: NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales

Asbestos Monitoring Program

- 5.5** The proponent must develop and implement an Asbestos Monitoring Program prior to any works commencing on the site. This program must be prepared by a qualified hygienist or other suitably qualified professional. The plan must include details of the ambient monitoring to be conducted over the duration of the project. The plan must detail the type, location and frequency of monitoring to be undertaken, trigger levels and trigger level actions and notification protocols. This plan must be developed in consultation with NSW Health and WorkCover.

A copy of this plan must be included as supporting information for an EPL Application. Information from this plan will inform whether any additional requirements on the EPL will be required.

Requirement to monitor concentration of pollutants discharged

- 5.6** Requirements for monitoring of pollutants discharged from the premises may be specified based on information provided with the application for EPL.

Recording of pollution complaints

- 5.7** The proponent must keep a legible record of all complaints made to the proponent or any employee or agent of the proponent in relation to pollution arising from any activity to which the EPL applies.

- 5.8** The record must include details of the following:

- a) the date and time of the complaint
- b) the method by which the complaint was made
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
- d) the nature of the complaint
- e) the action taken by the proponent in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the proponent, the reasons why no action was taken.

- 5.9** The record of a complaint must be kept for at least four years after the complaint was made.

- 5.10** The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

- 5.11** The proponent must operate during its operating hours, a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the Premises or by the vehicle or mobile plant, unless otherwise specified in the EPL.

- 5.12** The proponent must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

6 Reporting Conditions

Annual return documents

- 6.1** The proponent must complete and supply to the EPA an Annual Return in the approved form comprising:

- a) a Statement of Compliance; and
- b) a Monitoring and Complaints Summary.

At the end of each reporting period, the EPA will provide to the proponent a copy of the form that must be completed and returned to the EPA.

- 6.2** An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of the EPL. Do not complete the Annual Return until after the end of the reporting period.

- 6.3** Where the EPL is transferred from the proponent to a new licensee:
- a) the transferring body must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
 - b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.
- Note: An application to transfer a licence must be made in the approved form for this purpose.
- 6.4** Where this licence is surrendered by the proponent or revoked by the EPA or Minister, the proponent must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
 - b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.
- 6.5** The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').
- 6.6** The proponent must retain a copy of the Annual Return supplied to the EPA for a period of at least four years after the Annual Return was due to be supplied to the EPA.
- 6.7** Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
- a) the licence holder; or
 - b) by a person approved in writing by the EPA to sign on behalf of the licence holder.
- 6.8** A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.
- 7 Notification of environmental harm**
- 7.1** Notifications must be made by telephoning the Environment Line service on 131 555.
- 7.2** The proponent must provide written details of the notification to the EPA within seven days of the date on which the incident occurred.
- Note: The proponent or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the POEO Act 1997.
- 8. Written report**
- 8.1** Where an authorised officer of the EPA suspects on reasonable grounds that:
- a) an event has occurred at the premises; or
 - b) with respect to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by the EPL, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the EPL applies), the authorised officer may request a written report of the event.
- 8.2** The proponent must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- 8.3** The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event
- b) the type, volume and concentration of every pollutant discharged as a result of the event
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event
- d) the name, address and business hours telephone number of every other person (of whom the proponent is aware) who witnessed the event, unless the proponent has been unable to obtain that information after making reasonable effort
- e) action taken by the proponent in relation to the event, including any follow-up contact with any complainants
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

8.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the proponent. The proponent must provide such further details to the EPA within the time specified in the request.

9 General Conditions

Copy of licence kept at the premises or plant

9.1 A copy of the EPL must be kept at the premises to which the EPL applies.

9.2 The EPL must be produced to any authorised officer of the EPA who asks to see it.

9.3 The EPL must be available for inspection by any employee or agent of the proponent working at the premises.



Annette Birchall
Environmental Assessment Officer - Planner
Sutherland Shire Council
Locked Bag 17
Sutherland NSW 1499

Contact Greg Russell
Phone (02) 8838 7804
Mobile
Fax (02) 8838 7852
Email greg.russell@water.nsw.gov.au

Our ref
Your ref DA12/0476

Dear Annette


Referral of the Development Application for 15R Bate Bay Road and 452 Captain Cook Drive, Greenhills Beach, 405-417 Captain Cook Drive and 31 Lindum Road, Kurnell

Thank you for your referral concerning DA12/0476, requesting the requirements of NSW Office of Water for the subject properties in accordance with Clause 25 of *State Environmental Planning Policy (Kurnell Peninsula) 1989*.

Aspects of the project identified within the Development Application documents are deemed to be aquifer interference activities in accordance with the definition in the *Water Management Act 2000*. These activities require an approval in accordance with Section 91 of the *Environmental Planning and Assessment Act 1979*. However, until such time as the aquifer interference approvals provisions of that Act are commenced, such activities may require a licence under Part 5 of the *Water Act 1912*. On the basis of the information provided, the Office of Water considers such an authorisation is warranted. The Office of Water has therefore provided terms and conditions of approval in accordance with Clause 25 of *State Environmental Planning Policy (Kurnell Peninsula) 1989*, as well as Section 91 of the *Environmental Planning and Assessment Act 1979*.

It is expected that the excavation and construction at the property will be conducted in accordance with the principles of the Aquifer Interference Policy (available on-line at <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>). It is also expected that the establishment and ongoing operation of any recharge structures will be conducted in accordance with the principles of that policy, as well as those of the NSW State Groundwater Policies (available on-line at: <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>).

Yours sincerely


Greg Russell
Regional Hydrogeologist
15 February 2013

TERMS AND CONDITIONS OF APPROVAL

General

1. Approval subject to these terms and conditions is for the establishment of groundwater recharge works as part of residential subdivision development at 15R Bate Bay Road and 452 Captain Cook Drive, Greenhills Beach, 405-417 Captain Cook Drive and 31 Lindum Road, Kurnell, and on neighbouring land, but not for any other purpose.

Reason: To identify the location and type of development for which approval has been considered.

2. Excavation and construction methods as well as materials used in and for construction shall not cause pollution of the groundwater system.

Reason: To protect groundwater quality.

Prior to commencement of development works

3. A copy of valid development consent for the project shall be provided to the Office of Water.

Reason: To identify appropriate consent authority consideration of the project.

4. A detailed hydrogeological report demonstrating that the proposed recharge schemes are in strict compliance with the *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 2) 2009: Managed Aquifer Recharge* shall be provided to the Office of Water.

Reason: To identify compliance with National Guidelines directly relevant to the activity for which approval has been sought.

5. A monitoring bore network shall be established to the satisfaction of the Office of Water for the ongoing measurement of groundwater levels and quality across the site and in the vicinity of the Council wetland.

Reason: To enable baseline monitoring of groundwater levels and quality.

6. A baseline groundwater monitoring plan to the satisfaction of the Office of Water shall be designed and commenced that includes measurement of groundwater levels on a daily basis and water quality sampling and analysis on a weekly basis from the installed monitoring bore network.

Reason: To identify the baseline groundwater conditions beneath the proposed recharge locations before works commence.

Prior to development excavation

7. An authorisation shall be obtained from the Office of Water for the groundwater recharge works on the site.

Reason: To authorise the use of the works.

8. If required by the Office of Water, an authorisation shall be obtained from the Office of Water for the modifications to the Council wetland on neighbouring land that has been identified as being within the scope of the development.

Reason: To authorise the use of the works.

9. A detailed hydrogeological assessment of the proposed construction, operation, maintenance and monitoring of the groundwater recharge works on-site and the modified Council wetland on neighbouring land, as well as the predicted impacts on the groundwater system in the vicinity of both structures, shall be provided to the Office of Water in support of the application for the authorisation(s).

Reason: To identify the long-term monitoring and maintenance requirements of the works.

During development excavation and construction

10. Access to groundwater monitoring and water management works included in the scope of the development is to be provided to authorised officers to permit inspection as required by the Office of Water under appropriate safety precautions.

Reason: To enable auditing of the conditions of the authorisation.

11. Notification of any decommissioned monitoring bores shall be provided to the Office of Water in writing within 5 working days of their deactivation or removal.

Reason: To enable auditing of the conditions of the authorisation.

Following development construction

12. An operational monitoring bore network shall be maintained to the satisfaction of the Office of Water that includes selected bores from the pre-construction layout and that has the specific objectives of identifying changes in groundwater levels and quality as a result of the development works as well as the potential for off-site impacts.

Reason: To enable targetted ongoing monitoring of groundwater levels and quality.

13. Where the number and location of monitoring bores remaining from the pre-construction layout are not considered adequate for the identified objectives, the Office of Water will require the installation or reinstatement of additional monitoring works.

Reason: To address any deficiencies in the monitoring network as a result of the development activity and throughout the life of the development.

14. An operational groundwater monitoring plan to the satisfaction of the Office of Water shall be designed and commenced that includes measurement of groundwater levels and water quality sampling and analysis on an agreed basis from the monitoring bore network.

Reason: To maintain records of groundwater levels and quality for the life of the development.

15. A groundwater impact response plan shall be prepared to the satisfaction of the Office of Water within 12 months following completion of development construction that shall include:

- a. Water quality parameters and their respective concentration levels that shall be used to trigger remedial action.
- b. Water level trigger elevations in sentinel monitoring bores that shall be used to indicate impairment of the function of the recharge structures and impacts on the groundwater system that require response actions.
- c. A response strategy to address any exceedances of the nominated trigger levels.
- d. Annual reporting arrangements for compliance purposes.

Reason: To identify and mitigate unforeseen adverse environmental impacts throughout the life of the development.

16. The groundwater impact response plan shall be modified if the incidence and duration of exceedances relating to water quality or groundwater level are considered by the Office of Water to be unacceptable for the ongoing protection of the groundwater system.

Reason: To improve environmental management throughout the life of the development.

END OF TERMS AND CONDITIONS OF APPROVAL



Contact: Stuart Read
Telephone: 9873 8554
Email: stuart.read@heritage.nsw.gov.au
A no.: 947496; 1042314
HOD no.: 5051207
File: 10/7771
Your reference DA12/0476

Mr. John Rayner
General Manager
Sutherland Shire Council
DX 4511 Sutherland

Attention: Ms Annette Birchall



Dear Mr. Rayner,

INTEGRATED DEVELOPMENT APPLICATION: NSW HERITAGE COUNCIL GENERAL TERMS OF APPROVAL

RE: CRONULLA SAND DUNE AND WANDA BEACH COASTAL LANDSCAPE – STATE HERITAGE REGISTER ITEM NO. 1664, CAPTAIN COOK DRIVE, CRONULLA

Proposal: 15R Bate Bay Road and 452 Captain Cook Drive, Greenhills Beach and 405-417 Captain Cook Drive & 31 Lindum Road, Kurnell – Shearwater Landing - Staged development – Conceptual Master Plan layout of 161 residential lots, remediation and bulk earthworks; Stage 1: including initial development of 3 of the existing lots into 6 super lots, vegetation removal, site remediation, bulk earthworks, construct associated road and infrastructure, augment existing wetland, basin storm water treatment facility, landscaping and (if required) install passive gas venting system on part of Don Lucas Reserve
IDA Application No. 12/IDA/37 referred to the NSW Heritage Council on 6/7/2012

Information received with the IDA application: Drawings:

- 600201-3006 Proposed subdivision layout, revision 1, 28/2/12
- 600201-3002 Extent of development, revision 5, dated 21/6/2012;
- 600201-3003 Development plan, revision 4, dated 25/5/2012;
- 600201-3006 Master plan, revision 4, dated 25/5/2012;
- 600201-3007 Overall concept layout, revision 1;
- 600201-3008 Stage one works, revision 1
- The latter two drawings dated 21/6/2012;
- 600201-3009 Subdivision plan – stage 1;
- 600201-3010 Subdivision plan – stage 2;
- 600201-3011-3013 Stage 1 & 2 general arrangement plans – sheets 1-3 of 3;
- 600201-3014 Stage 2C general arrangement plan, sheet 1 of 1;
- 600201-3015-3016 Typical cross sections – sheets 1-2 of 2;
- 600201-3017 Details sheet;
- 600201-3020-3021 Longitudinal sections – road 1 sheets 1-2 of 2;
- 600201-3022 Longitudinal sections – road 2;
- 600201-3023 Longitudinal sections – roads 3, 4 & 5;
- 600201-3030 Overall concept storm water catchment plan;
- 600201-3035 Wetland basin detail;
- 600201-3037 Typical sections – wetland basin;
- 600201-3040 Concept water & sewer design;
- 600201-3050 Concept erosion & sediment control plan;

FILE LOCATION
AB1

600201-3055 Concept electrical reticulation design;
600201-3060 Cut/Fill plan;
600201-3065-3066 Site sections – 1-2 of 2;
The latter 22 drawings are all revision 3, dated 28/5/2012;
All of the above drawings prepared by Cardno P/L;
Drawing 2807021/4 Plan of subdivision (stages 1A, 1B, 2A, 2B & 2C) of Lot C in DP 370539, Lot 116 in DP 777967 & Lot 22 in DP 226424, issue 1, prepared by Cooper & Richards Surveyors – Simon Andrew Geest, dated 2/4/2012;
Statement of Environmental Effects, prepared by JBA Planning, dated 5/2012;
Remediation Action plan: on-site containment of fill material and removal of copper slag, Breen Holdings Site, Bate Bay Road, Cronulla, prepared by Consulting Earth Scientists, dated 11/5/2010;
DA Cost Plan No. 4, Bate Bay Road Subdivision stages 1 & 2, prepared by Barry Hodge, dated 1/5/2012;
Environmental Site assessment: parcel of Lucas Reserve, off Bate Bay Road, Greenhills Beach, prepared by Consulting Earth Scientists, dated 23/5/2012;
Sampling, Analysis & Quality Plan Environmental assessment, parcel of Lucas Reserve, off Bate Bay Road, Cronulla, revision 1.0, prepared by Consulting Earth Scientists, dated 23/12/2010;
Proposed Subdivision – Captain Cook Drive, Kurnell, Preliminary Road Traffic Noise Impact Assessment, prepared by SLR Consulting, dated 2/5/2012;

Additional information requested: yes

Date additional information received: 10/8/2012;

Date public submissions received: 21/8/2012

As delegate of the NSW Heritage Council, I have considered the above integrated development application. In accordance with Section 91A of the *Environmental Planning and Assessment Act 1979*, the NSW Heritage Council informs Sutherland Shire Council that the following terms of approval are proposed to be granted.

That the Heritage Council grant the following general terms of approval:

1. Works shall be in accordance with the following documents:

Drawings:

600201-3006 proposed subdivision layout, revision 1, 28/2/12
600201-3002 Extent of development, revision 5, dated 21/6/2012;
600201-3003 Development plan, revision 4, dated 25/5/2012;
600201-3006 Master plan, revision 4, dated 25/5/2012;
600201-3007 Overall concept layout, revision 1;
600201-3008 Stage one works, revision 1
The two previous drawings dated 21/6/2012;
600201-3009 Subdivision plan – stage 1;
600201-3010 Subdivision plan – stage 2;
600201-3011-3013 Stage 1 & 2 general arrangement plans – sheets 1-3 of 3;
600201-3014 Stage 2C general arrangement plan, sheet 1 of 1;
600201-3015-3016 Typical cross sections – sheets 1-2 of 2;
600201-3017 Details sheet;
600201-3020-3021 Longitudinal sections – road 1 sheets 1-2 of 2;
600201-3022 Longitudinal sections – road 2;
600201-3023 Longitudinal sections – roads 3, 4 & 5;
600201-3030 Overall concept storm water catchment plan;
600201-3035 Wetland basin detail;
600201-3037 Typical sections – wetland basin;
600201-3040 Concept water & sewer design;
600201-3050 Concept erosion & sediment control plan;
600201-3055 Concept electrical reticulation design;
600201-3060 Cut/Fill plan;
600201-3065-3066 Site sections – 1-2 of 2;

The latter 22 drawings are all revision 3, dated 28/5/2012;
All of the above drawings prepared by Cardno P/L;
Drawing 2807021/4 Plan of subdivision (stages 1A, 1B, 2A, 2B & 2C) of Lot C in DP 370539,
Lot 116 in DP 777967 & Lot 22 in DP 226424, issue 1, prepared by Cooper & Richards
Surveyors – Simon Andrew Geest, dated 2/4/2012;
Statement of Environmental Effects, prepared by JBA Planning, dated 5/2012;
Remediation Action plan: on-site containment of fill material and removal of copper slag,
Breen Holdings Site, Bate Bay Road, Cronulla, prepared by Consulting Earth Scientists,
dated 11/5/2010;
DA Cost Plan No. 4, Bate Bay Road Subdivision stages 1 & 2, prepared by Barry Hodge,
dated 1/5/2012;
Environmental Site assessment: parcel of Lucas Reserve, off Bate Bay Road, Greenhills
Beach, prepared by Consulting Earth Scientists, dated 23/5/2012;
Sampling, Analysis & Quality Plan Environmental assessment, parcel of Lucas Reserve, off
Bate Bay Road, Cronulla, revision 1.0, prepared by Consulting Earth Scientists, dated
23/12/2010;
Proposed Subdivision – Captain Cook Drive, Kurnell, Preliminary Road Traffic Noise Impact
Assessment, prepared by SLR Consulting, dated 2/5/2012,
Except as amended by the following:

2. **The recommendations (pages 31-33) of the report – Shearwater Landing, Bate Bay Road Kurnell Peninsula – Proposed Subdivision – Greenhills Beach - Aboriginal Archaeological Assessment and European Heritage Review & Statement of Heritage Impact, prepared by Mary Dallas Consulting Archaeologists, dated March 2012 shall be included as conditions of consent;**
3. **Three copies of the archival photographic recording required of the processing works near the high school shall be provided to the Heritage Council of NSW for its library, Sutherland Shire Council for its file and for an appropriate public library;**
4. **An application under section 60 of the NSW Heritage Act (for the excavation proposed within the curtilage of the Cronulla Sand Dune and Wanda Beach coastal landscape NSW State Heritage Register item) and supporting information must be submitted and approved by the NSW Heritage Council or its delegate prior to work commencing.**

If you have any questions regarding the above matter please contact Stuart Read at the Heritage Branch, Office of Environment & Heritage on (02) 9873 8554.

Yours sincerely



Vincent Sicari
Manager
Conservation Team
Heritage Branch
Office of Environment & Heritage
As Delegate of the Heritage Council of NSW
September 2012



Heritage Council

 of New South Wales

3 Marist Place
 Parramatta NSW 2150

Locked Bag 5020
 Parramatta NSW 2124
 DX 8225 PARRAMATTA

Telephone: 61 2 9873 8500
 Facsimile: 61 2 9873 8599

heritage@planning.nsw.gov.au
 www.heritage.nsw.gov.au

Contact: Stuart Read
 Telephone: 9873 8554
 Email: stuart.read@heritage.nsw.gov.au
 A no.s: 947496; 1042314
 HOD no.: 5051207
 File: 10/7771
 Your reference DA 12/0476

Mr. John Rayner
 General Manager
 Sutherland Shire Council
 DX 4511 Sutherland

Attention: Ms. Annette Birchall, Environmental Assessment Officer - Planner
 By email: abirchall@ssc.nsw.gov.au

Dear Mr. Rayner

S.96(2) REFERRAL OF A PROPOSED MODIFICATION – Cronulla Sand Dune and Wanda Beach Coastal Landscape – State Heritage Register no. 1664, Captain Cook Drive, Cronulla, Sutherland LGA

Proposal: 15R Bate Bay Road and 452 Captain Cook Drive, Greenhills Beach and 405-417 Captain Cook Drive & 31 Lindum Road, Kurnell – Shearwater Landing - Staged development – Conceptual Master Plan layout of 161 residential lots, remediation and bulk earthworks; Stage 1: including initial development of 3 of the existing lots into 6 super lots, vegetation removal, site remediation, bulk earthworks, construct associated road and infrastructure, augment existing wetland, basin storm water treatment facility, landscaping and (if required) install passive gas venting system on part of Don Lucas Reserve

Thank you for your letter and email received 11 February 2013 referring the subject application to modify development consent number DA 12/0476 to the Heritage Branch for comment under section 96(2) of the *Environmental Planning and Assessment Act*. The following comments are provided under section 96(2) (b) of the Act.

The modifications sought are described in the letter noted above and highlighted on the following drawings:

- 600201- SK 3001 – Relation between revised design contours and previous design contours, revision 2, dated 14/12/2012;
- 600201- SK 3002 – Site sections, revision 1, dated 14/12/2012;
- 600201-3003 Development plan, revision 6, dated 14/12/2012;
- 600201-3009 Subdivision plan – stage 1, revision 4 (showing revised layout lots 102, 103; deleting Lot 101, dated 18/12/2012;

All the above drawings prepared by Cardno P/L.

The Heritage Council of NSW, as an approval body for the application, has considered the proposed modification in accordance with the required matters for consideration under section 62 of the Heritage Act and considers that the proposed modification is substantially the same development as the original application. The Heritage Council raises no objection to the proposed modification of the consent and agrees to amend the general terms of its approval as described above.

[Helping the community conserve our heritage](#)



3 Marist Place
Parramatta NSW 2150

Locked Bag 5020
Parramatta NSW 2124
DX 8225 PARRAMATTA

Telephone: 61 2 9873 8500
Facsimile: 61 2 9873 8599

heritage@planning.nsw.gov.au
www.heritage.nsw.gov.au

Please contact Stuart Read on telephone (02) 9873 8554 if you require further information or wish to discuss the matter.

Yours sincerely

15/02/2013

Vincent Sicari

Manager

Conservation Team

Heritage Branch

Department of Planning

As delegate of the Heritage Council of NSW

February 2013