

Items for Consideration of Council

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Items for Consideration of Council

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Items Deferred

ITEMS DEFERRED FROM EXTRAORDINARY MEETING HELD 24 MAY 2000

1. Stage 2, 3 and 4 Development Applications - Casuarina Beach

DA1180/668 Pt5, DA1180/382 Pt3 & DA1180/385 Pt3

1636

Cr James

Cr Luff

RESOLVED that a further Extraordinary meeting of Council be held on 31 May, 2000 to deal with Development Applications for Casuarina Beach Stages 2, 3 and 4.

THIS ITEM IS THE SUBJECT OF A NEW REPORT INCLUDED IN THIS BUSINESS PAPER AGENDA

2. Dune Management Plan and Lot 500 Environmental Management Plan

GS4/96/135 Pt14

1637

Cr James

Cr Luff

RESOLVED that Council deals with the revised Dune Management Plan and Lot 500 Management Plan at an Extraordinary meeting to be held on 31 May, 2000.

THIS ITEM IS THE SUBJECT OF A NEW REPORT INCLUDED IN THIS BUSINESS PAPER AGENDA

3a. Proposed 82 Lot Subdivision at Lot 3 DP 865049 Coast Road, South Kingscliff - Casuarina Beach Stage 2

DA1180/668 Pt5

This item was dealt with earlier in the meeting at Item 1 (Minute No 1636 refers)

THIS ITEM IS THE SUBJECT OF A NEW REPORT INCLUDED IN THIS BUSINESS PAPER AGENDA

3b. Proposed 86 Lot Subdivision at Lot 3 DP 865049 and Lot 1 DP 811425 Coast Road, South Kingscliff - Casuarina Beach Stage 3

Items Deferred

DA1180/382 Pt3

This item was dealt with earlier in the meeting at Item 1 (Minute No 1636 refers)

THIS ITEM IS THE SUBJECT OF A NEW REPORT INCLUDED IN THIS BUSINESS PAPER AGENDA

- 3c. Proposed 101 Lot Subdivision at Lot 3 DP 865049 Coast Road, South Kingscliff - Casuarina Beach Stage 4**

DA1180/385 Pt3

This item was dealt with earlier in the meeting at Item 1 (Minute No 1636 refers)

THIS ITEM IS THE SUBJECT OF A NEW REPORT INCLUDED IN THIS BUSINESS PAPER AGENDA

Reports from Director Development Services

MATTERS FOR CONSIDERATION UNDER SECTION 79(C)(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The following are the matters Council is required to take into consideration under Section 79(C)(1) of the Environmental Planning and Assessment Act 1979 in assessing a development application.

MATTERS FOR CONSIDERATION

1. In determining a development application, a consent authority shall take into consideration such of the following matters as are of relevance to the development the subject of that development application:
 - (a) the provisions of
 - (i) any environmental planning instrument; and
 - (ii) any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority, and
 - (iii) any development control plan, and
 - (iv) any matters prescribed by the regulations,that apply to the land to which the development application relates,
 - (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts of the locality,
 - (c) the suitability of the site for the development,
 - (d) any submissions made in accordance with this Act or the regulations,
 - (e) the public interest.

Reports from Director Development Services

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Reports from Director Development Services

1. ORIGIN: Subdivision Unit

FILE REF: DA1180/668 Pt5

REPORT TITLE:

Proposed 82 Lot Subdivision at Lot 3 DP 865049 Coast Road, South Kingscliff - Casuarina Beach Stage 2 (DA K99/1360)

SUMMARY OF REPORT:

The application proposes the Stage 2 subdivision of the Casuarina Beach development into 82 lots. The proposal consists of conventional allotments and larger lots for tourist and commercial development which will be subject to future development applications.

This application is over Management Lots 1, 2, 12 and Parts of 3, 9 and 13 identified in the Stage 1 consent and the value of works involved is estimated at \$2.9 million.

The applicant has lodged an appeal to the Land and Environment Court based on a "deemed refusal". Therefore, it is considered that the application should now be determined based on the information at hand and given recognition of the contractual arrangements between Lenen Pty Ltd and Consolidated Properties requiring finalisation before 30 June, 2000.

On 19 May, 2000, the Department of Land and Water Conservation provided their consent to lodge the application over a section of Crown Public Road, subject to compliance with certain requirements. The application is therefore now statutorily valid and accordingly Council may determine the application.

Intensive efforts have been made over recent weeks to resolve the outstanding issues and it is now considered that the application is suitable for conditional approval, subject to the recommended conditions. Advice from the National Parks and Wildlife Service in response to a further assessment report on flora and fauna submitted on 23 May, 2000 was received on 24 May, 2000 and a copy of that letter is an annexure.

The recommended conditions below include the latest National Parks and Wildlife Service recommendations (dated 24 May, 2000) with regard to Banksia plantings.

On balance, it is considered that there is unlikely to be a significant effect on the Glossy Black Cockatoo and Marine Turtles and other fauna and therefore a Species Impact Statement is not required.

During the workshop on 24 May, 2000, the applicants consultants requested amendment and/or deletion of the following conditions: 16(iii); 27(a); 41(i), (ii) and (iii), 44(ii), (iv) and 62(d) dot point 7.

Those conditions have been reviewed by Council officers following which conditions 27(a); 44(ii) and 62(d) dot point 7 have recommended amendments.

Reports from Director Development Services

Condition 41(iii) has been amended to clarify the intent of the condition, however the remaining conditions are as originally recommended.

RECOMMENDATION:

That :-

- A. That Development Control Plan No. 11 - Kings Beach be amended to reflect condition 9.
- B. Council approves the Stage 2 development application K99/1360 submitted by Kings Beach Project (No. 2) Pty Ltd for the subdivision of Lot 3 DP 865049 Coast Road, South Kingscliff into 82 subject to the following conditions:-

PRE-REQUISITES - conditions that must be complied with prior to the release of a construction certificate

1. Prior to the issue of a Construction Certificate a Fire Management Plan is to be submitted and approved by Council. The plan shall address potential environmental impacts, including impacts on threatened species.
2. Prior to the release of the Construction Certificate details are to be submitted on the acoustic fencing and landscaping along Coast Road to the satisfaction of Council. The approved works shall be completed **PRIOR** to release of the linen plan.
3. A traffic control plan that complies with the provisions of the RTA document "Traffic Control at Work Sites" Version 2 shall be prepared by a person who is qualified, authorised and has passed an RTA approved training course, prior to issue of the Construction Certificate. The applicant shall submit evidence to Council that the traffic control plan has been prepared by an authorised person. All works are to comply with the Occupational Health and Safety Act and the RTA document and the approval particularly in respect to works on public roads. Safe public access shall be provided at all times.
4. Prior to the commencement of work the applicant shall submit to Council evidence that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared in accordance with either:-
 - a. Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or
 - b. AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
5. A detailed plan of landscaping is to be submitted and approved by Council prior to the issue of a Construction Certificate. All landscaping work is to be completed in accordance with the approved plans. The detailed landscaping plan shall include a list of species which ensure no potential for seed transfer to Lot 500 which would conflict with the propagation and maintenance of species specified in the Dune Management Plan and Lot 500 Management Plan.

Reports from Director Development Services

6. The Stage 1 linen plan required by the Stage 1 development consent S96/135 shall be registered **PRIOR** to issuing any construction certificate pursuant to this consent. The Stage 2 layout is to be consistent with the lot boundaries of open space lots 8, 9, 10, 11, 12, 13 and 14.

GENERAL

7. Prior to the issue of a Subdivision Certificate pursuant to this consent **ALL** works bonded pursuant to Consent S96/135 for Stage 1 shall be completed to the satisfaction of Council.
8. Submission of separate development applications for further development of the residue lots (lots 19, 29, 30 and 31).
9. The Architectural Design Regulations shall not be included in any legal document to be administered by Council. **NOTE:** Some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a DCP for control by Council. Accordingly, DCP 11 – Kings Beach will need to be amended to incorporate the following conditions:

- (i) The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4 metres and not less than 5 metres to the wall of a double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3 metres from the front street boundary.

- (ii) The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 675mm to the outer most projection of the eave.
- (iii) The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3 metres.
- (iv) For beachfront lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.
- (v) All fencing east of the 7(f) and 2(e) zone boundary shall be a maximum height of not more than 1.2 metres.

The above conditions (i)-(v) can be varied by Council subject to the merits of each development application.

10. The development shall be completed in general accordance with Figures E5 and E6 prepared by Cardno MBK and dated September 1999, except where varied by these conditions.

Reports from Director Development Services

11. Approval is given subject to the location of, protection of, and/or any necessary modifications to any existing public utilities situated within the subject property.
12. No soil, sand, gravel, clay or other material shall be disposed of off the site without the approval of Council.
13. Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired to the satisfaction of Council prior to the issue of a Subdivision Certificate and/or prior to any use or occupation of the buildings.
14. The subdivision is to be carried out in accordance with Development Control Plan No 16 - Subdivisions Manual.
15. A Subdivision Certificate will not be issued by the General Manager until such time as all conditions of Development Consent No K99/1360 have been complied with.
16. The creation of easements for services, rights of carriageway and restrictions as to user as may be applicable under Section 88B of the Conveyancing Act including the following:
 - i. Easements for sewer, water supply and stormwater drainage over ALL services on private property.
 - ii. A restriction as to user requiring that all roofwater from dwellings shall be discharged to an approved infiltration pit located on the subject property. The infiltration pit shall be approved by the Principal Certifying Authority.
 - iii. A restriction as to user 40m wide shall be created parallel to the southern boundary of proposed Lot 1 to provide a buffer to the adjacent Cudgen Nature Reserve.

Pursuant to Section 88BA of the Conveyancing Act (as amended) the Instrument creating the right of carriageway/easement to drain water shall make provision for maintenance of the right of carriageway/easement by the owners from time to time of the land benefited and burdened and are to share costs equally or proportionally on an equitable basis.

Any Section 88B Instrument creating restrictions as to user, rights of carriageway or easements which benefit Council shall contain a provision enabling such restrictions, easements or rights of way to be revoked, varied or modified only with the consent of Council.

17. Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742-1991 (Manual for Uniform Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.

Reports from Director Development Services

18. In pursuance of the provisions of the Disability Discrimination Act, 1992 (Commonwealth) the design of the proposed development shall facilitate access for the disabled in accordance with AS1428-1993 Parts 1 to 4 - Design for Access and Mobility.
19. Prior to the issue of a Subdivision Certificate, Council's standard "Asset Creation Form" shall be completed (including all quantities and unit rates) and submitted to Council.
20. Prior to commencement of work, a sign detailing the project and containing the names and contact numbers of the Developer, Contractor and Consulting Engineer shall be erected and maintained in a prominent position at the site to the satisfaction of Council. The sign is to remain in place until the Subdivision Certificate is issued.
21. It shall be the responsibility of the applicant to ensure that at all times the 'Optus Cable' which traverses the subject site is protected from construction damage.

The applicant must identify the location of the cable prior to the commencement of construction. The cover over the cable shall not be permanently decreased or increased without the consent of the owner of the cable.
22. All retaining walls in excess of 1.2 metres in height must be certified by a Qualified Structural Engineer verifying the structural integrity of the retaining wall after construction.
23. Any damage to property (including pavement damage) is to be rectified to the satisfaction of Council PRIOR to the issue of a Subdivision Certificate. The surrounding road carriageways are to be kept clean of any material carried onto the roadway by construction vehicles. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the issue of a Subdivision Certificate.
24. In accordance with Section 109F(i) of the Environmental Planning & Assessment Act, 1979 (as amended), a construction certificate for SUBDIVISION WORKS OR BUILDING WORKS shall NOT be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment.

Open Space

Casual Open Space

25. Management Lots 12 (proposed lot 81) and 13 in the Stage 1 consent S96/135 in so far as they relate to this Stage 2 consent are to be suitably embellished in accordance with condition 39(f) and (g) of Consent S96/135 for Stage 1 prior to the release of the linen plan for Stage 2 including:-
 - (i) removal of bitou bush and other noxious weeds

Reports from Director Development Services

- (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of Consent S96/135 for Stage 1 and good practice in this regard
 - (iii) provision of adequate and appropriate security lighting for users of Lots 12 and 13.
 - (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the Statement of Environmental Effects for Stage 1 (S96/135) as amended by the Landscape Master Plan submitted with the application.
 - (v) The land between the constructed cycleway/walkway and the Lot 500 boundary and the western boundary of proposed Lot 13 in Stage 1 shall be embellished to enable the area to be used for passive open space including picnicking to the satisfaction of Council. Existing tree cover shall be maintained to the maximum extent possible.
 - (vi) The cycleway/walkway corridor shall be landscaped and fenced in accordance with plans to be submitted and approved before work commences.
26. Dedication, at no cost, to Council, of the local parks (Lots 20 and 81). These parks are to be suitably embellished including but not limited to filling, topsoiling, grading, seeding, planting, installation of seating and play ground equipment and shade cover. Details to be submitted with the Construction Certificate application to the satisfaction of Council. The embellishment work shall be completed prior to release of the linen plan.

CONTRIBUTIONS

27. (i) Payment of the following contributions pursuant to Section 94 of the Act and the relevant Section 94 Plan.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 94 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" signed by an authorised officer of Council.

These charges will remain fixed for a period of 12 months from the date of this consent and thereafter in accordance with the rates applicable in the current version/edition of the relevant Section 94 Plan current at the time of the payment.

A copy of the Section 94 contribution plans may be inspected at the Civic and Cultural Centres, Tumbulgum Road, Murwillumbah and Brett Street, Tweed Heads.

(ii) **GST**

If GST is applicable the following shall apply.

Reports from Director Development Services

1.1 In this Clause 1:

“GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a State or Territory Parliament which is charged or levied on goods, services or other things.

1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979 (NSW)* (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.

1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979 (NSW)* (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.

1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.

1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

GST payable = The GST inclusive market price of the asset x $\frac{1}{11}$.

1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

a. Tweed Road Contribution Plan:

78 lots @ \$2394 per lot \$186,732.00

S94 Plan No. 4 (Version 4.0)

(Duranbah/Cabarita/Kings Forest Development - Residential)

Council will apply credits towards this contribution in relation to the amount that is determined as credit pursuant to condition 12(a)(i) of the Stage 1 consent No. S96/135 and Section 94 Plan No. 4

Reports from Director Development Services

(iii) Heavy Haulage Component

Payment of a contribution pursuant to Section 94 of the Act and the Heavy Haulage (Extractive materials) provisions of Tweed Road Contribution Plan No. 4 - Version 4.1 prior to the issue of a construction certificate or subdivision certificate, whichever occurs first. The contribution shall be based on the following formula:-

$$\text{\$Con}_{\text{TRCP - Heavy}} = \text{Prod.} \times \text{Dist} \times \text{\$Unit} \times (1 + \text{Admin.})$$

where:

$\text{\$Con}_{\text{TRCP - Heavy}}$ heavy haulage contribution

and:

Prod. projected demand for extractive material to be hauled to the site over life of project in tonnes

Dist. average haulage distance of product on Shire roads
(trip one way)

$\text{\$Unit}$ the unit cost attributed to maintaining a road as set out in Section 6.4 (currently 2.5c per tonne per kilometre)

Admin. Administration component - 5% - see Section 6.5

- | | | |
|----|---|-------------|
| b. | Street Trees: 78 lots @ \$42.90 per lot | \$3,346.20 |
| | S94 Plan No. 6 | |
| c. | Shirewide Library Facilities: | |
| | 78 lots @ \$300 per lot | \$23,400.00 |
| | S94 Plan No. 11 | |
| d. | Eviron Cemetery/Crematorium Facilities: | |
| | 78 lots @ \$126 per lot | \$9,828.00 |
| | S94 Plan No. 13 | |
| e. | Bus Shelters: 78 lots @ \$23 per lot | \$1,794.00 |
| | S94 Plan No. 12 | |
| f. | Emergency Facilities (Surf Lifesaving) | |
| | 78 lots @ \$80 per lot | \$6,240.00 |
| | S94 Plan No. 16 | |

Reports from Director Development Services

- g. Extensions to Council Administration Offices
& Technical Support Facilities
78 lots @ \$344.81 per lot \$26,895.18
S94 Plan No. 18
- h. Cycleways: 78 lots @ \$160 per lot \$12,480.00
S94 Plan No. 22
Contribution to be credited against cost of works in condition 48 (i).
- i. Structured Open Space: 78 lots @ \$640 per lot \$49,920.00
S94 Plan No. 19
- j. Community Facilities: 78 lots @ \$497 per lot \$38,766.00
S94 Plan No. 19
28. In addition to the normal contribution required by S94 Plan No 16 – Emergency Facilities (Surf Lifesaving) an amount of \$55 per lot shall be paid towards the cost of providing Surf Lifesaving facilities within the area between Kingscliff and Cabarita. (ie 78 lots @ \$55 per lot = \$4290).
29. A certificate of compliance (CC) under Part 3 Division 2 of the Water Supply Authorities Act 1987 is to be obtained from Council to verify that the necessary requirements for the supply of water and sewerage to the development have been made with the Tweed Shire Council.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 64 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" and a "Certificate of Compliance" signed by an authorised officer of Council.

Annexed hereto is an information sheet indicating the procedure to follow to obtain a Certificate of Compliance:

GST

If GST is applicable the following shall apply.

1.1 In this Clause 1:

"GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a

Reports from Director Development Services

State or Territory Parliament which is charged or levied on goods, services or other things.

- 1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.
- 1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.
- 1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.
- 1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

$$\text{GST payable} = \text{The GST inclusive market price of the asset} \times \frac{1}{11}.$$

- 1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

Water:	78 lots @ \$3420 per lot	\$266,760.00
Local Section 64 Water Supply Levy	78 lots @ \$205 per lot	\$15,990.00
Sewer:	78 lots @ \$2820 per lot	\$219,960.00

These charges to remain fixed for a period of twelve (12) months from the date of this consent and thereafter in accordance with the rates applicable in Council's adopted Fees and Charges current at the time of payment.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

FURTHER APPROVALS

- 30. Prior to commencement of work pursuant to this consent a Construction Certificate shall be obtained for the works proposed and required by this consent.

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The following information must accompany applications for a construction certificate for subdivision work.

(i) Subdivision Work

In the case of an application for a construction certificate for subdivision work required by this consent:

- a) copies of compliance certificates relied upon
- b) four (4) copies of detailed engineering plans and specifications. The detailed plans shall include but are not limited to the following:
 - earthworks
 - roadworks
 - road pavement
 - road furnishings
 - stormwater drainage
 - water supply works
 - sewerage works
 - landscaping works
 - sedimentation and erosion management plans
 - location of all service conduits (water, sewer, NorthPower and Telstra)
 - the approved Traffic Control Plan
 - the relevant maintenance manuals (eg. G.P.T's, water pump station)

Where the proposed subdivision work involves a modification to previously approved plans the plans must be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the modification.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

31. Subdivision work in accordance with a development consent must not be commenced until:-
 - (a) a construction certificate for the subdivision work has been issued by:
 - (i) the consent authority, or
 - (ii) an accredited certifier, and

Reports from Director Development Services

- (b) the person having the benefit of the development consent:
 - (i) has appointed a principal certifying authority, and
 - (ii) has notified the consent authority and the council (if the council is not the consent authority) of the appointment, and
 - (c) the person having the benefit of the development consent has given at least 2 days' notice to the council of the person's intention to commence the subdivision work.
32. Prior to the issue of a Construction Certificate, a cash bond or bank guarantee (unlimited in time) shall be lodged with Council for an amount of \$10,000.

The bond may be called up at any time and the funds used to rectify any non-compliance with the conditions of this consent which are not being addressed to the satisfaction of Council.

The bond will be refunded, if not expended, when the final Subdivision Certificate is issued.

33. Prior to registration of the plan of subdivision, a Subdivision Certificate shall be obtained.
- (i) The following information must accompany an application:
 - original plan of subdivision prepared by a registered surveyor and 7 copies of the original plan together with any applicable 88B Instrument and application fees of \$110 per lot - 82 lots @ \$110/lot = \$9020
 - relevant development consent or complying development certificate
 - detailed subdivision engineering plans endorsed with a construction certificate (where applicable)
 - for a deferred commencement consent evidence that the applicant has satisfied the consent authority on all matters which must be satisfied before the consent can operate
 - evidence that the applicant has complied with all conditions of consent, that it is required to comply with before a subdivision certificate can be issued (where applicable)
 - a certificate of compliance from the relevant water supply authority (where applicable)
 - if a subdivision is the subject of an order of the Land and Environment Court under section 40 of the Land and Environment Court Act 1979 evidence that required drainage easements have been acquired by the relevant council
 - for subdivision involving subdivision works evidence that:

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- the work has been completed, or
 - agreement reached with the relevant consent authority regarding payment of the cost of work or as to the time for carrying out the work, or
 - security given to the consent authority with respect to the completion of the work
 - Work as Executed Plans for ALL works
- (ii) Documentary evidence that all matters contained in Section 109J of the Act have been complied with.
- (iii) Written evidence from Council that the proposed road/street names have been approved.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

34. Prior to the application for a Subdivision Certificate a Compliance Certificate or Certificates shall be obtained from Council OR an accredited certifier for the following:-
- (i) Compliance Certificate - Roads
 - (ii) Compliance Certificate - Water Reticulation
 - (iii) Compliance Certificate - Sewerage Reticulation
 - (iv) Compliance Certificate - Sewerage Pump Station/vacuum pots
 - (v) Compliance Certificate - Drainage

Note: 1. Where Council is requested to issue compliance certificates, applications for such certificates must be accompanied by documentary evidence from the Developers Supervising Consulting Engineer certifying that the specific work for which a certificate is sought has been completed in accordance with the terms of the development consent, the construction certificate, DCP16 - Subdivision Manual and good Engineering Practice.

2. Where Council is requested to issue the construction certificate all compliance certificates and a Subdivision Certificate, Council will carry out the following inspections as deemed necessary by Council based on the rates contained in Council's current Fees and Charges:-

Roadworks

- a. Pre-construction commencement erosion and sedimentation control measures
- b. Completion of earthworks

Reports from Director Development Services

- c. Excavation of subgrade
- d. Pavement - sub-base
- e. Pavement - pre kerb
- f. Pavement - pre seal
- g. Pathways, footways, bikeways - formwork/reinforcement
- h. Final inspections - on maintenance
- i. Off Maintenance inspection

Water Reticulation, Sewer Reticulation, Drainage

- a. Excavation
- b. Bedding
- c. Laying/jointing
- d. Manholes/pits
- e. Backfilling
- f. Permanent erosion and sedimentation control measures
- g. Drainage channels
- h. Final inspection - on maintenance
- i. Off maintenance

Sewer Pump Station

- a. Excavation
- b. Formwork/reinforcement
- c. Hydraulics
- d. Mechanical/electrical
- e. Commissioning - on maintenance
- f. Off maintenance

Council's role is limited to the above mandatory inspections and does NOT include supervision of the works, which is the responsibility of the Developers Supervising Consulting Engineer.

- 3. The EP&A Act, 1979 (as amended) makes no provision for works under the Water Supply Authorities Act, 1987 to be certified by an "accredited certifier".

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35. Prior to the issue of a Subdivision Certificate, Works as Executed Plans shall be submitted in accordance with the provisions of DCP16 - Subdivisions Manual.

The plans are to be endorsed by a Registered Surveyor AND a Consulting Engineer Certifying that:

- (i) all drainage lines, sewer lines and structures are wholly contained within the drainage easement created by the subdivision;
- (ii) the plans accurately reflect the Work as Executed.

Note: Where works are carried out by Council on behalf of the developer it is the responsibility of the DEVELOPER to prepare and submit works-as-executed plans.

36. Prior to the issue of a Subdivision Certificate a maintenance bond (in cash or unlimited time Bank Guarantee) shall be lodged with Council.

The bond shall be based on 5% of the value of the works which will be held by Council for a period of 6 months from the date on which the Subdivision Certificate is issued and will be refunded following the remedying of any defects arising within the 6 month period.

37. (i) PRIOR to lodging an application for a Subdivision Certificate, the applicant shall obtain the written approval of Council to the proposed road/street names. Approved names are to be in accordance with Council's Road Naming Policy adopted on 7 August 1996 and are to be shown on the Plan of Subdivision accompanying the application for a Subdivision Certificate.
- (ii) To avoid confusion resulting from duplication of private driveway/accessway name and public road/street names, the applicant shall submit to Council for approval the proposed name(s) of any private driveway/accessways.

The names shall be approved PRIOR to lodgement of any plan of subdivision in respect of the development.

Names which duplicate existing and approved street names will not be approved.

38. Before the commencement of the relevant stages of road construction, reports shall be submitted to Council from a Registered NATA Consultant demonstrating.
- a. That the pavement has been designed and constructed in accordance with subgrade analysis as per Austroads Pavement Design, A Guide to the Structural Design of Road Pavements.
 - b. That the pavement materials used comply with the specifications in RTA Form 3051 (June 1998)
 - c. That the pavement layers have been compacted to RTA specifications.
 - d. That site fill areas have been compacted to the specified standard.

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- e. That supervision of Bulk Earthworks has been to Level 1 and frequency of field density testing has been completed in accordance with Table 8.1 of AS 3798-1996.
 - f. That pavement testing has been completed in accordance with Table 8.1 of AS 3798-1996.
39. All lots must be graded and trimmed to prevent the ponding of surface water. Additionally, all lots must be adequately vegetated and action must be taken to prevent erosion from wind and/or water to the satisfaction of Council.
40. The Construction Certificate application shall include a provision for pavement design. The final design shall be approved by Council OR an accredited certifier prior to the placement of any road pavement material.

ROADS/STREETS

41. (i) The section of Coast Road from the southern boundary of the site to the T – junction construction at Road No. 1 shall be restored to an adequate running surface (including any necessary crossfall corrections) by means of the addition of asphaltic overlay surfacing no less than 25mm thick, such work to be completed to the satisfaction of Council.
- (ii) An appropriate shoulder 1.2m in width (to Austroad design standards) shall be provided on the eastern edge of the above road segment.
- (iii) Road reserve widening on the eastern side of the Coast Road corridor from Road No. 1 to the southern boundary of the site shall be dedicated free of cost to Council in accordance with Cardno MBK figure E32 “Approved Coast Road Details” dated 24 September 1999, consistent with the draft Stage 1 linen plan.
- (iv) Suitable traffic noise attenuation structure consisting of earthbunds and/or acoustic fencing shall be provided east of the landscape buffer and clear of the Coast Road reserve for the full length of the site. The landscape buffer as shown in Cardno MBK figure E32 shall be formed, stabilised and landscaped in accordance with plans to be submitted and approved by Council prior to the issue of the Subdivision Certificate.
42. Provision of adequate vehicular access in accordance with Council's "Access to Property" pamphlet.
43. All proposed road/streets, drainage and associated works within the subdivision shall be designed and constructed in accordance with the development consent plans referred to in Condition 10 AND the relevant provision of DCP No. 16 - Subdivisions Manual, except where varied by the conditions of this consent.
44. The Engineering Plans and specifications to accompany the Construction Certificate application shall provide for:-

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- i. Construction of the roads in the subdivision generally in accordance with Cardno MBK Figures E14, E22 and E23 and the table below, except where varied by these conditions.
- ii. Road cross sections employing “roll-over” kerbing with a minimum of 0.9m abutting grass filter verge containing street lighting and street trees, to discourage parking on the footpath.
- iii. A native tree planting schedule for each of the roads in the table below showing the location and species of each street tree, clear of driveways and sight lines.
- iv. Notwithstanding any steps within the Road Reserve boundary, the minimum road pavement and footway widths shall be maintained for the full length of all roads.

Figure	Road Number	Min. Road Reserve	Min. Carriageway Width	Min. Footway Width
E14	1	20.0m	14.0m	3.0m (paved footway width 1.5m both sides)
E14	2 Ch0.0-Ch360	20.0m	9.0m	5.5m (singled paved footway width 1.2m)
E14	2 Ch360-Ch606	20.0m	11.0m	4.5m (paved footway width 1.2m both sides)
E14	3	20.0m	11.0m	4.5m (single paved footway width 1.2m)
E23	4*	13.5m	7.5m	3.0m (single paved footway width 1.2m)
E23	5	13.5m	7.5m	3.0m (single paved footway width 1.2m)
E22	6	13.5m	7.5m	3.0m (single paved footway width 1.2m)
E22	7*	13.5m	7.5m	3.0m (singled paved footway width 1.2m)
E22	8	13.5m	7.5m	3.0m (single paved footway to standard specified in condition 48(i))
E22	9*	13.5m	7.5m	3.0m (single paved footway width 1.2m)
Coast Road south of Road 8		as required	as exists plus eastern road shoulders to Austroads Standards	Eastern side only: paved footway to standard specified in condition 48(i), plus landscaping, acoustic buffers (see Condition

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			14 of Stage 1 consent S96/135) and table drains.
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- * These roads shall be linked into a single continuous road 7.5m kerb to kerb.
- 45. Construct a 9.0m kerb radius cul-de-sac at the southern end of road No. 2 including kerb and channel, pavement, asphaltic concrete or other approved surfacing and a 3.0m width footway. The applicant shall either:
 - i. Dedicate a public road over the cul-de-sac or;
 - ii. Register a right of carriageway over the cul-de-sac.
- 46. The intersection of Road No. 1 and the Coast Road shall be constructed to a Type C “right turn” and Type B “left turn” standard including channelisation, deceleration lane, line marking and street lighting in accordance with Austroads Part 5 Intersections at Grade, such design to allow road dedication and correct kerb lines and road space for ultimate traffic loading, including future signalisation.
- 47. All permanent cul-de-sacs shall be constructed with kerb radius of 9.0m and a minimum footway width of 3.0m.
- 48. i. All cycleways, walkways and coastal walkways/cycleways shall be designed generally in accordance with Austroads Guide to Traffic Engineering Practice Part 14 and AMCORD provisions for single and shared footway/cycleways (Element 1.4 and PND17) and constructed in accordance with engineering plans and specifications which accompany the construction certificate application which shall be approved by the Director, Development Services.
- ii. Pursuant to Section 94 Plan No. 19 and Condition 39(a)-(e) of Development Consent S96/135 issued by the Land and Environment Court on 16 December, 1998, the applicant shall construct all cycleways, walkways and coastal walkways/cycleways applicable to Stage 2 as shown on Map 5 contained within Section 94 Plan No. 19 EXCEPT that the cycleway/walkway shall be constructed within Lot 500 along the eastern boundary of the site to the south eastern corner of proposed Lot 1, and then in a dedicated public road 10m wide corridor parallel to and abutting the southern boundary of proposed Lot 1 to the alignment of the Coast Road in lieu of the route shown on Map 5.
- iii. Alternatively, the developer may, in the case of residential frontage footpaths, pay a cash contribution to the value of the works plus 25% in lieu of construction and Council will construct the footpath when the subdivision is substantially built out. The cost of these works shall be validated by a schedule of rates.
- iv. If the developer elects to construct the footpath prior to the issue of a Subdivision Certificate, a cash maintenance bond equal to 25% of the contract value of the footpath shall be lodged for a period of 3 years or until 80% of the lots fronting

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paved footpaths are built on. The maintenance bond shall be lodged prior to release of the subdivision certificate.

- v. The construction of a minimum of 20 car parks within an area of 1000m² of dedicated public road in the south western corner of Lot 1 and the construction of an emergency four wheel drive access from the Coast Road through the 10m wide corridor to the beach in accordance with plans to be submitted and approved by Council. An additional beach pedestrian accessway shall be constructed adjacent to the emergency four wheel drive access referred to above.

Access to the car park and for emergency vehicles from the Coast Road shall be by way of a junction to be constructed in conjunction with the car parking area to AUSTROADS standards (including lighting) in accordance with plans to be submitted and approved by Council.

The works shall be completed prior to the release of the Stage 2 linen plan.

49. Pram ramps are to be constructed at road intersections in accordance with Council's Plan No. A4-96 to the satisfaction of Council.

DRAINAGE/FLOODING

50. All fill of new residential lots is to be graded at a minimum of 1% so that it drains to the street or other approved permanent drainage system and where necessary, perimeter drainage is to be provided to ensure minimal impact on adjoining properties. If filling is required, a plan of proposed drainage is to be submitted with the Construction Certificate application.
51. On completion of the filling work, all topsoil to be respread and the site to be grassed and landscaped with the exception of infiltration basins.
52. All roofwater from dwellings shall be discharged to infiltration pits located on each subject allotment. The design of the infiltration pits shall be submitted with the Application for the dwelling and approved by the Certifying Authority.
53. All proposed building pads are to be above the Q100 design flood level, including provision for any localised overland flow, such that at least 300mm freeboard is provided to the satisfaction of the Director Development Services.
54. The earthworks shall be carried out in accordance with AS 3798-1996, "Guidelines on Earthworks for Commercial and Residential Developments". In general, material shall be placed in layers not exceeding 300mm in depth, watered and compacted to achieve the specified density ratio as monitored in Table 5.1 - Guidelines for Minimum Relative Compaction.
55. The earthworks program shall be monitored by a Registered Geotechnical Testing Consultant to a level 1 standard in accordance with Appendix 6, AS 3798-1996. In addition, the frequency of field density testing shall be to a Type 1 standard in accordance with Table 8.1 of AS 3798-1996. The geotechnical report shall be

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accompanied by a certificate from a registered Geotechnical Engineer certifying that the filling operations comply with AS3798-1996.

56. Prior to final acceptance of the Stormwater system and release of the maintenance bond a CCTV inspection of the stormwater pipes will be required to demonstrate that the standard of the stormwater system is acceptable to Council.

All costs associated with the CCTV inspection and repairs shall be borne by the applicants.

57. All stormwater discharged from the site including dewatering discharge is to be directed to a sediment pond/infiltration basins prior to final discharge into any waterway. The sediment ponds or other approved devices are to be maintained in good condition until the maintenance bond is released.
58. Regular inspections shall be carried out by the Supervising Engineer on site to ensure that adequate erosion control measures are in place and in good condition both during and after construction.

Additional inspections are also required by the Supervising Engineer after each storm event to assess the adequacy of the erosion control measures, make good any erosion control devices and clean up any sediment that has left the site or is deposited on public land or in waterways.

This inspection program is to be maintained until the maintenance bond is released or until Council is satisfied that the site is fully rehabilitated.

59. For the purpose of this condition “trunk drainage” shall be defined as the drain along the coastal frontage of the subject land and the continuation of this drain, downstream to Controlled Outlet No. 7 as generally located on Cardno MBK Figure E24 Rev A.

The ultimate point of discharge for this development (except the west sloping portion of proposed lot 29) shall be Controlled Outlet No. 7. The west sloping portion of proposed lot 29 shall discharge to Controlled Outlet No. 3.

Trunk drainage shall be designed to convey Q_{100} stormwater discharge. The trunk drainage shall be constructed and the land (containing the drain) dedicated to Council. In the section between proposed public reserve lot 81 and Controlled Outlet No. 7, the land to be dedicated shall include the drain and provision for maintenance vehicle access, the maintenance vehicle access shall be constructed to an all weather, two wheel drive standard.

The trunk drainage along the coastal boundary, and elsewhere, shall be designed to accommodate Q_{100} (no infiltration) flows with a minimum 300mm freeboard.

Where consistent with other land use requirements, grassed swale drainage is to be used in preference to pipes or hard lined channels. In designated public open space areas, open drains will only be permitted if the resultant landform is satisfactory to Council for open space purposes.

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Major (Q₁₀₀) and minor (Q₅) drainage shall be constructed in the eastern extension of Road No. 2 (ie the eastern extension of the road between the end of construction proposed in this application and the coastal drain), this section of Road No. 2 shall also be dedicated to Council.

60. Management Lots 1 & 2 (except the southern part of Management Lot 1 south of chainage 200m on the 50 year erosion “control” line) shall be shaped in accordance with Cardno MBK Figures E8 - E13. Where earthworks are proposed on Crown Land (Lot 500), the written consent of the owner (the Department of Land and Water Conservation) is to be submitted with the construction certificate application, and:

- Bulk earthworks over that part of the site the subject of this application shall be completed sufficient to ensure that road levels are fixed, the drainage system is established and the lot boundaries are at their final level
- Provision shall be made to ensure surface runoff does not discharge onto adjoining land
- Provision shall be made to accept up to Q100 natural or existing surface runoff from adjacent land that discharges onto the subject land
- Where the proposed levels are inconsistent with existing levels on adjacent land, retaining walls and any necessary ancillary or drainage works shall be provided on the lot boundaries to ensure the land shaping has no adverse affect on adjacent land. Plans and specifications of the retaining walls and ancillary works and the written consent of the adjacent landowner shall be submitted with the construction certificate application.*

* As an alternative, the applicant may submit a proposal with the construction certificate application for simultaneous reshaping of both the subject land and adjacent land. Such a proposal must be authorised by all affected land owners and indemnify Council from any action resulting from the execution of the proposal or any land forming activity that may adversely affect adjoining land.

61. This condition refers to proposed lots 1, 19, 31, 29 and 30.

Prior to release of any subdivision certificate:

- Sufficient permanent infrastructure must be constructed in the subdivision that creates these lots so that they may be capable of being developed to their ultimate capacity by subsequent applicants without any requirements for provision or augmentation of external infrastructure. All proposed infrastructure that crosses the boundaries of these lots or runs adjacent to their boundaries must be constructed in the subdivision that creates the lots.
- These lots shall be provided with interim and ultimate drainage inlets on the lots or at lot boundaries. The interim period is defined as that time between the creation of the lot and the development of the lots. The lots shall be

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shaped to ensure all interim Q5 concentrated drainage and surface runoff from slopes longer than 40m is discharged to these inlets. Provision shall be made outside the lots for acceptance and transport of ultimate and interim Q100 flows from the lots.

- Where infrastructure required to serve a future development lot, passes through another lot, easements in favour of Council shall be granted over the infrastructure (and necessary access roads to such infrastructure).
- Any public utilities currently located in these lots are to be either relocated to public land.

62. Permanent Stormwater Quality Treatment

(a) Stormwater Quality Objectives

Permanent stormwater quality treatment shall comply with “*Tweed Urban Stormwater Quality Management Plan*” (adopted by Council 19 April 2000) section 5.5.3 “Stormwater Objectives During the Post Construction or Occupational Phase of Development”. New development is required to comply with table 5.4 and demonstrate compliance by modelling in accordance with section 5.5.4 of the Plan:

Section 5.5.5 of the plan further advises that treatment that is in accordance with the “deemed to comply” provisions of *Appendix E - Tweed Shire Council, Aus-Spec D7 - Stormwater Quality* is deemed to comply with the objectives in 5.5.3.

“Table 5.4 Stormwater Treatment Objectives for Post Construction (Occupational) Phase of Development

<i>Pollutant</i>				
<i>Nutrients</i>	<i>Maximum permissible load that may be discharged kg/ha/year</i>			
	<i>Average year (1719mm)</i>	<i>Wet Year (2185mm)</i>	<i>Dry Year (929mm)</i>	
<i>Suspended solids (SS)</i>	300	400	120	
<i>Phosphorus (TP)</i>	0.8	1.1	0.35	
<i>Nitrogen (TN)</i>	4.5	6	1.5	
<i>Litter</i>	<i>Retention 70% of annual litter load greater than 5mm</i>			
<i>Coarse sediment</i>	<i>Retention of 90% of annual load of sediment coarser than 0.125 mm</i>			
<i>Oil and grease (hydrocarbons)</i>	<i><10 mg/litre in flows up to 40% of Q1 peak.”</i>			

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Note: The Water Quality Management and Monitoring Program contained in Cardno MBK letter of 21 February 2000 containing proposals for Water Quality Management generally achieves the above objectives.

(b) Water Sensitive Design

Water sensitive design practices shall be adopted. Where it is practical, water quality features are to be designed into the land development site rather than rely on special end of pipe devices to strip pollutants and nutrients from stormwater prior to discharge. Typical water quality features that can be designed into the site development include use of porous pavements, directing runoff over filter strips or grass swales in landscaped areas, utilising landscaping as an integral part of stormwater quality management, maximising use of infiltration and stormwater reuse (eg. Rainwater tanks). These features can be complemented by site management practices which minimise creation of stormwater pollutants and nutrients and provide for appropriate operation, cleaning and maintenance of water quality control devices.

(c) Infiltration

- i. Infiltration areas are to be sized with a safety factor of 2 (this is to allow for long term deterioration in infiltration rate).
- ii. runoff entering infiltration trenches/basins shall be pretreated to remove sediment and gross pollutants.
- iii. The infiltration rate for infiltration devices shall be determined as follows:
 - Conduct percolation tests on the site in accordance with Appendix B of A.S. 1547-1994, Disposal Systems for Effluent from Domestic Premises.
 - If the calculation yields a result $<6\text{m/day}$, this rate may be used for design.
 - If the result is $>6\text{m/day}$, the rate for design may not exceed 6m/day unless this rate is confirmed by independently determining the coefficient of permeability of the soil in accordance with AS 1289.6.7.3. Notwithstanding these tests, the maximum infiltration rate that may be used for design and sizing purposes is 12m/day .

(d) Specific Requirements

Permanent stormwater quality devices are to be designed in accordance with these conditions and “Tweed Urban Stormwater Quality Management Plan” Appendix E – Tweed Shire Council, Aus-spec D7 – Stormwater Quality, and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate Application.

Unless stated otherwise, references in brackets refer to sections on devices in NSW EPA publication “Managing Urban Stormwater - Treatment Techniques, November 1997”.

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- Roof drainage. All future roof drainage is to be discharged to infiltration trenches located on each contributing allotment or on other land appropriately title burdened to the contributing allotment. Infiltration trenches shall be designed in accordance with the following criteria:
 - As a minimum requirement, trenches are to be sized to accommodate the ARI 3 month storm (deemed to be 40% of the ARI one year event) and infiltrate this storm within a 24 hour period, with a safety factor of 2, before surcharging occurs
 - Surchage overflow from the infiltration area to the street gutter, interallotment or public drainage system must occur by visible surface flow.
 - Runoff is to be pre treated to remove contaminants prior to entry into the absorption areas (to maximise life of absorption areas between major cleaning/maintenance overhauls).
 - If the site is under strata or community title, the strata/community title plan is to ensure that the infiltration areas are contained within common land that remain the responsibility of the body corporate (to ensure continued collective responsibility for site drainage).
- Where consistent with other land use requirements, grassed swale drainage (Ref 5.2) is to be used in preference to pipes or hard lined channels.

Note: Swales are not preferred as a substitute for kerb and gutter

- *where on street parking is required, unless cars can be excluded from swale area*
- *on roads serving small lots with numerous driveways*
- *where gradients are <1% or >5%)*
- Oil/Grit Separators (ref 4.7), permanent pool 30m³ per untreated, impervious (this excludes the impervious upstream areas discharged into infiltration devices) hectare with 50-70% of this volume in first chamber (or equivalent devices approved by Council) are to be provided in the underground road/hardstand stormwater drainage systems to remove sediment, litter and oil/grease prior to discharge onto the coastal drain/infiltration area, ie. at the following locations: - East side of Roads 9, 7 and 4; east end of public car park; east end of Road 2.
- Infiltration basins (ref 5.6) shall be provided upstream of Controlled Outlet No 7 and controlled outlet No. 3, and sized to infiltrate all runoff from stormwater flows up to 40% of ultimate $Q_{1 \text{ year}}$. Infiltration basin sizing shall be determined on a catchment basis. For the purpose of this consent a “catchment” shall be the total area draining to each controlled outlet (No. 3 and No. 7). The infiltration basins shall be contained within reserves to be dedicated to Council. The basins may only be contained within designated public open space areas, if the resultant

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landform is satisfactory to the Council for open space purposes. Infiltration basins are to consist of raw dune sand with a minimal vegetation cover of endemic dune grasses. No topsoil, mulch or other vegetative matter is to be used on infiltration basin surfaces and no establishment, operation or maintenance procedures are permitted that may reduce surface permeability.

SERVICES

Sewer

63. The applicant shall lodge detailed engineering plans with the construction certificate application for the Sewerage Reticulation and Pumping System.
64. i. Prior to issuing a Subdivision Certificate, outfall sewerage reticulation shall be provided to all lots within the subdivision including a minimum 150mm diameter sewer junction terminated at least 1.0m inside the property boundary of each lot in accordance with engineering plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

Council does not permit the building over Council's sewers. When buildings are located in close proximity to the sewer, detailed plans of footing types, location and depth relative to the sewer are required to be included with the Construction Certificate Application.

- ii. Any sewerage works required by the Stage 1 consent S96/135 which have been bonded shall be completed to the satisfaction of the Director of Engineering Services **PRIOR** to the release of the Subdivision Certificate.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Water

65. Prior to issuing a Subdivision Certificate, Town Water shall be provided to each lot including a minimum size 25mm outside diameter water service terminated 1.0m inside the property boundary of each lot in accordance engineering with plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

The Construction Certificate application shall provide reticulation calculations which clearly demonstrate that the proposed 100mm diameter water main servicing proposed Lot 1 has sufficient capacity to ensure that adequate fire fighting flows are maintained at all times.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

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Telephone

66. The production of written evidence from Telstra Australia certifying that satisfactory arrangements have been made for the provision of underground telephone supply. The documentation shall be submitted prior to the issue of a Subdivision Certificate.

Electricity

67. i. The production of written evidence from NorthPower certifying that reticulation of underground electricity has been completed; and
- ii. The reticulation to include the provision of fully installed electric street and parkland pathway lights to the relevant Australian standard. Such lights to be capable of being energised following a formal request by Council. The proposed location and style of lighting standards (clear of other public utilities, private accesses, and street trees) to be submitted with the Construction Certificate application. The Construction Certificate shall be submitted PRIOR to issue of a Subdivision Certificate.

ENVIRONMENT PROTECTION

68. Suitable covering and protection is to be provided to ensure that no material is removed from the site by wind, causing nuisance to neighbouring properties.
60. All battered areas are to be topsoiled and grassed, or other suitable protection provided as soon as filling is placed adjacent to neighbouring properties.
70. All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.
71. The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.
72. Where earthworks result in the creation of embankments and/or cuttings greater than 1m high and/or slopes within allotments 17° or steeper, such slopes shall be densely planted in accordance with a detailed landscaping plan. Such plan to accompany the Construction Certificate application.

Such plans shall generally incorporate the following and preferably be prepared by a landscape architect:

- i) Contours and terraces where the height exceeds 1m.
- ii) Cover with topsoil and large rocks/dry stone walls in terraces as necessary.
- iii) Densely plant with sub-tropical (rainforest) native and mature species to suit the aspect/micro climate. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.

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- iv) Mulch heavily (minimum 300mm thick) preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.
 - v) The landscaping shall be completed to the satisfaction of the Director Development Services PRIOR to the issue of a Subdivision Certificate.
 - vi) A bond shall be lodged prior to the issue of the subdivision certificate to ensure that the landscaping is maintained by the developer for a period of 6 months from the date of issue of a Subdivision Certificate. The amount of the bond shall be 20% of the estimated cost of the landscaping or \$3000 whichever is the greater.
73. All necessary precautions shall be taken to minimise impact from dust during filling operations from the site and also from construction vehicles.
74. The burning off of trees and associated vegetation felled by clearing operations is not permitted unless such burning is carried out in a specially constructed pit provided with an air curtain over the top. Separate approval is required prior to any burning.
75. Construction site work including the entering and leaving of vehicles is to be restricted to between 7.00 am and 7.00 pm Monday to Saturday and no work on Sundays.
76. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:
- A. Short Term Period - 4 weeks.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.
 - B. Long term period - the duration.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.
77. The following restrictions apply to dog and cat ownership and control on all residential lots:-
- i. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and the ownership of cats within the development shall be restricted to one de-sexed cat per allotment and such cats shall be restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.
 - ii. No dog shall be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.

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- iii. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.

These ownership and control requirements shall be reinforced by a Restrictions as to User under Section 88B of the Conveyancing Act, 1919-1964.

A Section 88B Instrument creating the restriction as to user shall contain a provision enabling the restriction to be revoked, varied or modified only with the consent of Council.

78. All stormwater gully lintels shall have the following notice cast into the top of the lintel: 'DUMP NO RUBBISH, FLOWS INTO CREEK' or similar wording to the satisfaction of the Director of Development Services.
79. The use of vibratory compaction equipment (other than hand held devices) within 100m of any dwelling house is strictly prohibited.
80. i. Submission and approval of a separate development application for those works to be undertaken in accordance with the Dune Management Plan and Lot 500 Management Plan required by consent S96/135 issued by the Land and Environment Court on 16 December, 1998.
- ii. The Dune Management Plan and Lot 500 Management Plan shall be implemented in accordance with any development consent obtained pursuant to Condition 80(i) to the satisfaction of Council.
81. The Water Quality Monitoring and Management Program prepared by Cardno MBK dated 1 February 2000 is to be implemented and be amended to include an additional 3 groundwater monitoring points.

In addition the water quality objectives table is to be amended to include an objective for groundwater level alterations. These details are to be submitted to the satisfaction of Council prior to the commencement of works. Any alteration to this will need to be to the satisfaction of Council.

82. Construction phase stormwater quality treatment (erosion and sediment control) shall be designed and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate.

Erosion and sediment control shall be in accordance with *the "Tweed Urban Stormwater Quality Management Plan"* (adopted by Council 19 April 2000) section 5.5.2 "Stormwater Objectives During the Construction Phase of New Development". This section requires all new development to comply with Appendix E of the Plan "*Tweed Shire Council Aus-Spec D7 - Stormwater Quality*" and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works". Erosion and sediment control shall remain in place until final approval is given and the maintenance bond has been released.

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83. The Acid Sulfate Soils Management Plan prepared by Cardno MBK dated 1 February 2000 is to be implemented for the duration of the works.

Page 8 of the "Reporting" section is to be amended to include "Council will be informed within 7 days of any major complaint results, particularly in relation to exceedences of the nominated range for each water quality parameter".

The details are to be submitted to the satisfaction of the Director Environment and Community Services prior to works commencing.

84. In accordance with Condition 34 of consent S96/135 for Stage 1, prior to issuing a Construction Certificate for development of any Management lot, all existing Bitou Bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof.
85. PRIOR to any work commencing pursuant to this consent, a suitable fence shall be erected on the alignment of the eastern extremity of the approved work to ensure that no unauthorised works or disturbance occur within Lot 500.
86. In accordance with the provisions of condition 41(d) of Consent S96/135 for Stage 1 and as required by the National Parks and Wildlife Service in their letter dated 24 May, 2000, the following requirements shall be complied with:-
- i. Drainage swales/open space corridors rising east/west shall be replanted with suitable indigenous vegetation sourced locally to assist the east/west dispersal of wildlife.
 - ii. A minimum of 300 Banksias are to be planted in each development lot in areas of public and private open space. These trees may include large (greater than 10cm DBH) individuals translocated from areas where their clearing is essential for the development design. These trees should be located in clumps and as far away from urban areas and lighting as possible.
 - iii. All large mature Banksias, up to a maximum of 30 per lot, in public or private open space, drainage swales etc, are to be marked and retained unless their removal is approved by Council in order to satisfy its requirements for open space and/or the proponents design of the development. Where such a tree is removed, it shall be replaced by a tree of similar size, taken from an area where it would otherwise be lost, and translocated into an unconstrained area of the lot.
 - iv. The proponent shall monitor and maintain as necessary any translocated trees for a period of one year from the date of consent in order to promote their survival.
 - v. In respect of the north-western area, as identified in the Gunninah report, clearing is to be deferred for a period of four years from 1 June 1999, or an alternative biological timeframe to be agreed between the applicant, NPWS and Tweed Shire Council.

Reports from Director Development Services

- vi. In respect of the commercial area, clearing may commence within four years in accordance with an agreed biological timeframe provided that adequate mitigation measures can be demonstrated to NPWS and Tweed Shire Council.
87. Compliance with the conditions imposed by the Department of Urban Affairs and Planning in granting concurrence to development in the 7(f) zone as follows:-
- a. No residential or associated buildings being erected on land zoned 7(f);
 - b. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;
 - c. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and
 - d. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.

Reports from Director Development Services

REPORT:

Applicant:	Kings Beach Project (No. 2) Pty Ltd (Consolidated Properties)
Owner:	Lenen Pty Ltd
Location:	Lot 3 DP 865049 Coast Road, South Kingscliff
Zoning:	Part 2(e) Residential (Tourist), Part 7(a) Environmental Protection (Wetlands), Part 7(f) Environmental Protection (Coastal Lands) and Part 7(l) Environmental Protection (Habitat)
Est. Cost:	\$2,896,300

BACKGROUND

Council has received a development application (K99/1360) for the subdivision of the subject land into 82 lots which consists of 75 residential lots, 4 tourist/commercial/medium density lots, 1 community lot and 2 open space lots. The subdivision is known as Stage 2 of Casuarina Beach Development. The subdivision is proposed on land described as Management Lots 1, 2, 12 and Parts of 3, 9 and 13 as approved for Stage 1. This land is located on the southern side of the Casuarina Beach site. A flora and assessment accompanies this application. The application seeks consent to subdivide the residential and part of the environmental protection (coastal lands) zoned land on the site. The site was zoned Residential/Tourist in 1989 for urban development following the preparation of the South Kingscliff Study.

The following is a history of development consents relating to the entire Kings Beach site.

- On 16 December, 1998 the Land and Environment Court issued development consent S96/135 for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. The construction of the new Coast Road is now completed. However, compliance with all conditions of this consent has not been completed and the linen plan has not been submitted. In addition, a Section 96(2) application has been submitted to modify this consent. This has not been determined by the Land and Environment Court.

It is considered that all relevant conditions of development consent S96/135 have been satisfied or can otherwise be addressed by the recommended conditions.

- On 6 December, 1999 Council received development application K99/1733 for the subdivision of management lots 5 and 7 and parts of 13 and 14 into 86 lots at the Kings Beach site. This is otherwise known as Stage 3 of the development of the Kings Beach site. This application is the subject of a separate report.
- On 6 December, 1999, Council received development application K99/1732 for the subdivision of management lots 3, 4, 9 and part 13 into 101 lots at the Kings Beach site. This is otherwise known as Stage 4 of the development consent of the Kings Beach site. This application is the subject of a separate report.
- The applicant's have lodged a deemed refusal appeal for each of the applications (Stages 2, 3 and 4) with the Land and Environment Court.

Reports from Director Development Services

Consent S96/135 (Stage 1)

As previously discussed the Land and Environment Court issued consent for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. Compliance with all the conditions of this consent has not been completed and the final linen plan (Subdivision Certificate application) has not been submitted.

Conditions of consent S96/135 which affect this application are discussed below:-

“A (i) *The subdivision of the land into 14 lots as shown generally on the Subdivision Plan*”.

Comment:

The application is generally consistent with the Subdivision Plan.

“A (iii) *The development of the management lots for the purposes of low and medium density residential, retail, commercial and tourist development together with associated and related uses and facilities generally in accordance with the Development Plan*”.

Comment:

The Stage 2 Development Master Plan is not the same as the Development Plan but is considered to be “generally in accordance” with same.

The Kings Beach Concept Master Plan submitted with the development application is not the same as the Development Plan approved by the Court. The Kings Beach Concept Master Plan includes the former Narui Coastal Site and accordingly, it is considered that the Stage 1 consent should be modified to include the Kings Beach Master Plan in lieu of the Development Plan.

Reports from Director Development Services

“1. *The total population yield from the development of the Management Lots in accordance with the further development consents referred to in Condition 2 shall be based upon the following estimates:*

<i>Lots</i>	<i>Population</i>
<i>1</i>	<i>550</i>
<i>2</i>	<i>620</i>
<i>3</i>	<i>1100</i>
<i>4</i>	<i>700</i>
<i>5</i>	<i>1520</i>
<i>6</i>	<i>400</i>
<i>7</i>	<i>710</i>
<i>Total</i>	<i>5600</i>

Comment:

This application does not achieve the population yields for lots 1 and 2. The estimated population yields in the Stage 1 consent for management lots 1 and 2 is 1,170 persons. The application indicates the population yield for lots 1 and 2 at 837 persons, which is well below the estimate of 1,170. (See section (iii) of this report under DCP11 - Kings Beach for further comments on this issue). The DCP11 and Section 94 Plan should be amended to reflect the above figures in the event that Council approves this Development Application.

“3. *The development shall be carried out generally in accordance with the Development Plan, except where varied by these conditions”.*

Comment:

See A(i) above.

“18 (iv) *A report detailing water sampling results from the surface water and groundwater monitoring programs shall be submitted to Council prior to the commencement of any new stage of the development, including details of any relevant previous failure to meet water quality discharge objectives or standards. The report shall include a recommendation as to any proposed amelioration works required to be implemented to rectify the said failures and shall further include an indication as to whether the development may satisfactorily proceed.”*

Comment:

A Water Quality Monitoring and Management Program has been submitted for this application and is to the satisfaction of the Environment and community Services Division.

Reports from Director Development Services

“32. *The following controls shall apply to dog and cat ownership and a restriction as to user shall be created on the Management Lots under Section 88B of the Conveyancing Act, 1919-1964 in the following terms:*

- i. No property owner shall have more than one dog or one de-sexed cat;*
- ii. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and that any owners of cats within the development be restricted to one de-sexed cat per allotment and to have their cats restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.*
- iii. No dog to be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.*
- iv. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.*

This section 88B Instrument shall make provision for amendment, revocation or variation of restriction required by this conditions only with the approval of Council as the authorised authority.”

Comment:

This condition should be imposed on any consent for this application.

“34 *Prior to issuing a construction certificate for future development of any Management Lot, all existing Bitou bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof”.*

Comment:

This condition should be imposed on any consent for this application.

“35. *A Dune Management Plan shall be prepared to the satisfaction of the Director of Development Services in respect of the Foredune lands adjoining the Land and be submitted in conjunction with the Part XII Engineering Plans”.*

Comment

A Dune Management Plan has been submitted and approved by Council but not the Department of Land and Water Conservation.

The applicant and Lenen Pty Ltd have prepared an amended Dune Management Plan for the approval of Council’s Director of Development Services and DLWC. This Plan has been submitted to DLWC for comment and is subject of reports to the Council and Reserves Trust meeting of 24 May.

In addition, development consent is required for the works proposed in the Dune Management Plan. The applicant has been requested to submit a development application for this work to enable both

Reports from Director Development Services

applications to be assessed and determined on an integrated basis. To date, no application has been received for the works proposed by the Dune Management Plan. It is therefore considered that any consent should be conditioned to require submission of this development application.

“38. The land shown on the Subdivision Plan as Lots 8, 9, 10, 11, 12, 13 and 14 shall be dedicated to the Council as public open space at no cost in conjunction with registration of the linen plan of subdivision creating the allotments”.

Comment:

These lots have not been dedicated to date, however a condition is recommended requiring dedication prior to the issue of a Construction Certificate.

“39a The proposed regional coastal walkway/cycleway within Land zoned 7(f) as shown on the Development Plan shall be constructed generally in accordance with detailed engineering plans to be submitted prior to the release of the Stage 1 linen plans of subdivision and approved prior to work on the said walkway/cycleway commencing”.

Comment:

The coastal walkway/cycleway shown on the application plans appears to be generally consistent with the Stage 1 Development Plan. Part of the walkway/cycleway is within lot 500 and this is also consistent with the Development Plan and the approval of the Reserves Trust. The Stage 1 linen plan has not been submitted and final engineering plans for the cycleway/walkway have not been submitted. However, this does not preclude approval of this development application subject to appropriate conditions.

39b Construction of each section of walkway/cycleway immediately east of any management lot shall be completed prior to the release of the linen plan for future subdivision of the respective management lot”.

Comment:

This condition should be imposed on any consent.

“39c Notwithstanding the previous paragraph the walkway/cycleway adjacent to Lots 1, 2, 3, 4, 5, and 7 must be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1 or the re-subdivision of the management lots or immediately following construction of the cycleway/walkway from Cudgen Headland to the northern boundary of the land, whichever occurs first”.

Comment:

This will be included as a condition on any consent for this application.

“39e The design of the walkway shall be integrated with any adjacent proposed car parking areas and beach access points and shall extend for the full frontage of the land including, where necessary, within the Crown Foreshore Reserve subject to the written approval of the Reserves Trust”.

Reports from Director Development Services

Comment:

As commented in 39(a) above part of the foreshore walkway/cycleway is within the Crown Foreshore Reserve (lot 500). The Reserves Trust has resolved as follows:

“that the Trust approves the construction of the proposed walkway/cycleway, and ancillary drainage and landscaping works within Lot 500 DP 727420, Kings Beach being part of the Single Coastal Reserve subject to submission and approval of detailed engineering plans to the satisfaction of Tweed Shire Council”.

Any consent will be conditioned appropriately.

“39f The application and/or owner shall prepare and submit a plan for the approval of the Director of Development Services within 6 months of the release of the linen plan for Stage 1 for the embellishment works on Lots 12, 13 and 14 and such plan shall provide for:

- (i) removal of bitou bush and other noxious weeds.*
- (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of the Consent Orders and good practice in this regard.*
- (iii) provision of adequate and appropriate security lighting for users of Lots 12, 13 and 14.*
- (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the statement of Environment Effects”.*

“39g (i) A schedule for the implementation of the embellishment works including the relationship between the works set out in f(iii) and (iv) to the development of any management lots shall be submitted and approved by the Director, Development Services as part of the plan referred to in Condition 39(f).

- (ii) The embellishment works required by Conditions 39(f)(i-iv) shall be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1.*
- (iii) If the walkway/cycleway or any part thereof is constructed in accordance with Condition 39(b) then the embellishment works referred to in this condition or in Condition 39(f)(i-iv) shall be carried out concurrently in respect of Lots 12, 13 and 14 in which the walkway/cycleway is constructed.*
- (iv) If at the time of sale by Lenen Pty Ltd of any of lots 1 to 5 and 7 and the embellishment works referred to in Condition 39(f)(i-v) have not been completed in Lots 12, 13 and 14 as those lots are immediately east of the management lot as then sold the applicant shall provide in respect of those embellishment works a bond equivalent to the cost of those works plus 20%”.*

Comments:

Reports from Director Development Services

It is considered that the requirements of conditions 39(f) and 39(g) can be adequately conditioned on any consent for this application.

“41(a) Any development application with respect to any of the Management Lots shall provide for the planting of not fewer than the number of *Banksia integrifolia* shown in the Table hereunder against each such lot and totalling not less than 5400 stems provided that those numbers shall be reduced so that they total the difference between 14000 and the total number of stems planted pursuant to condition 40 (where they total more than 8600).

To avoid the potential for a *Banksia* monoculture, the numbers of *Banksias* proposed for replanting shall include a proportion of other relevant flowering native species depending on the location for replanting. These other relevant species shall be of a type that provides a food source for the Queensland Blossom Bat. Approximately 20% of the planting shall comprise other relevant flowering species.

Lot No	Compensatory Planting (stem numbers)
1	690
2	382
3	1256
4	1232
5	1435
6	49*
7	356
Total	5400

Comments:

An extract from the report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates is provided as follows:

“Stage 1 Consent condition 41(a) notes that a development application with regard to any of the Management lots shall provide for the planting of not fewer than the number of *Banksia* shown in the table hereunder against each lot.

Table 11

Mitigation Required as per Stage 1 Consent

Lot No.	Compensatory Planting
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Reports from Director Development Services

	Planting
1	690
2	382
3	1256
4	1232
5	1435
6	49
7	356
Total	5400

The combined total for the Study site is 1072 Banksia trees. As the development of the Study site will not result in the Blossom Bat population being in energy deficit, it is considered that these plantings are not critical. However, 15000 trees have been planted nearby which more than compensated for losses in the Study site.

15000 trees have been planted in accordance with the Vegetation Management Plan. Plantings have predominantly been undertaken on Management Lot 8 (west of the new Coast Road) and the Richtech land in the areas defined in the Amelioration plan”.

Based on advice from the NPWS dated 16 May, 2000, this condition has been complied with. See further comments in relation to Condition 41(d), 46 and 47.

“41(b) Any such planting shall be carried out before the linen plan of subdivision of any such Management Lot is released.

Total of 1 and 2 = 1072

Total of 6 and 7 = 405”

Comment:

See comments relating to condition 41(a) above.

“41(c) The Applicant shall within 6 months of the date of this consent provide to the Council and the National Parks and Wildlife Service an estimate of the number of productive inflorescences that are within the site of the relocated Coast Road and the Management Lots at that time.”

“41(d) Where an application is made for consent to the development of a Management Lot within 8 years of the completion of the planting referred to in Condition 40, the applicant for such consent shall be required, prior to such a consent being granted, to satisfy the National Parks and Wildlife Service that the removal of

Reports from Director Development Services

any Queensland Blossom Bat foraging resource from that Management Lot will not unduly reduce the total productive inflorescences referred to in (c) above or that such removal may proceed notwithstanding any such reduction”

Comment:

A report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates Pty Ltd dated September 1999, accompanies the application. This report has been sent to the National Parks and Wildlife Services and a copy of their response dated 16 May is attached. In summary, the NPWS has approved the selective removal of habitat in Stages 2, 3 and 4 in accordance with condition 41(d), subject to further conditions which are included in the recommendation.

Lenen has lodged a Section 96 application with the Land and Environment Court to modify Condition 41(d) of the Stage 1 consent as follows:-

1. Delete condition 41(d) and insert instead the following condition:-

“Prior to the issue of a subdivision certificate for the subdivision of any management lot, the applicant shall plant 300 Banksia integrifolia per lot within that lot in public areas such as road reservations, car parks and open space areas”.

2. Amend condition 47 by deleting the words ‘condition 42’ and insert instead the words ‘condition 41(a)’.

The Section 96 application was reported to Council’s meeting of 5 April, 2000, following which Council resolved as follows:-

- “1. *Receives and notes this report.*
2. *Officers, in connection with the National Parks and Wildlife Service, continue to negotiate with Lenen Pty Ltd with a view to negotiating an “out of court” resolution.*
3. *Raises no objection to the modification of Condition 47”.*

Comment

In their letter dated 16 May, 2000, the National Parks and Wildlife Service has agreed to the selective removal of habitat in Stages 2, 3 and 4 and therefore there is now no apparent need to modify Condition 41(d).

- “46. *Monitoring of the plantings in condition 40 shall occur every three months for the first year and thereafter at six monthly intervals unless otherwise agreed. A monitoring report shall be produced every six (6) months and shall make recommendations regarding any ongoing modifications to the Planting for the approval of the Director of Development Services based upon advice from the National Parks and Wildlife Service. These recommendations shall include the need to replace any unsuccessful plantings up to four years after initial planting and which may have been unsuccessful or destroyed. The NPWS and DDS reserve the right to inspect progress at any time.*

Reports from Director Development Services

47. *No approval shall be granted for development of any Management Lots unless the monitoring reports referred to in Condition 46 are sufficient to satisfy the Director of Development Services based upon advice from the National Parks and Wildlife Services that the plants are maturing in accordance with the programme set out in the Vegetation Management Plan. Each subsequent development application will detail the locations, timing and methodology of any further plantings proposed in accordance with Condition 42 above”.*

Comment:

The applicant has submitted the first Monitoring Report dated 15 September 1999 and that report was to the satisfaction of the NPWS. The second monitoring report was submitted to the NPWS on 5 May, 2000 and the Service has responded as follows:-

“There has been insufficient time since receipt of the second monitoring report for the NPWS to provide a detailed review. A brief study suggests that, although most of the 15,000 planted trees seem to be surviving, current growth seems to be slow. At this rate, it appears unlikely that sufficient compensatory foraging resource will be available within the next eight years (the original timeframes) and certainly not within the next four years (the revised timeframe)”.

In view of the Services comments in relation to Condition 41(d) and having regard to the recommended conditions arising from the NPWS letters of 16 May, 2000 and 24 May, 2000, the Director of Development Services is satisfied that conditions 46 and 47 have been complied with to a sufficient extent to enable the Stage 2, 3 and 4 applications to be recommended for approval.

“49. The applicant shall have prepared a Environmental Plan of Management by a suitably qualified person in conjunction with the Dept. of Land and Water Conservation and the Director of Development Services in respect of so much of Lot 500 as adjoins the Land that addresses any potential impacts on any threatened species, eg., oystercatchers, Little Terns and turtles, found using the beach and foredunes. This plan shall consider the exclusion of the public, domestic pets, feral animals, and four wheel drives from any detected nesting or roosting areas and the replanting of the dunes with suitable native vegetation including Banksias.”

Comment

See comments for condition 35.

Deed of Agreement.

The terms of the Deed of Agreement for the Stage 1 consent which affect the proposed Stage 2 application are discussed below:

“2.2 Richtech shall execute a transfer to the Council of the Amelioration Land for the amount of \$1 within 28 days of the Consent becoming operational pursuant to the Act. The transfer shall not be registered by the Council and shall be held in escrow until the Amelioration Land has been dedicated to Council pursuant to the Section 94 Plan whereupon the said transfer shall be cancelled and returned to Lenen.”

Reports from Director Development Services

Comment:

The amelioration land has not been transferred to Council, however this would not preclude determination of this application.

“2.7 Council shall not object to the closing and transfer to Lenen of any reserved roads within the Development Land which are rendered unnecessary by the Development, subject to alternative legal access being made available when any closing would sever public access to the beach or Lot 8. The Council will cooperate with Lenen in any application by Lenen to close the said roads.”

Comment:

The application proposes the creation of lots over an existing Crown Public Road which is the subject of a road closure application.

The road closure application has progressed to a point where the DLWC, as “owner”, has on 19 May, 2000, consented to lodgment of the development application in the following terms:-

“The Crown public road requires closure before the development can be finalised. However to enable the proposal to progress the Department has determined to provide the required consent. The consent as per the following, is provided on the basis that Consolidated Properties undertakes to fulfil its obligations as outlined in the letter of today’s date by Aspect North which is attached herewith”.

The letter of 19 May, 2000 from Aspect North is reproduced as follows:-

“I refer to our meeting this morning whereby we held certain discussions and confirm that I act as consultant to Consolidated Properties Pty Ltd and hereby agree to the following in regard to the current road closure application for the land at Casuarina Beach:-

- 1. That a strip of land 10m wide for the length of the southern boundary of the subject land (herein known as Lot 1) be dedicated to the public for the purpose of a cycleway, pedestrian access and emergency 4WD access.*
- 2. That 100sq. m of additional land be dedicated for the purpose of public car park at the appropriate location of the south western corner of the said Lot 1, adjacent to the Coast Road.*
- 3. That the cycleway be extended and constructed through Lot 500 (Crown Land) being as close as possible to the western boundary of Lot 500 for the full length of the said Lot, along the eastern and southern boundary until it intersects with the Coast Road.*
- 4. That the cycleway where it lies within Lot 500 or through the 10m dedication strip of land upon the southern boundary of the said Lot 1 should be where possible, constructed as close to the natural surface at all times, with minimum disturbance to the endemic vegetation.*

Reports from Director Development Services

5. *That the emergency 4WD access to be constructed from the Coast Road extending in an easterly direction through Lot 500 to provide satisfactory emergency access to the beach.*
6. *That an additional beach pedestrian accessway be constructed adjacent to the emergency 4WD access as mentioned in Point 5 above.*
7. *That stormwater drainage and associated bunds will not be located within the said Lot 500 unless they are required for works necessary for the construction of the cycleway.*
8. *That an intersection at an appropriate location will be constructed near the south western corner of the said Lot 1 where it meets the Coast Road in accordance with Austroads Standards that shall be agreed to by the Director of Engineering Services of Tweed Shire Council, whereby this is recognised to provide an integrated access at the appropriate location for both the anticipated development upon the said Lot 1 and for the cycleway, emergency 4WD access to the beach and the public car park as mentioned above.*

This agreement is provided in good faith on the condition that the current road closure application for the subject section of Crown Road be processed forthwith in accordance with the discussions held today and also requires the immediate provision of “owners consent” for the processing of the development application currently before Tweed Shire Council in the vicinity of the Crown Road subject to this road closure application.

Should the above be satisfactory please contact me as soon as possible and fax the owners consent once it is made available. Once again, I thank you for the opportunity to hold the discussions this morning in order to achieve an attainable outcome suitable for the Crown land the landowner”.

Some of the terms and conditions referred to in the above letter are inconsistent with the requirements of the Stage 1 consent and accordingly the Department of Land and Water Conservation issued amended requirements on 22 May, 2000 as follows:-

“I refer to our discussions this morning concerning the development application for the subdivision of the land described above, and the Crown’s provision of owner’s consent.

The following is noted:

- *Tweed Shire Council has advised that access to Lot 1 (Health Resort) has been prohibited under previous Court orders.*
- *Accordingly, the proposed integrated access (Point 8 your letter 19 May 2000) is not permissible.*
- *You have agreed on behalf of your client, Consolidated Properties Pty Ltd, to revised Points 2, 7 and 8 namely:*

Reports from Director Development Services

Point 2 - "That 1000sq m of additional land be dedicated for the purpose of public car park to be constructed by Consolidated Properties at the appropriate location on the south western corner of the said Lot 1, adjacent to the Coast Road.

Point 7 - "That stormwater drainage and associated bunds will not be located within the said Lot 500 unless they are required for works necessary for the construction of the cycleway or unless they are separately approved by DLWC"; and

Point 8 - "That an intersection at an appropriate location will be constructed near the south western corner of the said Lot 1 where it meets the Coast Road in accordance with Austroads Standards that shall be agreed to by the Director of Engineering Services of Tweed Shire Council, whereby this provides an access for the public car park and for the cycleway and emergency 4WD beach access".

- *All other points remain as agreed on and presented in your letter of 19 May 2000.*

The Crown's consent, as owner, to the development as per our letter dated 19 may remains subject to the above revised Points.

Should you wish to discuss any of the matters raised in this letter please contact Tim Rabbidge on the number indicated above."

The Department's requirements, as amended have been incorporated into the recommended conditions.

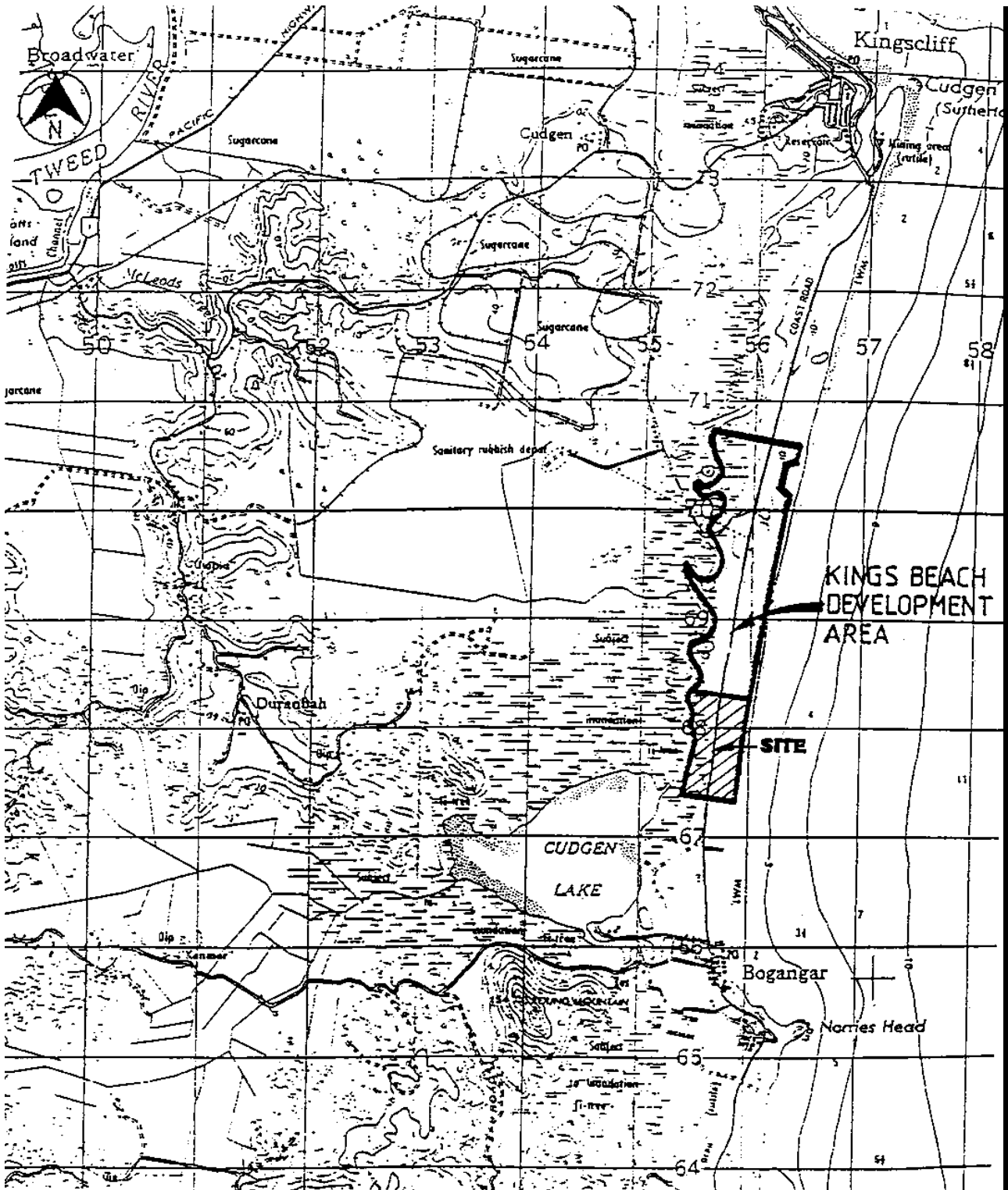
DESCRIPTION OF THE PROPOSAL

The subdivision application seeks development consent for the subdivision of the land at Casuarina Beach identified as management lots 1, 2, 12 and part 3, 9 and 13. The proposal is to subdivide the land into 82 lots consisting of 75 residential lots (26 beach front lots and 49 in land lots); 4 potential tourist/commercial/medium density development lots (lots 1, 29, 30 and 31 which will be developed subject to future development applications); one future community title lot (Lot 19) which will be developed subject to a future development application and two open space lots (Lots 20 and 81).

The development application proposes the creation of lots within the Crown Public road reserve between the Coast Road and the eastern property boundary. Consent to lodge the development application from the owner of the land (ie. Department of Land and Water Conservation) was submitted on 19 May, 2000 and is conditional upon the applicant meeting certain requirements as discussed above.

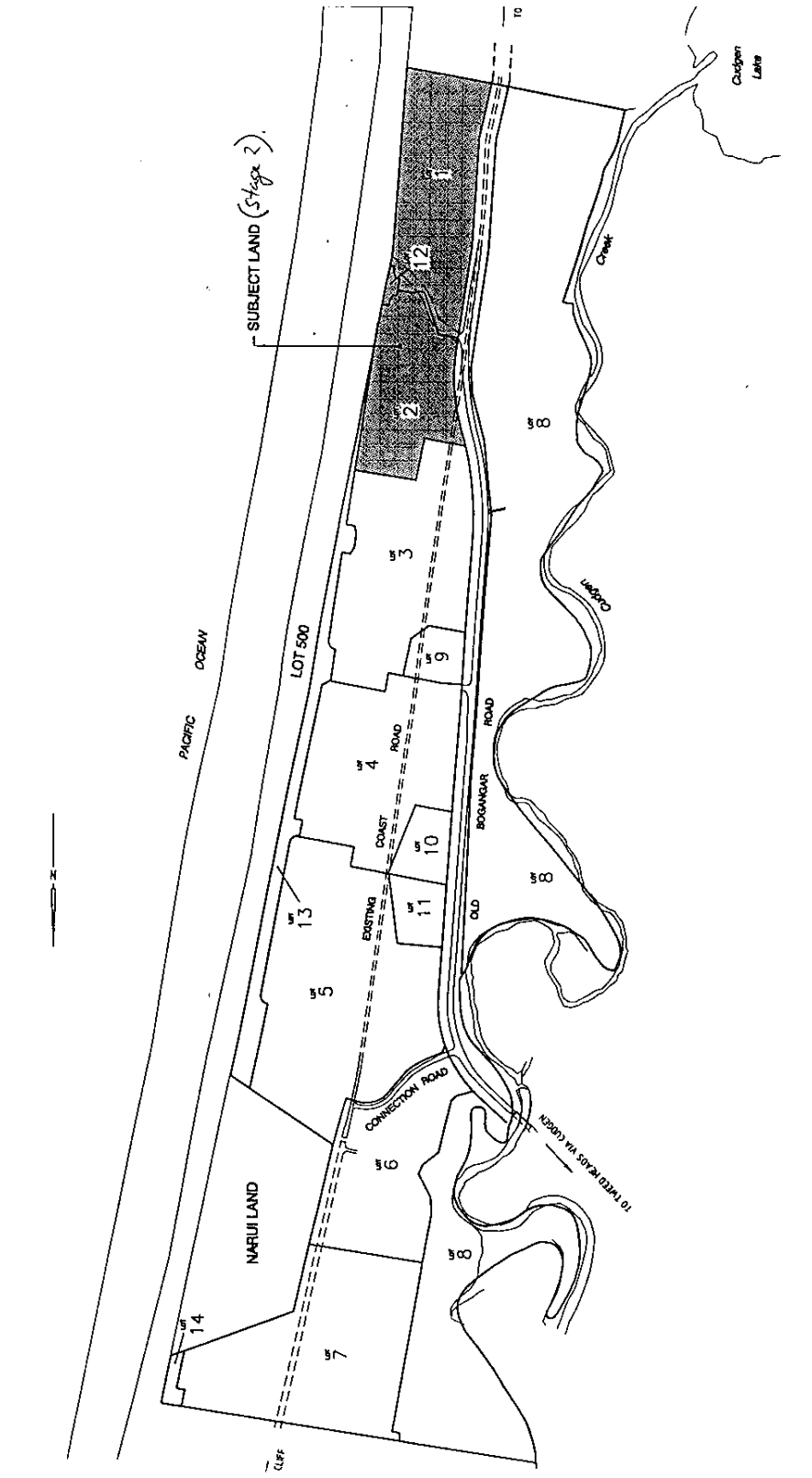
Reports from Director Development Services

FIGURE 1 - LOCALITY PLAN



Reports from Director Development Services

FIGURE 3 - KINGS BEACH MANAGEMENT LOT PLAN



Reports from Director Development Services

CONSULTATION

This application was referred to the following Government Authorities.

1. National Parks and Wildlife Service (NPWS)
2. Department of Urban Affairs and Planning (DUAP)

A summary of the Government Authority submissions is provided below with comments where appropriate.

1. National Parks and Wildlife Service

The application is accompanied by a flora and fauna assessment and a report on the impact on the Common Blossom Bat habitat. These reports, together with the application have been sent to the NPWS for their comment. A copy of the Services response dated 16 May, 2000 is attached to this report. The NPWS comments are provided below in summarised form and comments provide where appropriate.

* Relationship of the Stage 1 consent (S96/135) to the Development Application

“NPWS seek Council’s advice on whether the Stage 1 consent orders are relevant for the purposes of continuing assessment of Stages 2, 3 and 4 development applications.”

Comment

The Stage 1 consent (S96/135) remains relevant to Stages 2, 3 and 4 development applications and as previously discussed in this report the Stage 1 consent affects these applications and needs to be considered.

It is considered that the proposal is generally consistent with the Stage 1 consent.

* Threatened Species Impacts and the Status of the Development Applications

“It is the responsibility of Council, not the NPWS to determine whether a SIS is required based on Council’s evaluation of a Section 5A Assessment prepared in accordance with the provisions of the Environmental Planning & Assessment Act, 1979.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

In correspondence dated 24 May, 2000, the NPWS provided comments on the 8 point test report and a copy of their letter is attached.

Reports from Director Development Services

* Threatened Species Issues

NPWS have previously expressed concern with the extend of removal of Queensland Blossom Bat habitat.

The Blossom Bat

“The NPWS has received a formal request from the applicant to consider approval under Condition 41(d) of the Stage 1 consent for the removal of certain Blossom Bat habitat. The NPWS has reviewed extra information (dated April 2000) provided by Gunninah Environmental Consultants and is in receipt of the second monitoring report about the compensatory Banksia plantings.

The Gunninah report fails to detail the extent of low density Banksia proposed to be removed. However, by inclusion of low density data provided by Sinclair Knight Merz, the NPWS has concluded that about 29ha of Banksia habitat will be affected whilst removal of the remaining 19ha will be deferred. The deferral area hold over half of the high quality habitat.

The majority of the area proposed for clearing contains lower densities of Banksias, providing less feeding resource.

About 107ha of potentially suitable habitat is within the foraging range of the bats. Of this 87ha are Banksias. The removal of higher quality habitat from within the Casuarina Beach site represents about 12% of total potential habitat. It is likely that the usage of area outside the subject site is occurring and there is some kind of biological balance. However, it has not been satisfied that these areas are likely to be under utilised or be able to accommodate any bats displaced by the habitat removal. The NPWS concludes that a reduction in number of bats in the vicinity is likely to result from the proposed clearing.

The second monitoring report suggests that although most of the 15,000 planted trees are surviving, growth seems to be slow. At this rate it appears that sufficient compensatory foraging resource will not be available within the next 8 year and certainly not within the next 4 years.

After consideration of the above and in accordance with Condition 41(d), the NPWS approves the selective removal of habitat in Stages 2, 3 and 4 despite the reduction in productive inflorescences subject to inclusion of clauses reflecting the following in the Development Consents:

- A minimum of 300 Banksias are to be planted in each development lot in areas of public or private open space. These trees should be located in clumps and as far away from urban areas and lighting as possible.*
- All large mature Banksias (in excess of 10 cm DBH), up to a maximum of 30 per lot, in public or private open space, drainage swales, etc are to be marked and retained.*
- Clearing of the north-western deferred area, as identified in the Gunninah report, is to be prohibited for a period of at least four years and any approval after that shall*

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be subject to an agreed biological timeframe to be determined by the result of the ongoing monitoring program.

- *Clearing of the commercial area is to be prohibited for at least four years.*

Notwithstanding the above approval, concurrence may still need to be sought from NPWS in relation to other threatened species conditions should Council conclude significance with respect to S5A assessments for the Stage 2, 3 and 4 DAs as discussed below.”

Comment

As previously discussed, having regard to the above NPWS comments, it is now considered that Condition 41(d) of Consent S96/135 is satisfied subject to imposition of the amended conditions contained in the NPWS letter dated 24 May, 2000.

* Other Threatened Species

“The NPWS is aware of threatened species records, including marine turtle and Glossy Black Cockatoos, that were either not known or did not exist at the time that the Stage 1 SIS was produced.

The NPWS considers that retention of the Horsetail Oak, and other native dune vegetation, together with a proactive dune rehabilitation plan and appropriate controls on beach usage and lighting are essential to the continued conservation of these species in the area. The NPWS considers that each subsequent DA must be individually assessed under Section 5A for its impact on these species. Additional information is now held regarding Glossy Black Cockatoo use of the subject lands. It is recommended that this new information be considered in Section 5A assessments for these species.

The NPWS also recommended that a Section 5A Assessment be prepared to permit consideration of the significance of impact of the developments on Loggerhead and Green Turtles.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May, 2000 is attached.

Insofar as the Glossy Black Cockatoo, Loggerhead and Green Turtles are concerned, having regard to the 8 point test report submitted by the applicant and the advice from the NPWS dated 24 May, 2000, it is concluded that on balance, the stage 2, 3 and 4 development applications are unlikely to have a significant effect on these species and therefore a SIS is not required.

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However, it is acknowledged that cumulative impacts are of concern and it may well be that the future development applications to implement the Dune Management Plan/Lot 500 Management Plan required by the Stage 1 consent and the Ministers consent for the Lenen North land may trigger the need for an SIS for these and other species.

Any SIS would need to address the magnitude and significance of impacts and possible mitigation measures.

* **Potential Impacts on Threatened Birds listed as International Treaties**

“Records are held of the Great Knot utilising Bogangar Beach within 500m of the subject land. The Great Knot is listed under the China - Australia and Japan - Australia Migratory Bird Agreements and as a Vulnerable species on Schedule 2 of the TSC Act. It is recommended that a s5A assessment is prepared for this species and any other threatened migratory bird species likely to occur on the subject lands or the adjacent beach.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May, 2000 is attached.

* **East-West Habitat Connections**

“It is noted that there is no provision in the DAs for habitat connections between the primary faunal habitats. These habitats are the Dunal areas and the environmental protection zones, adjacent to Cudgen Creek, including SEPP14 areas. A corridor, possibly 25m wide is proposed on the former Narui land (Richtech land) which did not form part of the Stage 1 consent. Provision could also be required west of this land to connect the environmental zones.

As a minimum, it is recommended that drainage swales running east-west across the subject lands be replanted with suitable indigenous vegetation sourced locally to assist the east-west dispersal of wildlife.”

Comment

Given the commitment given by the Stage 1 consent, DCP11 and Section 94 Plan No. 19 Master Plan it is considered unreasonable to require the east-west corridors as proposed by NPWS.

It is considered however that the east-west drainage swales, which are located in open space, are suitable to assist the dispersal of wildlife and any consent should be appropriately conditioned to require these lands to be suitably vegetated.

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Taking into consideration the location of the many north-south roads, in particular Coast Road and the Koala fence barrier which act as physical barriers to animals it is likely that only arboreal animals will take advantage of the corridors.

* **Fire Management**

“Section 3.1 of the Stage 1 Bushfire Management Plan states “in terms of bush fire risk, works associated with Stage 1 present little risk potential. Greater potential for bush fire risk will occur with staged development of the subject land which retains that individual plans will be presented with subsequent development applications for stages of the development, it appears that such plans have not been prepared for Stages 2, 3 and 4.

It is recommended that a fire management plan for the subject lands be considered by Council prior to its consideration of the DAs, so that the potential environmental impacts, including impacts on threatened species can be considered.

Depending on the outcomes of the fire management planning, s5A assessments may need to be reviewed. Frequent fire is gazetted as a Key Threatening Process under the TSC Act and its impact on fire sensitive species such as Glossy Black Cockatoo would need to be assessed.”

Comment

It is considered that a Bushfire Management Plan for this proposal is necessary and any consent shall be appropriately conditioned to require this plan prior to the issue of the Construction Certificate.

* **Potential Impacts on the NPWS Estate, Cudgen Creek, SEPP14 and associated Threatened Species Habitat**

“There is potential for the proposed development to impact on the Cudgen Nature Reserve, Cudgen Creek, SEPP14 area and associated threatened species habitat. The primary stress factors identified for the sub-catchment include urban pressure and algal outbreaks.

NPWS recommend a 50m buffer be established to the Nature Reserve and that no development be permitted within this buffer.”

Comment

The proposed buffer is considered to be appropriate and any consent will be appropriately conditioned to require a Section 88B Restriction to provide a 40 metre buffer extending north of the southern boundary of Management Lot 1 (proposed Lot 1 of Stage 2) where it adjoins the Cudgen Nature Reserve. This restriction will provide that no development will be permitted within this buffer. A 10m wide dedicated corridor for a cycleway/walkway is also proposed, thus providing a 50m buffer in total.

* **Potential Impacts on SEPP26**

“It appears that development (Stage 2) is proposed within 100m buffer zone of a SEPP26 Littoral Rainforest. It appears that the environmental impacts of development in this buffer have not been assessed. Although the provisions of SEPP do not apply to land zoned for

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residential purposes, development within the buffer is not supported by the NPWS until such time as an assessment is made of the likely impact including consideration of alternatives and mitigation, where appropriate.”

Comment

The SEPP26 littoral rainforest identified above is located on the western side of the new Coast Road. It is considered that the Coast Road and the Koala barrier fence and fencing proposed for the development should provide an adequate buffer between the development and the SEPP26 land.

2. Department of Urban Affairs and Planning

The application proposes the subdivision of the land within the 7(f) zone to create up to 26 allotments extending into this zone from the neighbouring residential zone. Public carparking is also proposed within this zone. The subdivision of the 7(f) zone requires the concurrence of the Director of DUAP.

DUAP has advised as follows:-

“Concurrence is granted to the subdivision of land within the 7(f) zone under LEP 2000, to create up to 26 allotments in Stage 2, 46 lots in Stage 3 and 53 allotments in Stage 4 extending from the neighbouring 2(e) zone, as described on plans previously submitted to the Department.

Concurrence is granted on the basis of the applicants’ claim that the purpose of the subdivision of the 7(f) zone is for environmental benefit and not for dwelling houses (which are a prohibited in the zone), and subject to:-

- 1. no residential or associated buildings being erected on land zoned 7(f);*
- 2. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;*
- 3. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and*
- 4. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.*

Comment:

The primary objectives of the 7(f) zone are as follows:-

- “* To identify lands susceptible to coastal erosion and protect them from inappropriate development;*

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* *To protect and enhance the scenic and environmental values of the land”.*

It is considered that the encroachment of the beachfront lots into the 7(f) zone is inconsistent with the zone objectives. Further, it should be noted that dwelling houses are prohibited in the 7(f) zone and it would therefore appear that a subdivision to create an allotment for the purposes of the erection of a dwelling house is also prohibited.

DUAP has granted concurrence for subdivision in the 7(f) zone and the applicant has also provided details on landscaping within the 7(f) zone. The landscaping plan provides a cross section of the development where the beachfront lots are within the 7(f) zone and backs onto the north/south cycleway/walkway. This plan generally provides that the beach front lots in the 7(f) zone will have landscaping consistent with the north/south cycleway. This should ensure that the landscape between the beachfront lots in the 7(f) zone and the cycleway/walkway is uniform. Fencing to the rear of the beachfront lots in the 7(f) zone is also to be consistent with the fencing to the Crown Reserve (Lot 500) to also allow consistency and a uniform appearance.

Each of the lots in the 7(f) zone all propose to have a gate erected on the rear fence to allow access to the beach. Details on these gates have not been provided but it is considered that these gates should be consistent with the fence along the rear boundary.

In addition, the applicant has also provided their own legal advice in relation to the subdivision in the 7(f) zone as follows:-

“We have viewed the proposed plan of subdivision for Stage 2 of the Kings Beach Development. Part of this site is zoned 7(f) (Environmental Protection (Coastal Lands) Zone). This 7(f) land comprises a corridor strip on the eastern side of the “foreshore” blocks.

We have examined the provisions of the Tweed Local Environmental Plan 1987. The objective of the 7(f) zone is “to identify lands susceptible to coastal erosion and protect them from inappropriate development”.

Within zone 7(f) “Beach maintenance” may be carried out without development consent. Uses such as ‘environmental facilities”, “recreation areas” and “works for drainage and landfill” require development consent but are otherwise permissible. “Environmental facility” is defined by the LEP to mean-

“A structure or work which provides for -

- (a) nature study or display facilities such as walking, boardwalk, observation decks, bird hides or the like; or*
- (b) environmental management and restoration facilities such as beach restoration, dune restoration or the like”.*

Clause 24 of the LEP applies to land in a number of zones including the 7(f) zone. In considering whether to grant development consent for land zoned 7(f) clause 24(2) requires that Council take into consideration the relevant principles and criteria referred to in Schedule 3 of the LEP. Relevantly item 7 of Schedule 3 requires Council to have

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regard to the scenic value of the land and the effect that the carrying out of development would have on the retention of existing vegetation on the land and the impact of any proposed building or structure on the scenic quality of the locality. Further item 12 of the Schedule requires Council to consider the proposed development in terms of the assessment of coastal erosion and design considerations given for the reduction of the potential hazard.

Clause 24(3) provides that the Council may consent to the subdivision of land for a purpose permissible in the zone (zone 7(f) other than for a dwelling house or agriculture, provided the Council is satisfied that the size and the shape of the allotment to be created is suitable for the proposed purpose.

Clause 24(3) makes it clear that dwelling houses could not extent into the 7(f) zone. This does not prevent however the "foreshore" allotments extending down into the 7(f) zone. The use of those parts of the allotments within the 7(f) zone must however comply with clause 24(3) and the use of the 7(f) part of the allotment must be for a purpose permissible in the zone. For this reason the Stage 2 application must clearly identify that the 7(f) zoned land will be managed by the future individual foreshore lot owners who will be involved in the ongoing environmental management and restoration of this area including bush restoration featuring the removal of noxious weeds and with erosion prevention works such as the planting of ground covers. Environmental facilities would also be provided by way of display and access facilities such as walking, observation decks, bird hides etc.

In addition to these private environmental works, public pedestrian access to the beach will be provided by several linkages. These linkages will enable the public to walk across the 7(f) land so that the environmental quality of this area can be observed and studied.

*We note that the decision of the former Chief Judge of the Land and Environment Court, Justice Cripps in *Argyropoulos v Canterbury Municipal Council* (1988) 66 LGRA 202 confirms the correctness of the above advice. That is to say, provided the 7(f) land is designated for a permissible use and the residential development will not extend across the zoning boundary then the single allotments may straddle the two zones. The subdivision accordingly can be a Torrerns subdivision in which each of the foreshore blocks extend into and include the 7(f) land."*

It is concluded that the intent of the Stage 1 consent was to separate the 7(f) zone as non-subdivided land subject to community title and in effect as private open space from the development to preserve the coastal environment and restrict development (structures) in the 7(f) zone other than landscaping, fencing and works associated with the north/south cycleway/walkway. This would generally be consistent with the zone objectives.

This has been supported by the Director Development Services and the applicant has been advised of his position. The applicant disagrees with this advice and argues that the intent of the Stage 1 consent was not to separate the 7(f) zone from the development, in particular subdivision.

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EVALUATION

A complete assessment of the application against the matters for consideration under Section 79C(1) of the Environmental Planning & Assessment Act, 1979 is provided below.

(a) (i) **Planning Instruments**

Tweed Local Environmental Plan 2000 (TLEP 2000)

The land, the subject of the proposed subdivision is zoned Part 2(e) Residential (Tourist) and Part 7(f) Environmental Protection (Coastal lands). The proposed development is permissible with the consent of Council.

There are a number of clauses in the TLEP 2000 which require consideration. These are discussed below.

Clause 17 - Social Impact Assessment

The objective of this clause is to ensure proper consideration of development that may have a significant, social or economic impact. In this instance, it is considered that this proposal will contribute to a significant social or economic impact.

This clause also provides that when Council considers that a development is likely to have a significant social or economic impact in the locality or Shire, as the case may be, the Council may only grant consent to the development if it has considered a social impact statement in respect of the proposed development.

A social impact statement has not been provided with this application.

The application indicates that the impacts of the proposed development have already been addressed as part of the development application that culminated in the Consent Order S96/135.

It is considered that a Social Impact Assessment is not necessary as this application is generally consistent with the Stage 1 consent and some positive economic and social impacts will result.

Clause 20 - Subdivision in Zone No. 1(a), 1(b), 7(d) and 7(l)

The land within the subject land zoned 7(l) is not proposed to be subdivided as part of this application. The subject site is not affected by any 7(l) zone.

Clause 22 - Development near Designated Roads

The Coast Road is a designated road and the subject site has frontage to the Coast Road.

Clause 22(4) provides as follows:

“(1) The consent authority may grant consent to development on land to which this clause applies only if it is satisfied that:

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- (a) *the development (because of its nature, appearance, cumulative effect or illumination, or the intensity or the volume or type of traffic likely to be generated, or for another similar reason) is unlikely to constitute a traffic hazard or materially reduce the capacity or efficiency of the designated road, and*
- (b) *the location, standard and design of access points, and on-site traffic movement and parking arrangements, would ensure that through traffic movement on the designated road is not impeded, and*
- (c) *the development, or proposed access to it, will not prejudice any future improvements to, or realignment of, the designated road, and*
- (d) *where the land is in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development is of a type that necessitates a location in proximity to the designated road for reasons other than only commercial advantage, and*
- (e) *the development is of a type that is not sensitive to traffic noise or, if it is, it is located or adequate measures are included to ameliorate any potential noise impact, and*
- (f) *the development would not detract from the scenic values of the locality, particularly from the point of view of road users, and*
- (g) *where practicable, access to the land is provided by a road other than the designated road, and*
- (h) *in respect of any application for commercial or retail development near the Pacific Highway in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development:*
 - (i) *would not compromise the Highway's function as the North Coast's primary inter- and intra-regional road traffic route, and*
 - (ii) *would not contribute to the need to expend public money on the Highway to overcome the effects of ribbon development, and*
 - (iii) *would not compromise highway safety and efficiency, and*
 - (iv) *would not cause or contribute to the shifting of the retail/commercial foci of any town from the town centre to a highway-orientated site."*

The application proposes only one access directly to the new Coast Road. The access point from the Coast Road was constructed as part of Stage 1 of the development.

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Accordingly, it is considered that the proposal is acceptable in terms of planning for the efficiency of the Coast Road.

Those lots that are adjacent to the new Coast Road will not have direct access to it. Acoustic fencing and landscaping is to be provided between the Coast Road and the development to ameliorate any potential noise impacts. However, the details on the acoustic fencing and landscaping have not been submitted with the application. Accordingly, Clause 22 is not completely satisfied.

Clause 27 - Development in Zone 7(f) Environmental Protection (Coastal Lands)

As discussed in the consultation section of this report the application proposes the subdivision of the 7(f) zoned land to create 26 lots extending in this zone from the neighbouring residential zone.

DUAP have granted concurrence and taking into account the applicant's submission and details on fencing and landscaping in the 7(f) zone and given that no buildings are proposed in this zone, it is considered that subdivision in the 7(f) zone is satisfactory under the circumstances.

Clause 29 - Development adjacent to Zone 8(a) National Parks and Nature Reserves

The Cudgen Nature Reserve is located immediately to the south of the subject land. It is considered that the development is unlikely to significantly impact on wildlife habitat.

The Stage 1 application was supported by a Species Impact Statement which identified the likely effects of the development on flora and fauna found in the locality. In addition, this application is also supported by a flora and fauna assessment which generally concludes that the development is not likely to adversely impact on any flora and fauna in the locality. However, comments from the NPWS in relation to this report have only been received on 17 May, 2000 and are addressed separately in this report.

The subject land (proposed Lot 1) immediately to the north of the Cudgen Nature Reserve is identified in the application as a possible future health resort site. An application for a health resort has been submitted to Council and is currently being assessed. This application will also need to take into consideration the likely effects of that development on the flora and fauna found in the locality.

Clause 35 - Acid Sulfate Soils

The applicant has submitted an acid sulfate soil management plan with the application to the satisfaction of Council's Environment and Community Services.

North Coast Regional Environmental Plan 1988 (NCREP 1988)

Clause 15 - Wetlands and Fisheries Habitat

This clause provides that Council shall not consent to an application to carry out development within adjoining or upstream of a coastal or inland wetland or fisheries

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habitat area or within a drainage catchment area of a wetland or fishery area unless it has considered the following matters:-

- a. the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat;
- b. the need to conserve the existing amateur and commercial fisheries;
- c. any loss of habitat which will or is likely to be caused by the carrying out of the development;
- d. whether an adequate foreshore reserve is available and whether this is adequate public access to that reserve;
- e. whether development would result in pollution of the wetland or estuary and any measures to eliminate pollution;
- f. the proximity of aquatic reserves dedicated under the Fisheries Management Act, 1994 and the effect the development will have on the reserves;
- g. whether the quality is in an area of protected land as defined in Section 21AB of the Soil Conservation Act, 1938 and any measures to prevent soil erosion;
- h. the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved;
- i. the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority in relation to the river, stream, wetland area or catchment.

In regard to the above matters the following comments are provided:-

- (a)-(c) The application is supported by a water quality management and monitoring program, a erosion and sedimentation control plan and a acid sulfate soil management plan. These plans are satisfactory and should ensure that the quality of the water and habitat in and near Cudgen Creek is not significantly impacted upon.
- (d) There will be no affect on access to the foreshore of Cudgen Creek.
- (e) See comments in relation to (a-c) above.
- (f) There are no known aquatic reserves located in proximity to the site.
- (g) Cudgen Creek is not identified in the area of protected land.
- (h) The proposal will not result in the removal of vegetation along the water course.
- (i) There have been no recent environmental audits or water quality studies by the Department of Water Resources or Environment Protection Authority

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containing recommendations to the river, streams, wetland area or the catchment.

WBM Oceanics Australia prepared a Estuary Management Plan for Cudgen Creek on behalf of Tweed Shire Council, dated August 1997.

The Management Plan for Cudgen Creek has been prepared, taking into account habitat enhancement/conservation options, urban development, water quality, bank stability and opportunities for increased recreational usage of the Creek. The Management Plan is supported by technical analysis of specific issues, assessment of environmental benefits/debits and the need for further studies required to implement works. Additionally, priorities and costings to undertake the management actions described in the Management Plan are provided.

It is considered that the proposal is generally consistent with the principles of this plan.

Clause 29A(1) - Natural Areas and Water Catchment

This clause provides that Council must not grant consent for the clearing of natural vegetation in environmental protection, scenic protection or escarpments preservation zones unless it is satisfied that:-

- a. the wildlife habitat will not be significantly disturbed by the proposed development,
- b. the scenery will not be adversely affected by the proposed development, and
- c. an erosion and sedimentation control plan will be implemented which will successfully contain on the site any erosion and sediment caused by the development.

As discussed, the beach front lots are partly located within the 7(f) zone, this is also the case for the public car parking area. This is adjacent to the foreshore cycleways/walkway which was approved by the Stage 1 consent and also passes through the 7(f) zone. In regard to the above matters, the following comments are provided:-

- a. The application is supported by a flora and fauna assessment which generally concludes that the proposal is unlikely to significantly affect any threatened species or habitat.
- b. It is unlikely that the scenery of the locality will be adversely affected by the proposal. The land in question will be subject to extensive landscaping and development restrictions.
- c. An erosion and sediment control plan accompanies the application and is satisfactory.

Clause 32B - Coastal Lands

The application is affected by the NSW Coast Government Policy. See section titled NSW Coastal Policy 1997 of this report.

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In general, the proposal will not impede public access to the foreshore. Adequate public access to the beach will be available following completion of the development.

Clause 33 - Coastal Hazard Areas

It is considered that the proposal is generally consistent with this clause. The Crown land (Lot 500) to the east of the subject site will be subject to a Management Plan, to be approved by Council and the Department of Land and Water Conservation. This land will be extensively rehabilitated with native species.

The application also identifies a number of access points across the foredune areas which provide suitable public access from the site to the beach. However, these trails are not proposed as part of this application and they will need separate approval from Council and the Department of Land and Water Conservation.

Clause 43 - Residential Development

This clause provides that Council shall not grant development consent for residential purposes unless,

- a. it is satisfied that the density of the dwellings have been maximised without adversely affecting environmental features of the land;
- b. it is satisfied that the proposed widths are not excessive for the function of the road;
- c. it is satisfied that, where development involves the long term residential use of caravan parks, the normal criteria for the location of dwellings, such as access to services and visible suitability of the land have been met;
- d. it is satisfied that the road network has been designed so as to encourage the use of the public transport and minimise the use of private motor vehicles; and
- e. it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.

The significant environmental constraints on the land were identified in the Stage 1 consent and subsequently significant amounts of land identified for public open space and environmental protection will be dedicated for these purposes. However, the density of dwellings have not been maximised for this proposal and is not in accordance with the estimated population yields identified in DCP11 - Kings Beach. For more information on the population yields see the section on DCP11 - Kings Beach.

The proposed road hierarchy and public transport issues will be discussed later in this report.

No caravan parks are proposed and the sedimentation and erosion control plans accompanying the application is considered to be satisfactory.

Clause 66 - Adequacy of Community and Welfare Services

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This issue was considered in the formulation of the Section 94 contributions plan applicable to the Kings Beach development. The staged provision of land/or contributions for provision and upgrading of community facilities is proposed, including community centre/multi-use hall, youth facilities, library facilities and health care facilities. Other local and subregional facilities are available at nearby Tweed Heads, Murwillumbah and Kingscliff including schools and hospitals.

Clause 81 - Development Adjacent to the Ocean or a Waterway

This clause provides that Council shall not consent to development on land within 100m of the ocean or any substantial waterway unless it is satisfied that:-

- a. there is sufficient foreshore open space which is accessible and open to the public within the vicinity of the proposed development;
- b. buildings to be erected as part of the development will not detract from the amenity of the waterway; and
- c. the development is consistent with the principles of any foreshore management plan applying to the area.

A 10m wide cycleway/walkway is proposed along the eastern boundary of the subject land running north/south. Adjacent to this path are a number of proposed public parks and parking areas. To the east of the pathway is the Crown Reserve which will have a number of access ways through it for the public to gain access to the beach. This reserve will be fenced for conservation purposes.

No buildings are proposed as part of this application. However, it is unlikely that any buildings will significantly detract from the amenity of the waterway taking into consideration the extent of the Crown Reserve between the development and the beach.

As previously discussed, a Dune Management Plan is to be prepared for the Crown Reserve.

State Environmental Planning Policies (SEPPS)

SEPP11 - Traffic Generating Developments

In accordance with the provisions of this SEPP, the application was considered by the Local Traffic Committee. A summary of their comments is provided below.

“The application proposes the creation of an 83 lot residential subdivision together with necessary infrastructure.

This is referred to the Local Traffic Committee in accordance with the mandatory provisions of SEPP11.

Note that the original development application for Kings Beach Stage 1 was referred to the Local Traffic Committee for comment, notwithstanding that it was for only for some 14 lots and the adoption of a master plan for an ultimate population of some 5600 people.

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The current Stage 2 development application for some 83 residential lots gives the LTC the opportunity to request the type of construction of the intersection, which could be a roundabout or traffic signals, which the RTA has given in principle support to.

The new section design speed is currently 80km/h and the Committee noted that a traffic measurement report would be supplied by the developer. It was noted that the two intersections would be about 1km apart and that there is no frontage of residences to Coast Road. The internal layout has a Court approved master plan and this development application is generally consistent with the master plan.

It was noted that the current intention is that the link with Kingscliff is being retained as a low speed link, with a street character. The RTA representative asked when the other lots would be developed, however this was not known as market forces will determine this.

Pedestrian issues on Lot 8 were highlighted as a passive recreational usage by residents. Just opposite will be Kings Forest and therefore the collector road intersection will probably be the pedestrian area and the movements from Kings Forest will be across the bridge. There is also a cycleway along the full length of the foreshore.

An underpass was discussed as practicality and safety issues were of concern and it was noted that an underpass did not eventuate as utilities could not be controlled and drainage issues arose.

Four lanes and signalisation of intersections is already a condition on the development. The RTA representatives noted that it would be an ongoing development and road issues assessed as it goes along. Reserve widths have been allowed to recognise the needs that are generated as the development evolves.

The Committee supported the above allowances in the development.

The network of roads will facilitate bus routes and cyclists. The Committee recognises the future potential conflicts between pedestrian design lines to the west of the Coast Road and that this will have to be accommodated in the intersection designs.”

SEPP44 - Koala Habitat Protection

The flora and fauna assessment submitted with the application provided a SEPP44 assessment and indicates that the subject site is of an unknown value as habitat for koalas. The subject site does not support any primary or secondary koala feed trees and is considered highly unlikely to provide koala habitat and therefore a plan of management is not required.

ii. The Provisions of any Draft Environmental Planning Instrument

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There are no relevant draft instruments.

iii. Any Development Control Plans (DCPs)

DCP11 - Kings Beach

This is the principle DCP to guide future development and management of the Kings Beach development site. The proposal involves land at the southern end of the site known as Management Lots 1, 2, 12 and part 13. The DCP provides specific Development Control Plan provisions which articulate the design and development principles underpinning the development plan which was a component of the negotiated settlement between Lenen Pty Ltd and Tweed Shire Council. Those that specifically relate to this application are discussed as follows.

Clause 3.3 - Estimated Population Yields

The estimated population yields for management lots 1 and 2 provided by the DCP are 1170 persons. The application indicates the population yield for lots 1 and 2 at 837 persons, which is well below the estimate of 1170. This estimate of 837 persons is based on the beachfront and inland lots and the number of townhouses/terraced apartments in lot 2 but does not take into consideration the number of persons to be accommodated in the resort site (proposed Lot 1) within management lot 1. Should proposed Lot 1 (resort site) be included in the estimated population yields it is considered that the population yields for management lots 1 and 2 provided in the DCP will still not be achieved.

In addition, the application provides that the occupancy rates for the beach front lots inland lots is 3 persons per dwelling. However, it should be 2.6 person per dwelling in accordance with Section 94 Plan No. 19 - Kings Beach/Kings Forest.

In addition, the application provides occupancy rates for medium density (townhouse/terrace apartments) at 2.3 per dwelling whereas the Section 94 Plan provides 1.7. The application also provides an occupancy rate of 1.8 persons per room for tourist development (resort) whereas the Section 94 Plan provides 1 person per bed.

Obviously, the occupancy rates provided by the application are not consistent with the Section 94 Plan No. 19. Subsequently, the estimated population yields provided by the applicant are not consistent with the DCP.

As this proposal is part of a staged development over the entire Kings Beach site, it is possible that the total population yields may be achievable when the remainder of the site is development and subsequent applications submitted.

In addition, the proposal is not for the full development of the management lots 1 and 2 and some sites, notably the resort site (proposed Lot 1) will be subject to future development applications at which stage they will be assessed to ensure that the population yields in their respective lots are achieved.

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Should the population yields not be achievable then the DCP and the Section 94 Plan will need to be amended to reflect the expected population yields in the event that Council gives approval to this application. This may require amendment to the Stage 1 consent also.

The applicant has reviewed the population yields for the Kings Beach site, including the Richtech land (formerly the Narui Site) and has provided the following:

“We refer to our recent minutes sent to you on April 10, 2000 and specifically direct your attention to Item 4 (note 5) in the Minutes of the April 3, 2000 planning and design meeting.

At the meeting we agreed to review the population figures in light of the most recent Stage 2-4 applications, including but not limited to the likelihood of Stages 5 and 6 being lodged in the near future and the fact that certain development sites, namely the tourist and resort areas, were considered likely to have different yields than those which had been initially proposed at the time of the Consent Order in 1998.

In addition, the inclusion of the Richtech site (previously known as the Narui Land) in the Stage 3 application needs to be brought into the “development planning loop” in order to ascertain the most likely final development scenario as we are best able to determine in mid-April, 2000.

As we all agreed, the need for flexibility was accepted as a desirable planning tool and there appeared to be a general consensus that some variation, in the order of 10%, was likely to be reasonable interpretation of the Consent Order’s direction that development be “generally in accordance” with the submitted Development Plans.

As you know, the Consent Order incorporated estimates for the subject site (excluding the Richtech land) of 5,600 within the 7 Management Lots. Independently, the Richtech land had been estimated to generate a population yield of around 777 persons, Based upon extrapolation, this would give a yield target of around 6,380 (rounded) give or take 10%, for the total development area (ie. both sites).

With a 10% variation as an allowable “flexibility principle”, this would give a target range varying between 5,742 and 7,018, given the centroid figure of 6,380.

Having reviewed our current population projections in light of the development scenarios, we believe that the development can readily achieve a population of approximately 5,820 which is only between 8-9% below the aggregated expectations for the original Consent Order land (ie 5,600) plus the Lenen land (ie. 777). In other words, as currently we are best able to ascertain, when

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completed, the development should have at least 5,820 persons as opposed to the projected figure for both sites of 6,380.

We therefore suggest that a reasonable interpretation of the Consent Order estimates would be to allow the range to fluctuate between 5,040 and 6,160, which is a 10% variation either side of the 780 yield figure.

Taking the lowest and highest yields from both sites (ie. -10% and +10%) gives the range of figures noted above, namely 5,742 and 7,020.

We also draw your attention to the fact that the Peterson's health spa (with plans for around 90 units or 180 persons) proposal at the southern end of the site, whilst included in the Consent Order figures, has not been included in the estimates set out below in the Table. If this development is included, then the yield, per the Table set out at the end of this letter, rises to 6,000!

We further note that development Site B (Beachside Village) can accommodate apartments in place of the holiday cottages indicated in the Concept Master Plan. We are currently investigating this concept with the client. This could increase the yield on this site from 80 units (160 persons) to perhaps 150 units (300 persons).

Darryl and Nick, we believe that other development sites indicated on the Concept Master Plan could have their yield totals increased in order to achieve the target total as indicated in the attached Table, inclusion of Peterson's land does achieve this!

As indicated at the April 3, 2000 meeting, the final population totals will, to a significant extent, be determined by the market. Accordingly, the exact yields for each resort and medium density development complex site will depend on unit sizes and configurations, site planning concepts, market demands and other issues which cannot be accurately predicated at this time.

We request therefore that Council favourably consider the suggested approach in this matter by adopting the "flexibility principle" as the general guideline. This will remove the somewhat academic barriers to both our deliberations and negotiations.

The attached Table is transmitted for information purposes and should help to serve as a "working document" subject, of course, to change as we firm up on the specific projects as they come to fruition. We believe that if we jointly agree to this approach it will be seen as the major drawcards of the Casuarina Beach development.

Your earliest reaction to this proposal would be appreciated as we are well into the detailed planning for Stages 5 and 6 as well as discussions with other key resort developers and operators.

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Finally, we would make the point that this recommended approach not only accommodates the Estimates for Population Yields per Consent Order No. 1, but also brings the Richtech land, which was not part of the Consent, into line with the philosophy and general development planning concepts enunciated in the initial Consent Order Development Plan.

In this regard, this approach removes any “hurdles” or confusions which might be seen to have arisen by the changes which further planning investigations have, inevitably, demanded.”

Potential Population Yield for Casuarina Beach

(April 14, 2000)

<i>Product</i>	<i>Total Yield</i>	<i>Population Multiplier</i>	<i>Population Total</i>
<i>Beachfront Lots</i>	<i>130</i>	<i>X3</i>	<i>390</i>
<i>Beach View Lots</i>	<i>17</i>	<i>X3</i>	<i>51</i>
<i>Dry Lots</i>	<i>462</i>	<i>X3</i>	<i>1,386</i>
<i>Units on Medium Density and Resort Sites</i>	<i>1,997</i>	<i>X2</i>	<i>3,994</i>
<i>TOTAL</i>	<i>2,606</i>		<i>5,821</i>

Given that the population yields in the Stage 1 consent are somewhat arbitrary, it is considered that the reduced yields are acceptable, subject to formal amendment of the DCP and Section 94 Plan to reflect the changes and to include the former Narui Coastal lot.

Clause 3.5 - Urban Design Principles

1. The east/west cycleway/footpath linkages are not as per the approved development plan but the linkage/permeability shown on the Stage 2 master plan is considered to be satisfactory.
2. The fencing of the boundaries of the private open space/beach maintenance areas is generally consistent with the fencing protection of the dual areas, ie. 1.2m high fence with wooden posts with high quality wire mesh. A gate will also be provided to each allotment to allow direct access to the cycleway/walkway and beach.

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6. This provides that approximately 500 public car parking spaces are to be provided within the Kings Beach site. The concept master plan for the whole site appears to provide for about 550 spaces. Accordingly, the proposal is supported in this regard.

This application provides 24 car parking spaces between the resort site (proposed Lot 31) and the southern residential lots. In addition, the development master plan for Stage 2 also provides a further 146 spaces within the 7(f) land and forms part of the beach side village (proposed Lot 30).

8. The application identifies the number of public accesses from the beach to the site. This relates to their position on the ocean foreshore road (esplanade), nodes of public open space, retail and commercial activities and public car parking provisions. Each of these public accesses are generally separated by approximately 400 metres and are considered to be consistent with the DCP.

However, these public accesses do not form part of this application. A separate application(s) will need to be submitted for their approval/construction.

13. The DCP provides that local parks shall be provided as part of the development of the management lots and that a minimum of 2000m² of useable recreation area and be not more than 250m from any dwelling and have public road frontage for a minimum of 50% of the perimeter frontage of the local park.

In this instance, proposed Lots 2 to 5, 58 to 60 and 52 to 57 do not comply as these lots are not within 250m of a public park (maximum disturbance about 300m). Although 10 lots do not comply, it is considered that the proposal is generally consistent with this clause. Of the 10 lots that do not comply it is considered that the connectivity of the road and pedestrian/cycle network allows for suitable access from these lots to open space within the development.

14. This provides that all nodes of retail and commercial activity with integral public open space and community facility provisions shall generally be within 400m of any dwelling within the development.

In this instance some lots do not comply. However, as mentioned above (13), it is considered that the overall development is generally consistent with this clause. Again, it is considered that the development allows connectivity between the roads and the cycleway/walkway network.

15. This generally provides that acoustic fencing and landscaping is to be provided to the east of the new Coast Road. Any consent will be conditional appropriately to provide these details to Council's satisfaction.

18. There will no direct vehicular access from the relocated Coast Road other than via approved intersections.

The proposal provides one access and is consistent with this provision, as discussed earlier.

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23 & 24

A water quality management and monitoring program has been submitted with the application and is considered to be satisfactory.

26. It will be a condition of any consent that all existing Bitou bush plants be removed and the disturbed areas shall be appropriately treated to prevent dust nuisance and soil erosion.
31. An acid sulfate soil management plan has been submitted and is generally satisfactory and any consent will be conditioned appropriately.

NSW Coastal Policy 1997

The DCP also takes into consideration the NSW Coastal Policy 1997. It is considered that the proposal is generally consistent with the relevant objectives of this Plan. The policy generally provides that development needs to take into consideration a number of objectives which attempt to protect the natural environment. The specific objectives of the policy which relate to this development are summarised as follows:-

- * Identify conservation values of land and aquatic environments;
- * Improve and maintain water quality;
- * Manage coastline and estuarine environments for public interest and ensure their vitality;
- * Impacts of natural processes of a high priority;
- * Design development to compliment surrounding development;
- * Increase public access to foreshores.

All the above objectives have generally been discussed throughout this report and it is considered that the development is unlikely to create any significant adverse environmental impacts on the coastal environment.

DCP16 - Subdivision Manual

The proposal is generally consistent with the various standards of this plan.

DCP39 - Energy Smart Homes Policy

This plan was adopted on 7 April 2000 and came into effect on 10 April 2000 and subsequently needs to be considered. It is accepted, however, that this application was submitted well before this plan was adopted and this would account for any inconsistencies with this plan.

This DCP has been developed in response to the growing community desire to achieve greater efficiency from domestic use. It stems from a general concern about greenhouse gasses generated by energy use, their affect on the environment and in particular, contribution to global warming. The DCP shows how energy efficiency can be achieved

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in all new residential subdivisions and buildings, including alterations and additions to existing buildings. It includes design alternatives - such as passive solar design and solar water heating - that will dramatically reduce the demand for non renewable energy, thus reducing both costs and air pollution and reducing the level of comfort in the average Australian home.

Section 4.0 of this Plan specifically relates to subdivisions and provides preferred outcomes for the following:-

- * Street orientation;
- * Lot orientation, size and shape;
- * Access;
- * Public transport;
- * Setbacks; and
- * Street lighting

A solar proficient subdivision will ensure that the overall development is significantly more energy efficient than a conventional subdivision.

1. *Street orientation*

- * Align streets east/west and north/south wherever possible
- * North/south streets should be within 20 degrees west and 30 degrees east of true north
- * East/west streets should be within 30 degrees south and 20 degrees north true east

In this regard the majority of streets proposed are either aligned north/south or east/west and are consistent with this outcome.

2. *Lot orientation, size and shape*

- * Lots should be orientated so that one axis is within 30 degrees east and 20 degrees west of the true solar north
- * North facing slopes improve opportunities for solar access, small lots are therefore best suited to north facing slopes with gradients of less than 15%
- * South facing slopes impose a penalty on solar access, therefore, large lots/lowest densities are best suited to north to south facing slopes or other areas where solar access is poor
- * The north side of east/west aligned streets is suitable for narrow lots

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- * Lots aligned on an east/west axis generally need to be wider than lots aligned on a north/south axis to prevent undue shadow effects on lots to the south
- * Where streets are within the acceptable orientation range, use rectangular shaped lots
- * Sloping sites are not suitable as flat sites for smaller lots

It is considered that all lots have at least one axis within 30 degree east and 20 degrees west of the true solar north.

The land is relatively flat and following earthworks it is considered that the topography of the land won't significantly change. Accordingly, the issue of north and south facing slopes is not a significant issue in this instance.

All lots on the northern side of the streets are relatively narrow and should comply in this regard.

The lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis. Accordingly, this is not consistent with the DCP and could have undue shadow effects on the beachfront lots.

3. *Access*

- * Footpaths are designed to access public transport routes
- * Subdivision design includes, clearly marked bicycle network, marked kerbside bike lanes, dedicated cycleways, links to regional cycleways
- * Subdivision design should maximise the ability to travel directly between any given destination and origin

4. *Public Transport*

- * Subdivision design should allow for circuitous public transport routes that maximise the number of lots within a short walking distance to potential transport routes
- * Suitable areas for bus stops and lay back areas should be identified
- * Long cul-de-sacs should be avoided as these reduce accessibility to public transport

It is considered that the proposal is generally consistent with the access and public transport principles identified above.

5. *Setbacks*

- * Variable setbacks and zero lot lines are the means of maximising solar opportunities, especially with small or narrow lots. Setbacks are manipulated to maximise solar access for all lots.

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- * Preferred setback lines can be shown on subdivision plans to help builders, designers and home buyers make the best use of solar energy.

The Architectural Design Regulations (to be discussed later in this report) provide some variations to the front setbacks.

Section 94 Contribution Plans

Section 94 Contribution Plan No. 19 - Kings Beach/Kings Forest presents a strategy for the provision of structured and unstructured open space and community facilities. Those sections of the plan that specifically relate to this development are discussed as follows.

5.0 Expected Population

This plan indicates that the expected population of Kings Beach is 5600 persons, with 3000 permanent residents and 2600 tourists.

As discussed in Section (iii) titled Development Control Plans of this report, it is unlikely that the population yields will be achieved for this proposal. The DCP and Section 94 Plan will need to be amended to reflect this.

The occupancy rates and the population yield for Stage 2 are not consistent with those in the Section 94 Plan.

7.0 Timing of Contributions

Credit

Approximately 5.5ha of active open space is to be dedicated as part of the Stage 1 consent being management lots 9, 10 and 11.

However, as discussed in 5.0 above the population yields identified in the table for management lots 1 and 2 have not been achieved by this application. Accordingly, this could have implications on the provision of the active open space credits within each of the management lots. Subsequently, the Section 94 Plan and the DCP for this site will need to be amended to reflect the current figures.

14.0 Open Space

Structured Open Space

The developer is to dedicate a total of 5.5ha of structured open space at no cost to Council in conjunction with the Stage 1 consent. These being management lots 9, 10 and 11. These lots are not within the land subject to this application.

The amount of structured open space to be dedicated (5.5ha) has been calculated on the population yields provided by the DCP. Any variations to those yields, which is the case for this proposal, may have implications on the amount of structured open space to be provided. Accordingly, the DCP and Section 94 Plan will need amending to reflect this.

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At the moment the population yields provided by the applicant are below those provided by the DCP. Accordingly, this proposal does not require any additional structured open space above the 5.5ha.

A monetary contribution would be required for the embellishment of the structured open space.

Passive Open Space

The developer is to dedicate and embellish Lots 12, 13 and 14 as public open space in conjunction with the Stage 1 consent. These lots together with the proposed parks for this application are to be suitably embellished by the developer.

Public open space needs to be provided in accordance with the Section 94 Plan for the site. In respect of the casual open space, the Section 94 Plan requires that a minimum area be 2000m² and not be more than 250m from any residential dwelling and each parks perimeter should have at least 50% frontage to a public road. As discussed earlier it is considered that the development is generally consistent with this.

Again, as discussed above for the structured open space the estimated population yields for Lots 1 and 2 are unlikely to be achieved and subsequently this may have implications on the provisions of casual open space. However, the yields provided in the application are below those provided by the DCP and the proposal is unlikely to require any additional casual open space above that already provided or required by the Section 94 Plan.

15.0 Cycleways

The proposal is considered to be generally consistent with the Section 94 Plan.

Section 94 contributions will be applicable.

16.0 Community Facilities

Contributions will apply for the provisions of the following facilities:-

- * community centre/multi-use hall
- * youth facilities
- * library facilities
- * healthcare facilities

The works program in the Section 94 Plan indicates the appropriate threshold at which to provide the facilities. Special factors may arise requiring provision of a facility before the stage threshold is reached.

The community facilities are likely to be located within the town centres/commercial/retail areas for convenience.

(b) The Likely Impacts of the Development

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Environmental Impacts

The proposal is unlikely to create any significant adverse environmental impacts on the locality. To reduce any potential impacts the applicant has submitted a sedimentation and erosion control management plan to control and minimise the pollution caused by soil erosion on downstream waterways during the construction project. This plan is generally satisfactory.

The applicant has also submitted a water quality management and monitoring program. This plan is also considered to be satisfactory.

These plans and the acid sulfate soil management plan should ensure that the quality of the water at Cudgen Creek is not adversely impacted upon.

The development of the Kings Beach site will inevitably have some impact on the environment. What Council needs to consider is what is an acceptable impact given the history of the site. To reduce these impacts a number of management plans and reports have been prepared. These reports and the management plans have helped to achieve a subdivision design and to minimise the impact of the proposal on the environment from the construction stage to the completion. These reports and management plans will be incorporated into any consent, where appropriate.

A flora and fauna assessment and a report on the impact on the Common Blossom Bat habitat accompanied the application.

The conclusions from the report on the impact on the Common Blossom Bat habitat prepared by James Warren and Associates is as follows:-

“Stage 1 has commenced and has resulted in the loss of 14.17ha of coastal banksia which involves the loss of 3,325 plants representing 10% of the overall plant availability prior to Stage 1.

Stage 2 (management lots 1 & 2) of the proposed development will impact upon the potential feeding habitat of the Common Blossom Bat within the Kings Beach area. In particular, the coastal banksia foraging habitat will be impacted. This impact will affect 14.95ha of existing low density and 4.3ha of existing medium density banksia stands. It has been estimated that this equates to 2,534 individual plants.

Stage 2 development will contribute to a 7% overall reduction in availability of habitat in the locality. Cumulatively, the losses will total 17% of overall availability prior to commencement of works. The overall area of high quality habitat in the Kings Beach land would increase from 61.88ha to 28.81ha following development of Lots 1 and 2. The cumulative impact of Stage 1 (west of the Coast Road) and development of Lots 1 and 2 will reduce the potential carrying capacity of the site from 1,082.9 bats to 504 bats in the short term. It is highly unlikely that these population numbers exist on or near the site.

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Whilst this report has limited its assessment to the development area, it is to be recognised that extensive suitable natural forage habitat exists presently on Lot 8, Cudgen Nature Reserve and other natural areas with the accepted forage range of this population of bats.

The loss of coastal banksias due to Stage 2 development will occur within 2km of the likely roost area for the local bat population (SEPP26 - Littoral Rainforest Habitat). Losses within this zone can have a more significant impact on food availability than losses from 2-4km away from the roost site. The losses due to Stage 2, although in this closer zone, are mitigated to a greater extent by the fact that there are extensive areas of native forest and east to the west and south of the roost habitat (Cudgen Nature Reserve). It is considered that the loss of forage habitat in Stage 2 will have no great impact on the bats foraging success than if it was further away.

Greg Richards (Pers. Comm 1999) stated local populations is likely to compromise approximately 170 bats. Clearly this population will still have excess energy available following development of Stages 1 and 2.

Compliance with the Stage 1 consent conditions which relate to banksia planting's has been achieved. The carrying capacity (bats/ha) of existing planting areas will exceed the sites current maximum carrying capacity. Over 10 years of planting will provide sufficient energy to sustain 50(50) and 100(100) per ha (over 2000 bats).

Detailed analysis has shown that there is a permanent solution to the impact of the removal of Common Blossom Bat forage habitat. This analysis shows that sufficient planting's have already been undertaken to mitigate the losses associated with Lots 1 and 2 development, there are a relatively low number of bats in the population and the extensive planting's in management Lot 8 in the Richtech Land will substantially increase the amount of forage habitat for the local bat population in the near future".

The conclusions from the flora and fauna assessment prepared by James Warren and Associates is as follows:-

"It is proposed that the site be developed for urban residential purposes as a component of the wider Casuarina Beach Estate.

Previous flora and fauna surveys and the National Parks and Wildlife Service's data base were reviewed to determine the occurrence of significant species in the locality. This working list was used as a basis for determining target species and designing more detailed surveys.

Vegetation surveys were undertaken in September 1999. Detailed searches of all parts of the site were undertaken. Specific searches for significant plants were also undertaken. It was considered that the subject site would have supported littoral rainforest before clearance of sand mining. Sand mining

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removed all vegetation and much of the soil seed bank and destroyed the original dune structure. Following mining of the area (including the subject site) was replanted with Horse Tail She Oak, Bitou Bush and Coastal Tea Tree. The subject site now supports three vegetation communities.

1. *Mid high open forest (Coastal Banksia);*
2. *Mid high open mixed forest (Coastal Tea Tree/Coastal Banksia);*
3. *Mixed grass land, sand plain and disturbance.*

Much of the site is dominated by exotic and non-endemic species. The main communities is dominated by native species (Coastal Banksia) are reasonably wide spread and well represented in conservation reserves in northern NSW. Vegetation communities are not considered to be of conservation concern.

Bitou Bush (which occurs at the site in dense groves) has been listed as a key threatened process under Section 3 of the Threatened Species Conservation Act, 1995. The listing is based on the threat that the species poses to native plant communities, a number of threatened plants and native fauna habitats.

The site may have supported threatened species such as Scented Acronychia and Stinking Laurel before clearance. Searches were undertaken for these species without success. No other threatened, ROTAP or regionally significant plant species were recorded during surveys. If the site was allowed to regenerate to its original climate community (significant management would be required) it may provide habitat for these species.

Detailed ecological surveys of the entire Casuarina Beach (Kings Beach) Stage 1 undertaken in 1996 and the Species Impact Statement produced (Gunninah Consultants 1996). Detailed survey work was undertaken on Lot 1 DP 811425 (Narui land) in 1998 was still in the ownership of Narui Gold Coast. Further studies were undertaken in 1999 to allow the Narui site to be incorporated into the overall Kings Beach development concept. This data was extrapolated to assess the habitat value of the subject site.

Surveys recorded two species of amphibian, three species of reptile, 52 species of birds and 10 species of mammal. The site was considered of low value for amphibians. Wallum Froglets and Wallum Tree Frogs have been recorded from the wider locality but are considered very highly unlikely occurrences on the subject site. It is considered unlikely that the site provides habitat for other significant species known from the locality such as the Green thighed Frog and the Green and Golden Bell Frog.

The site provides habitat for a low diversity of reptiles, although moderate abundances of all species were observed. The site is considered unlikely to provide critical habitat for these adaptable species. The site is considered highly unlikely to provide habitat for threatened species known from the wider locality such as Stephen's Bandit Snake and the White Crown Snake.

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Ornithologist Stephen Debus found the site to support a low density of bird species.

No threatened species were located during surveys and it is considered unlikely that the site will provide critical habitat for such species. It was considered unlikely that the proposed development would have a significant impact on shore birds that may utilise adjacent sections of Bogangar beach.

Exotic species such as the Black Rat and House Mouse were the only small terrestrial mammals recorded during surveys. The site is considered unlikely to provide habitat for native species, including the significant Common Planigale.

The site was considered likely to support a range of bats, potentially including a number of threatened species. A number of these species may forage at the site, although the lack of diversity and structural complexity is likely to limit its value in this regard. The site is unlikely to provide roost habitat for any of these species.

The threatened Common Blossom Bat has been recorded widely within the study area and was recorded on the subject site. A detailed vegetation survey was undertaken to determine areas of high, medium and low concentration of the forage species Coastal Banksia. The subject site supports 14.595ha of low density banksia and 4.31ha of medium density banksia. There are no areas of high density banksia. It was estimated that development of the subject site would result in a loss of 2,534 stems supporting 17,240 inflorescences. Cumulatively, development of Stage 1 and the subject site will result in the loss of 39,880 inflorescences. 59% (57,863) of the 97,743 inflorescences available prior to any development will remain. 35,635kj or 1.8 times the energy requirements of the Blossom Bat population (170 individuals) will be available following the cumulative losses of Stage 1 and Stage 2 (Management Lots 1 and 2).

Based on a population of 170 bats, this data was then provided to Mr Greg Richards (Bat Specialist) who concluded that the proposed development would not place a viable local population of the Common Blossom Bat at risk of extinction.

The Black Flying Fox may also utilise the site habitats. Given the small percentage of the locally total forage range that will be affected by the proposed development, impacts are considered unlikely to be significant.

A number of threatened species were considered in the Section 5A analysis. It was concluded that the proposed development was unlikely to have a significant impact on a local population of any of these species.

The subject site forms part of the large (disturbed) habitats north of Cudgen Nature Reserve all the way to Kingscliff. A small diversity of fauna will be

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moving through the subject site. It must be considered that when development on all surrounding portions of the Kings Beach estate occurs in the near future it will be impossible for the site to form part of an important fauna movement corridor in this locality.

The proposed development will result in a loss of habitat for the species recorded from the site. In a regional sense, the loss of habitat is considered to be inconsequential for common species. It was considered that the loss of habitat for threatened species such as the Common Blossom Bat and Flying Fox could be acceptably ameliorated by the establishment of habitat planting areas on other parts of the Kings Beach estate”.

Comment

Section 78(8)(b) of the Environmental Planning & Assessment Act, 1979 is as follows:-

“78(8) A development application must be accompanied by:

(b) if the application is in respect of development on land that is, or is a part of, critical habitat or is likely to significantly affect threatened species, populations, or ecological communities, or their habitats - a species impact statement prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995”.

The Species Impact Statement accompanying the development application S96/135 for Stage 1 applied to the whole of the Kings Beach site. Subsequently, advice was sought from the NPWS and Council’s Solicitors as to whether or not the Stage 2 development application and subsequent applications will need to be accompanied by a Species Impact Statement.

Council’s Solicitors advised that Council may well have already complied with the Environmental Planning & Assessment Act, 1979 in that a SIS has already been provided for the whole site and has been assessed by the Council in great detail. Accordingly, a further study would not be required.

The NPWS have advised that any decision regarding the significance of impacts in subsequent stages on threatened species, and hence the need for a SIS, must be made by the consent authority.

Section 5A of the Environmental Planning & Assessment Act, 1979 provides 8 factors which must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats.

The Flora and Fauna report provides this Section 5A assessment and concludes that the development is not likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

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Taking into consideration the advice from Council's Solicitors, the Section 5A assessment accompanying the original development application and the further 8 point test report submitted on 23 May, and the letters from NPWS dated 16 May, 2000 and 24 May, 2000, it is considered that the development is unlikely to have a significant effect on threatened species, populations, or ecological communities, or their habitats and an SIS is not required.

Effect on Landscape/Scenic Quality of the Locality

A proposal of this scale and in this location will have an effect on the landscape and scenic quality of the locality by transforming the coastal landscape into an urban one. This affect is accepted due to the history and zonings of the site and the commitment given by the LEP amendment and the DCP for residential development in this location. The more scenic areas in the land are protected by the 7(f) Environmental Protection (Coastal Lands) zone.

Earthworks will modify the topography of the land, but not significantly.

The applicant has submitted a typical streetscape concept which is very satisfactory.

The visual impacts will be reduced by appropriate buffering and landscaping.

The development will be consistent with the general character of new residential estates.

Access, Transport and Traffic

Issues in relation to traffic, access and road layout have been reviewed by Council's Engineering Services Division, Subdivision Engineer and the Local Traffic Advisory Committee. The comments made by the Local Traffic Committee which are outlined in this report will be incorporated, where necessary, into the design of the proposal to improve the layout.

DCP16 - Subdivision Manual requires pavement of 11m wide where medium density of 15 units/ha can be achieved. Road 3 is to be 11m wide and is consistent with. However, not Road 2 which has two further development lots fronting it and also services a large lot to the south, which has the potential to generate significant traffic volumes. Road 2 should also have an 11m wide pavement.

It is also noted that the southern end of Road 2 terminates at the boundary of a future lot (proposed Lot 1) and no turning facility. A cul-de-sac is required similar to that shown on Road 3.

The width of roads 4 to 9 are of concern being only 6m wide especially as AUSTRROAD rules prohibit all parking on footpaths. It is considered that 7.5m would be better in accordance with the new AUSTRROAD rules and with vertical kerb on all new roads now.

Concerns are raised regarding the accessibility of car spaces at the end of hammerheads. It is considered that car spaces P1 and P6 shown on the submitted engineering plans are in breach of the road rules as drivers are to park 6m behind the boundary line. Car

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parking space P4 is unlikely to exist as the driveways for adjacent lots will restrict this space.

As shown on the typical cross section (Figure E28) where the boardwalk is to be used as a shared cycleway/walkway it is to be 4m wide to comply with AUSTROADS.

AUSTROADS Part 15 states that pine log, chain wire or post and wire fences should not be within 1m of a cycleway. Any consent will be conditioned appropriately.

The Statement of Environmental Effects states that the cycleway/walkway are designated to ensure user safety, however, this intention may not be the case given the non compliance with this AUSTROAD and Australian Standards.

The garbage vehicles for Solo Waste (Council's Garbage Contractor) are having problems with turning circles. Solo Waste have advised that the turning radius for the garbage vehicles is 11.2m while the total overhang of the vehicle is 12m. Council's current DCP16 - Subdivisions Manual provides for cul-de-sacs to have a radius of 9m. These conditions lead to the garbage vehicle having to do 3 point turns in restricted areas, leading to potential major safety problems due to unsupervised turning.

The concept layout plans for Kings Beach Stage 2 contains a number of streets with designs of "T" and "Y" heads which, in Solo Waste's submission, create significant risk management/safety issues. However, the conclusion is that the current quality of residential amenity design should be supported and not compromised by the garbage vehicle manoeuvring optimal requirement. It is considered that the proposed layouts should be reviewed in light of the above, otherwise the garbage service may not be able to be provided to some properties.

Character, Location, Siting, Design and External Appearance, Size and Shape of the Land etc

This development although similar in some ways in character to other residential estates, is a unique development on the Tweed given its close proximity to the Coast. Subsequently, the proposal has attempted to optimise its proximity to the Coast creating a unique estate.

Nevertheless, a number of design issues have been identified, as discussed in this report which include the subdivision in the 7(f) zone, location of parks, infiltration basins and drainage reserves in open space areas and a number of traffic/road issues.

One other issue is the width and depth to frontage ratio of the beach front lots. These lots generally have a width of 12 metres with a depth of 60 metres. There were initial concerns that difficulties would arise in designing and siting a complying dwelling on the lots given that they have a 12m frontage and normal side boundary setbacks are 900mm and also that having such narrow lots may create design and siting problems to allow consistency with Council's DCP39 - Energy Smart Homes Policy. As discussed in the section titled DCP39 - Energy Smart Homes Policy, the lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis and this is

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not consistent with the DCP and could have undue shadow effects on the beachfront lots.

The applicant has provided plans showing that dwellings of pre-established and innovative design can be accommodated on a beachfront lot. These plans indicate that a dwelling can be sited on each beachfront lot with a side setback of 900mm to the eaves and a maximum site coverage of 50%. In addition, the applicant has also provided examples of dwellings constructed on narrower lots (10m wide) on the Gold Coast.

In view of the detailed controls proposed in the Architectural Design Regulations (ie. setbacks, site coverage, building envelope) which are to be enforced by the Architectural Review Committee and the additional information supplied, as discussed above, it is considered that a dwelling is likely to be sited on these narrower lots.

Subsequently, any dwelling erected on a beachfront lot will need to comply with the Architectural Design Regulations and Council's statutory guidelines.

Architectural Design Regulations

In order to ensure that the development is unique the applicants have prepared *Architectural Design Regulations* (ADR) for Kings Beach. These ADR's are intended to encourage the design of the houses to reflect particular informal character, openness and individuality appropriate to the beach community.

The ADR provide that all building works, (including external construction, alterations, additions, repairs, including painting and repainting, construction and alterations to any fence, retaining walls, exterior lighting, driveways and landscape and tree planting) will need to comply with the ADR and will also require approval from an Architectural Review Committee (ARC). The ARC will include those persons appointed by the applicant, and will more than likely consist of architects etc. Approval from the ARC for any building works must be obtained before applying to Council for approval. The ADR also proposes that Council will be party to assist in enforcing the ADR.

Council's Building Unit has reviewed the proposed ADR's and provide the following comments. Accordingly, it is considered that Council should not be party to the enforcement of this complex design regulations, and Council should only process new dwelling development applications and construction certificate applications that have been endorsed by the ARC. In addition, any endorsement or approval by ARC is not to substitute for or guarantee development approval from Tweed Shire Council.

Building Unit Comments

'Having received the ADR, the submission dated 28 January by Crone, McKerrill Lynch and reviewed the 88B instrument proposed for Kings Beach the Building Control Unit offer the following comments.

It is the Building Control Unit's belief that the ADR should not be included in any legal document to be administered by Council.

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Notwithstanding that, some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a document such as the 88B or a DCP for control by Council.

This will allow the developer to amend the ADR without reference to Council as the issues relevant to Council would be bound by the 88B or DCP.

Accordingly, Building Control will require the following condition to be incorporated in the subdivision approval in both the DCP and 88B Instrument.

- “1. The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.*

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4m and not less than 5m to the wall of the double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3m from the front street boundary.

- 2. The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 6.75mm to the outer most projection of the eave.*
- 3. The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3m.*
- 4. For beach front lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.*
- 5. All fencing east of the 7(f) and 2(e) zone boundary shall be a minimum height of not more than 1.2m”*

The above conditions are to include wording to allow for variation by Council should it be expedient to do so on the merits of each submission to Council, ie. or as otherwise varied by Council”.

Infiltration Basins and Drainage Swales in Open Space (Dual Usage)

The application proposes to locate a number of infiltration basins and drainage swales within the north/south open space corridor to the east of the site. An east/west drainage swale is also proposed through open space (passive and active) and Management Lot 9 (active open space). Concerns have been raised in relation to the appropriateness of these basins in the open space. These may create maintenance problems for the open space and also for the basins and swales themselves. In addition, the infiltration basins and drainage swales may restrict the amount of useable open space available in this locality, and detract from the amenity of this land. With the basins and swales so close to the Crown Reserve there is also the possibility of runoff escaping into the Reserve,

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which is not satisfactory as all runoff from the development site is to drain to the west only. Council's Manager of Recreation Services has advised that the primary function of these areas is to provide appropriate open space to the community. Any proposed dual usage should be planned so as not to compromise this function. Consequently, open drains proposing slopes of <20 degrees should be avoided.

In an attempt to resolve the above problems, the applicant was requested to redesign/relocate the infiltration basins. This included redesigning the basins so that they compliment the open space and do not detract upon it and create any maintenance problems. Possible landscaping of these areas will also compliment the basins. To support the redesign the applicant is also to provide a hydraulic analysis and infiltration rates for these areas. These details have been submitted to Council.

To support the dual usage of the open space the applicant has provided a profile and schematic showing how it is planned to integrate the infiltration basins in the open space. The applicant has also provided the following:-

“Further to the meetings of 28/3/00 and 3/4/00, we have pleasure in submitting for your consideration a profile and schematic showing how it is planned to integrate the infiltration basins in the proposed 7(f) zone foreshore area with the public walkway/cycleway and the individual common gates from the private lots to this foreshore area.

As discussed at the earlier meeting, we have prepared this illustration to assist Council in demonstrating how the various elements are intended to be integrated without impacting upon either the integrity and/or functioning of the infiltration basins and the public open space with associated walk and cycleways.

Cardno MBK and Gamble MckInnon (Casuarina's landscape architects) in association with MGI, have responded to your specific concerns by showing how the multiple 300mm deep infiltration basins, planted with endemic dune grasses are intended to be interspersed within the public foreshore open space area in such a way as to function both as 'indigenous' landscape features but with the necessary engineering features to accommodate runoff as required.

The example attached herein has taken areas in the Stage 2 Application as a basis for examining how all functions are proposed to be integrated. Specifically, the areas immediately west of the foreshore public open space, include:

- *the private residential lots and public access to the beach;*
- *public open space (ie. public parkland area which extend west from the foreshore area into the development area proper);*
- *the commercial land use area (exemplified by the resort sites); and*

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- *the road reserve with its associated parking which together form part of the proposed Beachside Village.*

As will be noted, reference is made to the curvilinear nature of the walkway/cycleway in order to provide greater interest while removing any tendency towards a 'gun barrel' approach. There will be continuous visual transition between the public and private open space, while chain linked timber platforms are proposed to visually punctuate pathway intersections and control bicycle speed.

The linked timber walkway to Casuarina Beach shown east of the 50 year erosion line is also at the intersection of the public accessway through the private lands to the foreshore walkway/cycleway. It is intended that the 2.5 metre foreshore pathway will be coloured concrete for both pedestrian and cycle use.

It is also intended that the natural dune vegetation regrowth will be supplemented with additional endemic plantings.

The Management Lot boundary is shown as it highlights where, at the southern area, the foreshore park and walkway will be developed in the eastern most portion of Lot 500, for which DLWC and Council's (as the Trustee) consent is required in order to lodge the DA for these foreshore works.

Cross-sections have been presented to assist in demonstrating how the east/west land use associations are intended to be handled.

We trust that this pictorial exhibit and the accompanying explanation as to how the client intends to treat this important area, will satisfy Council's question as to how the multiple foreshore functions can be attractively designed whilst also ensuring that the engineering infrastructure can not only work effectively, but can do so in an integrated manner".

In addition, the applicant has also amended the figures (Figure E24) and has decreased the linear size of the infiltration ponds in the north south open space area. To compensate for this loss of infiltration area the applicant has proposed to provide an infiltration basin in proposed Lot 20 (proposed open space). However, this does not necessarily resolve the problem but merely relocates the infiltration basin to another open space area and still creates potential problems in relation to the amenity and usage of the open space.

The Manager, Recreation Services has taken the above information and details into consideration and now considers that the proposed infiltration basins are acceptable in the open space and are unlikely to create any significant adverse impacts on the amenity of the open space.

In addition, the east/west drainage swale will be piped and any consent will be conditioned appropriately.

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Subdivision Engineer Comments

In relation to the Hydraulic calculations and infiltration rates provided by the applicant, Council's Engineers have provided the following information in relation to stormwater drainage.

“Stormwater Drainage

General

The applicants proposal as shown on Figures E216, E216A, E216B, E216C, E116 Rev B, E116A, E116B, E116C, E10, E11, E12 and E13 for the conveyance of the Q100 flows along the north/south drain and then via the east/west system is generally satisfactory.

The applicants have produced figures E116B and E216B which show the Q100 inundation within both the north/south and east/west drainage system. These figures show that the allowable building areas within each residential allotment are not effected by the Q100 inundation.

The Q100 water surface level as shown on these figures have been derived assuming no infiltration and area therefore conservative.

North/South Drainage System

There is a major concern regarding the Q100 flood event overtopping the north/south drainage channel and then discharging into the Pacific Ocean via Lot 500.

Figures E216C and E116C show a long section of the trunk drain invert and water surface profile. When the Q100 water surface profile is plotted on the cross sections shown on Figures E10, E11, E12 and E13 it can be seen that in several locations the eastern bund is overtopped.

The overtopping is worst between chainage 950 and 1200. In some locations the top of the drain is overtopped by approximately 250mm to 300mm.

To overcome this problem it is recommended that the eastern bund of the north/south drain is raised so that it is 300mm above the Q100 water surface level. The raising of this bund may require filling into Lot 500. Approval for this filing is required.

East/West Drain

The Manager Recreation Services has advised that the east/west drain which traverses the open space and lot 9 and eventually discharges to controlled outlet No. 7 is unacceptable.

This proposed open drain will have an adverse impact on the usage of the open space area and the playing fields in Lot 9 and consequently should be piped to a Q100 standard.

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Infiltration

The infiltration ponds as shown on Figures E121 Rev B and E222 Rev B show the locations for the proposed infiltration ponds.

These ponds are generally satisfactory subject to detailed design and further approval by the Manager Recreation Services for the revegetation of the ponds.

Given the requirement to pipe the east/west drain care should be taken in the detailed design to ensure that no conflict occurs between the proposed infiltration ponds and the piped drain.

Development conditions can be imposed for the infiltration basins which ensure a satisfactory outcome.

Conclusion

In general it is considered that the proposed drainage system is satisfactory subject to the following:

- 1. The eastern bund of the north/south drain shall be raised so that it provides 300mm freeboard above the design Q100 water surface level.*
- 2. The east/west drainage system that traverses the open space and lot 9 shall be piped to a Q100 standard. Care must be taken during the detailed design to ensure that the piped drainage system does not conflict with the infiltration ponds.*
- 3. The location of the infiltration ponds are generally satisfactory subject to conditions of consent which set performance criteria for the ponds”.*

It would appear from the above comments that from an Engineering prospective the proposed infiltration basins and drainage swales are likely to be satisfactory. However, as indicated above, it is recommended that the eastern bund of the north/south drain shall be raised so that it provides 300mm freeboard above the design Q100 water surface level.

Obviously raising this bund may adversely impact on the amenity of the open space which is not satisfactory.

It is agreed that the east/west drainage system that traverses the open space and lot 9 should be piped. This will allow better usage of the open space (passive and active).

Utility Services

The Stage 1 linen has not been lodged and therefore Works as Executed Plans for water supply have not been received demonstrating that each management lot has access to reticulated water supply.

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Construction of the sewer rising main for Stage 1 has commenced, however the reticulation to the management lot has not been approved, constructed or bonded.

These matters are addressed in the recommended conditions.

Figure E19 Rev B titled Vacuum Sewer Reticulation. This drawing cannot be approved as it does not represent vacuum reticulation concept even as indicative only. Subsequently, the concept is unacceptable.

Prior to the approval of the Construction Certificate the applicant will need to provide reticulation calculations which clearly show that the proposed 100 diameter watermain (as shown on Figure 21 Rev B) that services the 'possible future health resort' has sufficient capacity to ensure that adequate fire fighting flows are maintained at all times.

These calculations will need to include details of the proposed development yield for lot 1. These matters can be conditioned.

Landscaping

Street trees will be provided or contributions obtained.

The proposal will involve the removal of a substantial amount of vegetation which in part has been accepted due to the zoning of the land and the DCP which has been prepared.

The landscape master plan for Stage 2 provides for extensive landscaping over the site. Landscaping is primarily provided along the streets, roads and within the open space. The principle goal of the landscape works is to provide the Kings Beach community with a safe, secure environmentally sustainable landscape, which facilitates a broad range of private and community based recreational activities.

The landscaping shall improve the amenity of the site and should also ensure that the maintenance of those areas is minimised. It is considered that landscaping this site should be undertaken in accordance with the landscape master plan for Stage 2 and the details provided with the application.

Natural Hazards

No known natural hazards are likely to affect the site other than coastal processes.

This together with the Crown Reserve to the east should provide adequate protection to the site.

Social/Economic Effect

As discussed in Section (a)(i) of this report, the TLEP 2000 requires that social impact assessment be provided for developments that may have a significant social or economic impact. It is considered that this assessment is not necessary.

The proposal will provide additional dwelling lots to cater for some of the growth along the Tweed Coast. The proposal will increase demands for services and facilities some

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of which will be catered for on the site when various stages of the Kings Beach development are released. There will be an increased maintenance burden for Council for the additional structured and casual open space. However, this open space is required to meet the need of the future population.

The proposal will provide employment opportunities both during the construction and post construction phases. This will likely improve the economy of the locality and the Tweed with potential spin off effects.

In addition, the Kings Beach development will also provide additional rate revenues for the Tweed Shire Council.

(c) The Suitability of the Site for the Development

As discussed throughout section (b) of this report it is generally considered and accepted that the site is suitable for the development, subject to some redesigning and other issues as identified in this report which need further review. The site has a long history and has a commitment given by the LEP amendment and DCP for residential development in this location.

This report has identified a number of issues which indicate that the development is not suitable for approval until they are satisfactorily resolved. These issues include compliance with the Stage 1 consent S96/135, outstanding advice from NPWS in relation to Flora and Fauna Assessment and compliance with Stage 1 consent conditions, owners consent from DLWC, dual usage at open space to include infiltration basins and drainage swales. Implementation of the Architectural Design Regulations, compliance with the Deed of Agreement and inconsistency with DCP11.

It is concluded that should these issues be resolved it is considered that the development is suitable to the site and locality.

(d) Any Submissions made in accordance with the Act or Regulations

Public Submissions

The application was not statutorily required to be advertised.

Public Authority Submissions

See consultation section of this report.

(e) The Public Interest

A number of State Government Planning Policies (SEPPs) and other planning guidelines (LEPs and DCPs) have relevance to this application. All these policies and plans were discussed in Section (a) of this report.

As discussed in Section (d) the application was not statutorily required to be advertised.

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ENGINEERING SERVICES DIVISION COMMENTS

As discussed in Section (b) of this report titled “Access, Transport and Traffic” a number of design issues have been identified which need to be amended. It is considered that these issues can be adequately conditioned on any consent.

Water and Sewer Engineer Comment

“Prior to the approval of the Construction Certificate the applicant shall provide reticulation calculations which clearly show the proposed 100 diameter watermain (as shown on Figure 21 Rev B) that services the ‘possible future health resort’ has sufficient capacity to ensure that adequate fire fighting flows are maintained at all times.

These calculations shall include details of the proposed development yield for Lot 1.

Also see comments under “utility services” of this report.

Infrastructure Engineer Comment

“A. Drainage Comments.

1. General Land Form and Drainage

This application covers parts of Management Lots 1 and 2 created by Kings Beach Stage 1 consent. Most of the land, the subject of this application is to be reshaped to fall eastwards from a ridge formed by the retained section and relocated section of the Coast Road. Drainage is to be collected in internal subdivision roads by conventional underground drainage and discharged into a north flowing swale/infiltration drain at the coastal boundary. This drain is proposed to flow north past the subject land along the eastern boundary of Management Lot 3, then turns at right angles to the west and proceed via open space lands to Controlled Outlet 7.

A small part of the subject land at the north west of the site, not proposed to be developed in this application, will fall towards the relocated Coast Road and drain through Controlled Outlet No. 3.

Land reforming proposed in this DA is part of a larger proposal to reform all of the land in Management Lots 1, 2, 3, 4, 5, 6, 7 and the Narui lot. As a separate DA however this application proposes land reshaping that is inconsistent with existing land levels at the north and south of the subject land.

Proposed land levels at the southern boundary of Management Lot 1 are at variance with existing levels of adjacent land, however no specific subdivision works (apart from land forming) are proposed in the southernmost section.

Proposed land levels at the northern boundary of Management Lot 2 are at a significant variance (up to 5m) with existing levels shown on submitted plans, again there are no specific subdivision works (apart from land forming) proposed at this location.

As this is a separate DA it will require conditions on land forming that allow it to develop separately from other adjoining land.

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Cardno MBK Figure E18A and cross sections on Figures E10 - E12 indicate filling on lot 500 to assist in elimination of low areas along the coastal frontage of the subject land, this also enables the coastal trunk drainage swale to be contained on the eastern side and its invert to be elevated above natural surface to provide a falling grade to Controlled Outlet No.7. If filling for this purpose on lot 500 is not permitted, the drainage swale would require shifting to the west or a vertical retaining wall (up to 2.5m high) would be required on the lot 500 boundary. Shifting the drainage swale to the west would require reconfiguration of coastal frontage lots and may render proposed open space lot 12 (Stage 1) unviable, it could also render as unviable the future public promenade/car park area east of future commercial and tourist development lot 30.

2. Site Drainage

2.1 Background

The Stage 1 DA provided a SW quality strategy based on “Statement of Evidence - Report on Master Drainage and Stormwater Management Strategy by PN Casey, September 1998”. This proposed

- *“direct infiltration of “clean” water into the sands, eg roofwater;*
- *modular pavements in hardstand, carpark areas;*
- *vegetated filter strips on verges, and development edges adjoining public open space;*
- *permeable sumps at building down pipe ends;*
- *drainage catch basins in the “treatment train”;*
- *gross pollutant traps (GPTs) such as HumeceptorTM on lateral drainage lines outletting to the trunk drainage network from development areas;*
- *underground infiltration cells (Atlantis Drainage Cells a product developed for such purposes as stormwater quality treatment), placed offline, but fed from the trunk drainage system downstream of GPTs.”*

Pat Casey also proposed an “Alternative Water Quality Treatment System” in Appendix A of his evidence. The “Alternative system” was proposed to comprise the following elements:

- *“Catch basins (EPA Guidelines, Ref. 9, Section 4.6)*
- *HumeceptorTM Gross Pollutant Traps*
- *Sediment Traps (EPA Guidelines, Ref. 9, Section 4.3)*
- *Infiltration basins incorporating wetland (EPA Guidelines, Ref. 9, Section 5.6)”*

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This application includes a report from Cardno MBK “Kings Beach Development - Proposed Stormwater Treatment & Disposal Incorporating The Alternative System” this report in general terms proposed (section 2.2)

- *infiltration of roof runoff*
- *discharge of road drainage through catch basins*
- *further treatment of road runoff by grass swales*
- *final treatment by infiltration basins*

Since the submission of the application there have been many meetings between the developers representatives and Council officers regarding drainage and water quality issues. Many amendments to the original plans have been submitted and at the time of writing this report still further reports on hydraulic analysis and infiltration basin sizing/location/design are awaited from the applicant’s consultants (Cardno MBK).

Cardno MBK letter 21/2/200 contained Attachment B “Water Quality Management and Monitoring Program” containing proposals for water quality management in the operational phase, water quality objectives, sampling and monitoring program, erosion and sediment control plan. For the operational phase it proposed a treatment train consisting of:

- *Disposal of roof water drainage by on-site infiltration for individual properties*
- *Collection of sediment and gross pollutants via catch pits*
- *Installation of Humeceptors at locations where oils and greases may be generated*
- *Transport of stormwater runoff by grassed swales and vegetated strips*
- *Screening of outlets to infiltration basins to capture gross pollutants*
- *Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins*

Conditions will be recommended to incorporate the above stormwater quality management principles and the provisions of Council’s Stormwater Quality Management Plan.

2.2 Lawful Point of Discharge

This DA is for subdivision of part of Management Lot 1 and part of Management lot 2.

The proposed point of discharge for this application is Controlled Outlet No. 7. Part of the undeveloped sections of Management lot 2 and Management lot 3 will drain to Controlled outlet No.3, but these works are not part of this application.

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The proposed point of discharge at Controlled Outlet No. 7 is satisfactory and was anticipated in the stage 1 approval. Stormwater passing through Outlet 7 will discharge by overland sheet flow across passive open space lot 8 to Cudgen Creek.

Stormwater from this application must traverse Master lot 3 and proposed active open space lot 9 (which are not part of this application) to drain to Outlet 7. Easements/reserves across lots 3 and 9 will be required for continuity of drainage paths to the outlet.

2.3 Proposed Drainage System

2.31 Drainage Layout

It is understood that roof water from dwellings will be infiltrated on each individual allotment which will reduce the volume of stormwater runoff to the public drainage system.

The proposed subdivision lots front roads Nos. 1, 2, 3, 4, 5, 6, 7, 8 & 9. These roads are provided with conventional underground drainage. Q5 road drainage is proposed to pass through catch basins (to retain sediment) and be piped through west/east pathways to a north flowing coastal swale drain. These west/east pathways also convey Q100 overland flows.

Stormwater (up to Q100) is to be conveyed in a northerly direction along a proposed coastal swale drainage/infiltration system. This is a proposed dual use area also containing walkway/cycleway and public open space/landscaping. This proposal is satisfactory from a drainage perspective, but, other units will need to determine its suitability for and compatibility with the other proposed uses.

The coastal swale passes north beyond Management Lot 2 and along the eastern boundary of Management Lot 3 for approximately 460m, it then turns at right angles to the west and continues through proposed open space lots (in Management Lots No.3 and No.9) to Controlled Outlet No.7. The applicants plan Cardno MBK 2967/1-SK.F shows schematic layouts of infiltration basins in proposed open space Management Lot No.9 and another lot (in Management Lot No.3) east of Management Lot No.9.

2.32 Drainage System Capacity

Cardno MBK Figure 18C contains a long section of the trunk drain. As stated in section 1

“Cardno MBK Figure E18A and cross sections on Figures E10 - E12 indicate filling on lot 500 to assist in elimination of low areas along the coastal frontage of the subject land, this also enables the coastal trunk drainage swale to be contained on the eastern side and its invert to be elevated above natural surface to provide a falling grade to Controlled Outlet No.7. If filling for this purpose on lot 500 is not permitted, the drainage swale would require shifting to the west or a vertical retaining wall (up to 2.5m high) would be required on the lot 500 boundary.”

Cardno MBK Figure E18C provides a long section of the trunk drain invert and water surface profiles. When levels from the east of the drain (from cross sections on Figures E10-E12) are plotted on the drain long section, breaching of the eastern side of the drain is indicated with resultant discharge to the beach. If the higher Q₁₀₀ (no infiltration) levels

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(as shown on Cardno MBK Figure E116E, submitted as additional information for Casuarina Beach Stage 4) are plotted the breaching is worsened. The eastern drainage bund will require further raising to fully contain the Q_{100} (no infiltration) flow, the bund should be raised to at least 300mm above the Q_{100} (no infiltration) water surface level.

2.4 Infiltration

2.41 Purpose of Infiltration

Infiltration fulfils two purposes. Firstly it reduces the volume of stormwater runoff, enabling a reduction in the size of downstream drains. Secondly it improves stormwater quality by removing some water born pollutants.

For water quality treatment, infiltration is usually designed to capture the runoff from up to a 3 month ARI storm ($Q_{0.25}$) which will capture over 90% of annual runoff. (Note for Tweed Shire, $Q_{0.25}$ is deemed to be 40% of $Q_{1 \text{ Year}}$.)

2.42 Dual Use Issues

The applicants consultant Cardno MBK has submitted "Consolidated Properties Pty Ltd, Casuarina Beach, Infiltration Basin Analysis, March 2000" to supplement information submitted with the application. This analysis proposes location of infiltration basins in public open space associated with the coastal walkway/cycleway and in areas of open space in management Lots No.9 & No.10 and goes on to say "Council officers have indicated that these layouts are satisfactory, ". It would appear however from comments made at a meeting held 28 March 2000 between Lenen, Consolidated Properties and Council representatives that this issue is not settled. There is a possibility that proposed drainage infiltration basins may not be compatible with the open space/walkway-cycleway uses on the coastal frontage and may also not be compatible with the active open space uses of Master Lot No.9 and other open space areas.

At some meetings it has been suggested that the infiltration basins could be turfed and on other occasions that the basins should only be vegetated with sparse coastal tussocky grasses, with significant areas of bare sand. From an infiltration perspective the latter would be acceptable, but, a turfed surface would be unacceptable due to an inherent loss of surface permeability.

A meeting with the Manager Recreational Services 13 April 2000 explored dual use (drainage/open space) issues. MRS indicated that slopes in excess of 5% (which would be required to define channels and create workable drainage invert levels) would be incompatible with open space objectives. The MRS proposes to draft a written response on these dual use issues.

2.43 Infiltration Basin Sizing

2.431 Permeability

The applicant's infiltration analysis contains percolation tests in accordance with Appendix B of AS 1547, Disposal Systems for Effluent from Domestic Premises which

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have measured permeabilities ranging from 44 to 57 metres per day. For design and sizing of infiltration basin purposes they have adopted 24m/day.

There is no current Australian Standard for design of stormwater infiltration systems. In the absence of such a standard the applicant has used the sewerage effluent standard AS 1547 to derive permeability rates. This standard gives 1.2 - 6 m/day as typical values of permeability in sand, which are considerably less than the rates measured and proposed for design and sizing of infiltration basins by the applicant. The standard modifies raw permeability rates by a "Long Term Acceptance Rate" table (resulting in a reduction factor of up to 100 times) for sizing absorption areas. The applicant does not propose any such reduction in their raw permeability rates to allow for long term reduction in permeability due to clogging and other factors.

A condition is proposed to reduce raw permeability rates to lower values that are more acceptable for design of long term infiltration areas.

2.432 Location and Sizing of Ponds

At the time of writing this report, further information from T Johnson (Cardno MBK) is awaited concerning the location and sizing of infiltration basins for the Controlled Outlet No. 7 catchment. Conditions can specify criteria for sizing total basin size for each catchment. The actual location and sizes of individual ponds is undetermined at this stage.

For the purpose of this report a condition can be drafted requiring a certain area of infiltration basin for each catchment, together with criteria for the basins design and management. Other units will need to determine compatibility with other proposed uses.

3. Stormwater Quality

3.1 Erosion and Sediment Control

The ESCP submitted with the DA and the final proposal for ESCP contained in part 5 of Cardno MBK "Water Quality Management and Monitoring Program" (1/2/200) are insufficiently detailed to serve as the basis of conditions of consent for this activity.

Council's recently adopted Urban Stormwater Quality Management Plan (prepared in accordance with a Direction EPA under Section 12 of the Protection of the Environment Administration Act, 1991) requires stormwater objectives during the construction phase of new development to comply with "Tweed Shire Council, Aus-Spec D7 - Stormwater Quality, and Annexure A - Code of Practice for Soil and Water Management on Construction Works". Proposed conditions of consent will incorporate these requirements.

3.2 Permanent Stormwater Quality Controls

The final proposal is contained in Cardno MBK letter 21/2/200 Attachment B "Water Quality Management and Monitoring Program", for the operational phase it proposed a treatment train consisting of:

- *Disposal of roof water drainage by on-site infiltration for individual properties*

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- *Collection of sediment and gross pollutants via catch pits*
- *Installation of Humeceptors at locations where oils and greases may be generated*
- *Transport of stormwater runoff by grassed swales and vegetated strips*
- *Screening of outlets to infiltration basins to capture gross pollutants*
- *Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins*

The grass swale proposal may be compromised by a number of factors

- *Grass swales were originally proposed from the discharge point of road underground drainage along dual use pathways to the coastal drain/pathway/cycleway (ie between proposed lots 53/54, 46/47 and 39/40). The swales were proposed to remove sediment and some nutrients. These swale drains would have consumed most of the path reserve width (5m) and would have made it difficult to also accommodate the path itself. As a result later plans issued March 2000 have deleted these swale drains and indicate pipe drainage will be used. Whilst this may solve the fit problem in the 5m path reserve, it adversely affects water quality treatment. An alternative may be to install mechanical devices (eg Humeceptor) to remove sediment from stormwater prior to discharge into the coastal infiltration basins.*
- *Proposed grass swale drains from the coastal drain/infiltration area to Control Discharge No. 7 require invert levels that result in deep (2-3m) drains through proposed open space areas. The resultant landform and slopes may be unacceptable for open space uses and objectives. If this is the case the swale drains may have to be replaced by pipe drainage to allow the open space to be more appropriately shaped and this would result in poorer stormwater treatment.*

Cardno MBK's "Water Quality Management and Monitoring Program - February 2000" contains WQ objectives based on concentrations. This approach is not particularly useful in determining conditions of consent relating to stormwater treatment.

Whilst no water quality modelling accompanies this application, the treatment train proposed is similar to that proposed in the North Kings Beach (Sahben) site and should yield similar results.

Council's Stormwater Management Plan adopted 19 April 2000 proposes the following stormwater quality objectives for new urban development:

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<i>Pollutant</i>			
<i>Nutrients</i>	<i>Maximum permissible load that may be discharged kg/ha/year</i>		
	<i>Average year (1719mm)</i>	<i>Wet Year (2185mm)</i>	<i>Dry Year (929mm)</i>
<i>Suspended solids (SS)</i>	300	400	120
<i>Total Phosphorus (TP)</i>	0.8	1.1	0.35
<i>Total Nitrogen (TN)</i>	4.5	6	1.5
<i>Litter</i>	<i>Retention 70% of annual litter load greater than 5mm</i>		
<i>Coarse sediment</i>	<i>Retention of 90% of annual load of sediment coarser than 0.125 mm</i>		
<i>Oil and grease (hydrocarbons)</i>	<i><10 mg/litre in flows up to 40% of Q1 peak.</i>		

The proposed stormwater treatment train, as modified by proposed consent conditions, should yield results that generally achieve this standard.

4. Conclusion

Issues regarding stormwater quality, infiltration, erosion and sediment control can be addressed by consent conditions.

Dual use issues for land to be used for both drainage and open space remain unresolved at this stage. If the landform resulting from drainage constraints renders designated open space land unsuitable for that purpose, then drainage may need to be undergrounded or relocated onto other land. Relocation of drainage or water quality devices onto other land will require the dedication of additional land and a consequent revision of the subdivision/lot layout to provide this additional land.

The proposed land reforming presents difficulties with level inconsistencies at the boundaries with other land. Along the coastal boundary with public lot 500, the application proposes to resolve internal land level issues by filling on lot 500 itself. This fill is necessary to ensure the viability of the proposed drainage and landforming systems. If fill is not permitted on lot 500 then the drainage and landforming proposals, and the application itself may be unviable.”

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ENVIRONMENT AND COMMUNITY SERVICES DIVISION COMMENTS

The Environment and Health Services Unit raise no objections to the proposal. The submitted acid sulfate soil management plan, water quality monitoring and management plan and the sedimentation and erosion control plan are all satisfactory and will be included as a condition of any consent.

The Building Services Unit raise no objections to the proposal. However, as discussed in Section (b) of this report the Building Unit have assessed the architectural design regulations and have identified a number of issues and have recommended that Council should not be party to the ADR.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS

As discussed, the applicant has lodged an appeal to the Land and Environment Court based on a 'deemed refusal'. This reinforces the importance of Council determining this application.

OPTIONS

Council can either:-

1. Approve the application subject to conditions modified or as recommended.
2. Refuse the application.

CONCLUSION

This report concludes that all issues have been satisfactorily resolved or can be addressed by appropriate conditions.

This is a very significant development for Tweed Shire and, indeed, in the State. Following intensive discussion/negotiations with Lenen Pty Ltd and Consolidated Properties over recent weeks, the application is now recommended for conditional approval.

In the event that Council resolves to approve this application, the Director Development Services will write to Lenen Pty Ltd and the applicant requesting discontinuance of the current deemed refusal appeals and withdrawal of the current Section 96 application to the Court to modify condition 41(d) of the Stage 1 consent.

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2. ORIGIN: Subdivision Unit

FILE REF: DA1180/382 Pt3

REPORT TITLE:

Proposed 86 Lot Subdivision at Lot 3 DP 865049 and Lot 1 DP 811425 Coast Road, South Kingscliff - Casuarina Beach Stage 3 (DA K99/1733)

SUMMARY OF REPORT:

The application proposes the Stage 3 subdivision of the Casuarina Beach development into 86 lots. The proposal consists of conventional allotments and larger lots for tourist and commercial development which will be subject to future development applications.

This application is over Management Lots 5, 7, 14 and Part of 13 identified in the Stage 1 consent and the value of works involved is estimated at \$4.2 million. The proposal is also over the "Richtech Land" known as Lot 1 DP 811425.

The applicant has lodged an appeal to the Land and Environment Court based on a "deemed refusal". Therefore, it is considered that the application should now be determined based on the information at hand and given recognition of the contractual arrangements between Lenen Pty Ltd and Consolidated Properties requiring finalisation before 30 June, 2000.

Council has undertaken many meetings and discussions with the applicants to resolve the outstanding issues and it is now considered that the application is suitable for conditional approval, subject to the recommended conditions.

Advice from the National Parks and Wildlife Service in response to a further assessment report on flora and fauna submitted on 23 May, 2000 was received on 24 May, 2000 and a copy of that letter is an annexure.

The recommended conditions below include the latest National Parks and Wildlife Service recommendations (dated 24 May, 2000) with regard to Banksia plantings.

On balance, it is considered that there is unlikely to be a significant effect on the Glossy Black Cockatoo and Marine Turtles and other fauna and therefore a Species Impact Statement is not required.

During the workshop on 24 May, 2000, the applicants consultants requested amendment and/or deletion of the following conditions: 43(i)(ii) and (iv) and 55(d) dot point 7.

Those conditions have recommended amendments with the exception of conditions 43(i) and (iv).

After extensive assessment and negotiations therefore, this significant coastal development is recommended for conditional consent.

RECOMMENDATION:

That :-

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- A. That Section 94 Plan No. 19 and Development Control Plan No. 11 be amended to include Lot 1 DP 811425 (Richtech Land) and the population yields be adjusted to reflect the inclusion of this lot and Development Control Plan No. 11 be further amended to reflect Condition 11.
- B. Council approves the Stage 3 development application K99/1733 submitted by Kings Beach No. 2) Pty Ltd for the subdivision of Lot 3 DP 865049 and Lot 1 DP 811425 Coast Road, South Kingscliff into 86 lots be approved subject to the following conditions:-

PRE-REQUISITES - conditions that must be complied with prior to the release of a construction certificate

1. Prior to the issue of a Construction Certificate a Fire Management Plan is to be submitted and approved by Council. The plan shall address potential environmental impacts, including impacts on threatened species.
2. A detailed plan of landscaping is to be submitted and approved by Council prior to the issue of a Construction Certificate. All landscaping work is to be completed in accordance with the approved plans. **The detailed landscaping plan shall include a list of species which ensure no potential for seed transfer to Lot 500 which would conflict with the propagation and maintenance of species specified in the Dune Management Plan and Lot 500 Management Plan.**
3. A traffic control plan that complies with the provisions of the RTA document "Traffic Control at Work Sites" Version 2 shall be prepared by a person who is qualified, authorised and has passed an RTA approved training course, prior to issue of the Construction Certificate. The applicant shall submit evidence to Council that the traffic control plan has been prepared by an authorised person. All works are to comply with the Occupational Health and Safety Act and the RTA document and the approval particularly in respect to works on public roads. Safe public access shall be provided at all times.
4. **Prior** to the commencement of work the applicant shall submit to Council evidence that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared in accordance with either:-
 - a. Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or
 - b. AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
5. The Stage 1 linen plan required by the Stage 1 development consent S96/135 shall be registered **PRIOR** to issuing any Construction Certificate pursuant to this consent. The Stage 3 application is to be consistent with the lot boundaries of open space lots 8, 9, 10, 11, 12, 13 and 14.

GENERAL

Reports from Director Development Services

6. Prior to the issue of a Subdivision Certificate pursuant to this consent **ALL** works bonded pursuant to Consent S96/135 for Stage 1 shall be completed to the satisfaction of Council.
7. Submission of separate development applications for further development of the residue lots (lots 82,84,85 and 91).
8. The Richtech Land (Lot 1 DP 811425) shall be included in the population yields. **Note:** The Section 94 Plan No. 19 and Development Control Plan No. 11 will need to be amended to including the Richtech Land (Lot 1 DP 811425) and to reflect the amended figures.
9. Any future development application for further subdivision within Stage 3 will need to provide a lot for the purpose of a surf lifesaving club. This lot will be dedicated to Council, at no cost, and credit given for Section 94 contributions.
10. The Architectural Design Regulations shall not be included in any legal document to be administered by Council. **NOTE:** Some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a DCP for control by Council. Accordingly, DCP 11 – Kings Beach will need to be amended to incorporate the following conditions;
 - i. The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4 metres and not less than 5 metres to the wall of a double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3 metres from the front street boundary.
 - ii. The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 675mm to the outer most projection of the eave.
 - iii. The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3 metres.
 - iv. For beachfront lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.
 - v. All fencing east of the 7(f) and 2(e) zone boundary shall be a maximum height of not more than 1.2 metres.

The above conditions (i)-(v) can be varied by Council subject to the merits of each development application.

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11. The development shall be completed in general accordance with Figures E204 Rev A, E205 Rev A, 206 Rev A prepared by Cardno MBK and dated September/November 1999, except where varied by these conditions.
12. Approval is given subject to the location of, protection of, and/or any necessary modifications to any existing public utilities situated within the subject property.
13. No soil, sand, gravel, clay or other material shall be disposed of off the site without the approval of Council.
14. Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired to the satisfaction of Council prior to the issue of a Subdivision Certificate and/or prior to any use or occupation of the buildings.
15. The subdivision is to be carried out in accordance with Development Control Plan No 16 - Subdivisions Manual.
16. A Subdivision Certificate will not be issued by the General Manager until such time as all conditions of Development Consent No K99/1733 have been complied with.
17. The creation of easements for services, rights of carriageway and restrictions as to user as may be applicable under Section 88B of the Conveyancing Act including the following:
 - i. Easements for sewer, water supply and stormwater drainage over ALL services on private property.
 - ii. A restriction as to user requiring that all roofwater from dwellings shall be discharged to an approved infiltration pit located on the subject property. The infiltration pit shall be approved by the Principal Certifying Authority.

Pursuant to Section 88BA of the Conveyancing Act (as amended) the Instrument creating the right of carriageway/easement to drain water shall make provision for maintenance of the right of carriageway/easement by the owners from time to time of the land benefited and burdened and are to share costs equally or proportionally on an equitable basis.

Any Section 88B Instrument creating restrictions as to user, rights of carriageway or easements which benefit Council shall contain a provision enabling such restrictions, easements or rights of way to be revoked, varied or modified only with the consent of Council.

18. Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742-1991 (Manual for Uniform Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.

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19. In pursuance of the provisions of the Disability Discrimination Act, 1992 (Commonwealth) the design of the proposed development shall facilitate access for the disabled in accordance with AS1428-1993 Parts 1 to 4 - Design for Access and Mobility.
20. Prior to the issue of a Subdivision Certificate, Council's standard "Asset Creation Form" shall be completed (including all quantities and unit rates) and submitted to Council.
21. Prior to commencement of work, a sign detailing the project and containing the names and contact numbers of the Developer, Contractor and Consulting Engineer shall be erected and maintained in a prominent position at the site to the satisfaction of Council. The sign is to remain in place until the Subdivision Certificate is issued.
22. It shall be the responsibility of the applicant to ensure that all times the 'Optus Cable' which traverses the subject site is protected from construction damage. The applicant must identify the location of the cable prior to the commencement of construction. The cover over the cable shall not be permanently increased or decreased without the consent of the owner of the cable.
23. All retaining walls in excess of 1.2 metres in height must be certified by a Qualified Structural Engineer verifying the structural integrity of the retaining wall after construction.
24. Any damage to property (including pavement damage) is to be rectified to the satisfaction of Council PRIOR to the issue of a Subdivision Certificate. The surrounding road carriageways are to be kept clean of any material carried onto the roadway by construction vehicles. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the issue of a Subdivision Certificate.
25. In accordance with Section 109F(i) of the Environmental Planning & Assessment Act, 1979 (as amended), a construction certificate for SUBDIVISION WORKS OR BUILDING WORKS shall NOT be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment.

Open Space

Casual Open Space

26. Management Lots 13 and 14 in the Stage 1 Consent S96/135 in so far as they relate to this Stage 3 consent are to be embellished in accordance with conditions 39(f) and 39(g) of Consent S96/135 for Stage 1 prior to the release of the linen plan for Stage 3 including:-
 - (i) removal of bitou bush and other noxious weeds

Reports from Director Development Services

- (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of Consent S96/135 for Stage 1 and good practice in this regard
- (iii) provision of adequate and appropriate security lighting for users of Lots 12, 13 and 14
- (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the Statement of Environmental Effects for Stage 1 (S96/135) as amended by the Landscape Master Plan submitted with the application.
- (v) The land between the constructed cycleway/walkway and the Lot 500 boundary and the western boundary of proposed Lots 13 and 14 in Stage 1 shall be embellished to enable the area to be used for passive open space including picnicking to the satisfaction of Council. Existing tree cover shall be maintained to the maximum extent possible.
- (vi) The cycleway/walkway corridor shall be landscaped and fenced in accordance with plans to be submitted and approved before work commences.
- (vii) Land on the eastern boundary of Lot 1 DP 811425 shall be dedicated and embellished in accordance with Conditions 26(i) to (vi), including the construction of a cycleway/walkway.

The dedication, embellishment and cycleway/walkway shall be generally consistent with the adjoining lots 13 and 14 in the Stage 1 consent S96/135.

CONTRIBUTIONS

27. (i) Payment of the following contributions pursuant to Section 94 of the Act and the relevant Section 94 Plan.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 94 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" signed by an authorised officer of Council.

These charges will remain fixed for a period of 12 months from the date of this consent and thereafter in accordance with the rates applicable in the current version/edition of the relevant Section 94 Plan current at the time of the payment.

A copy of the Section 94 contribution plans may be inspected at the Civic and Cultural Centres, Tumbulgum Road, Murwillumbah and Brett Street, Tweed Heads.

(ii) GST

If GST is applicable the following shall apply.

- 1.1 In this Clause 1:

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“GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a State or Territory Parliament which is charged or levied on goods, services or other things.

- 1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.
- 1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.
- 1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.
- 1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

GST payable = The GST inclusive market price of the asset x $\frac{1}{11}$.

- 1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

a. Tweed Road Contribution Plan:

82 lots @ \$2394 per lot \$196,308.00

S94 Plan No. 4 (Version 4.0)

(Duranbah/Cabarita/Kings Forest Development - Residential)

(iii) Heavy Haulage Component

Payment of a contribution pursuant to Section 94 of the Act and the Heavy Haulage (Extractive materials) provisions of Tweed Road Contribution Plan No. 4 - Version 4.1 prior to the issue of a construction certificate or subdivision certificate, whichever occurs first. The contribution shall be based on the following formula:-

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$\$Con_{TRCP - Heavy} = Prod. \times Dist \times \$Unit \times (1 + Admin.)$

where:

$\$Con_{TRCP - Heavy}$ heavy haulage contribution

and:

Prod. projected demand for extractive material to be hauled to the site over life of project in tonnes

Dist. average haulage distance of product on Shire roads

(trip one way)

$\$Unit$ the unit cost attributed to maintaining a road as set out in Section 6.4 (currently 2.5c per tonne per kilometre)

Admin. Administration component - 5% - see Section 6.5

b.	Street Trees: 82 lots @ \$42.90 per lot	\$3,517.80
	S94 Plan No. 6	
c.	Shirewide Library Facilities:	
	82 lots @ \$300 per lot	\$24,600.00
	S94 Plan No. 11	
d.	Eviron Cemetery/Crematorium Facilities:	
	82 lots @ \$126 per lot	\$10,332.00
	S94 Plan No. 13	
e.	Bus Shelters: 82 lots @ \$23 per lot	\$1,886.00
	S94 Plan No. 12	
f.	Emergency Facilities (Surf Lifesaving)	
	82 lots @ \$80 per lot	\$6,560.00
	S94 Plan No. 16	
g.	Extensions to Council Administration Offices & Technical Support Facilities	
	82 lots @ \$344.81 per lot	\$28,274.42
	S94 Plan No. 18	
h.	Cycleways: 82 lot @ \$160 per lot	\$13,120.00

Reports from Director Development Services

S94 Plan No. 22

Contribution to be credited against cost of works in condition 48(i).

i. Structured Open Space

82 lots @ \$640 per lot \$52,480.00

S94 Plan No. 19

j. Community Facilities: 82 lots @ \$497 per lot \$40,754.00

S94 Plan No. 19

28. In addition to the normal contribution required by S94 Plan No 16 – Emergency Facilities (Surf Lifesaving) an amount of \$55 per lot shall be paid towards the cost of providing Surf Lifesaving facilities within the area between Kingscliff and Cabarita (ie. 82 lots @ \$55 per lot = \$4510).
29. A certificate of compliance (CC) under Part 3 Division 2 of the Water Supply Authorities Act 1987 is to be obtained from Council to verify that the necessary requirements for the supply of water and sewerage to the development have been made with the Tweed Shire Council.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 64 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" and a "Certificate of Compliance" signed by an authorised officer of Council.

Annexed hereto is an information sheet indicating the procedure to follow to obtain a Certificate of Compliance:

GST

If GST is applicable the following shall apply.

1.1 In this Clause 1:

"GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a State or Territory Parliament which is charged or levied on goods, services or other things.

- 1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979 (NSW)* (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.

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- 1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.
- 1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.
- 1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

GST payable = The GST inclusive market price of the asset x $\frac{1}{11}$.

- 1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

Water: 82 lots @ \$3420 per lot \$280,440.00

Local Section 64 Water Supply Levy 82 lots @ \$205 per lot \$16,810.00

Sewer: 82 lots @ \$2820 per lot \$231,240.00

These charges to remain fixed for a period of twelve (12) months from the date of this consent and thereafter in accordance with the rates applicable in Council's adopted Fees and Charges current at the time of payment.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

FURTHER APPROVALS

30. Prior to commencement of work pursuant to this consent a Construction Certificate shall be obtained for the works proposed and required by this consent.

The following information must accompany applications for a construction certificate for subdivision work.

(i) Subdivision Work

In the case of an application for a construction certificate for subdivision work required by this consent:

- a) copies of compliance certificates relied upon

Reports from Director Development Services

- b) four (4) copies of detailed engineering plans and specifications. The detailed plans shall include but are not limited to the following:
- earthworks
 - roadworks
 - road pavement
 - road furnishings
 - stormwater drainage
 - water supply works
 - sewerage works
 - landscaping works
 - sedimentation and erosion management plans
 - location of all service conduits (water, sewer, NorthPower and Telstra)
 - the approved Traffic Control Plan
 - the relevant maintenance manuals (eg. G.P.T's, water pump station)

Where the proposed subdivision work involves a modification to previously approved plans the plans must be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the modification.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

31. Subdivision work in accordance with a development consent must not be commenced until:-
- (a) a construction certificate for the subdivision work has been issued by:
 - (i) the consent authority, or
 - (ii) an accredited certifier, and
 - (b) the person having the benefit of the development consent:
 - (i) has appointed a principal certifying authority, and
 - (ii) has notified the consent authority and the council (if the council is not the consent authority) of the appointment, and
 - (c) the person having the benefit of the development consent has given at least 2 days' notice to the council of the person's intention to commence the subdivision work.

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32. Prior to the issue of a Construction Certificate, a cash bond or bank guarantee (unlimited in time) shall be lodged with Council for an amount of \$10,000.

The bond may be called up at any time and the funds used to rectify any non-compliance with the conditions of this consent which are not being addressed to the satisfaction of Council.

The bond will be refunded, if not expended, when the final Subdivision Certificate is issued.

33. Prior to registration of the plan of subdivision, a Subdivision Certificate shall be obtained.

(i) The following information must accompany an application:

- original plan of subdivision prepared by a registered surveyor and 7 copies of the original plan together with any applicable 88B Instrument and application fees of \$110 per lot - 86 lots @ \$110/lot = \$9460
- relevant development consent or complying development certificate
- detailed subdivision engineering plans endorsed with a construction certificate (where applicable)
- for a deferred commencement consent evidence that the applicant has satisfied the consent authority on all matters which must be satisfied before the consent can operate
- evidence that the applicant has complied with all conditions of consent, that it is required to comply with before a subdivision certificate can be issued (where applicable)
- a certificate of compliance from the relevant water supply authority (where applicable)
- if a subdivision is the subject of an order of the Land and Environment Court under section 40 of the Land and Environment Court Act 1979 evidence that required drainage easements have been acquired by the relevant council
- for subdivision involving subdivision works evidence that:
 - the work has been completed, or
 - agreement reached with the relevant consent authority regarding payment of the cost of work or as to the time for carrying out the work, or
 - security given to the consent authority with respect to the completion of the work
- Work as Executed Plans for ALL works

Reports from Director Development Services

- (ii) Documentary evidence that all matters contained in Section 109J of the Act have been complied with.
- (iii) Written evidence from Council that the proposed road/street names have been approved.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

34. Prior to the application for a Subdivision Certificate a Compliance Certificate or Certificates shall be obtained from Council OR an accredited certifier for the following:-
- (i) Compliance Certificate - Roads
 - (ii) Compliance Certificate - Water Reticulation
 - (iii) Compliance Certificate - Sewerage Reticulation
 - (iv) Compliance Certificate - Sewerage Pump Station/vacuum pots
 - (v) Compliance Certificate - Drainage

- Note: 1. Where Council is requested to issue compliance certificates, applications for such certificates must be accompanied by documentary evidence from the Developers Supervising Consulting Engineer certifying that the specific work for which a certificate is sought has been completed in accordance with the terms of the development consent, the construction certificate, DCP16 - Subdivision Manual and good Engineering Practice.
2. Where Council is requested to issue the construction certificate all compliance certificates and a Subdivision Certificate, Council will carry out the following inspections as deemed necessary by Council based on the rates contained in Council's current Fees and Charges:-

Roadworks

- a. Pre-construction commencement erosion and sedimentation control measures
- b. Completion of earthworks
- c. Excavation of subgrade
- d. Pavement - sub-base
- e. Pavement - pre kerb
- f. Pavement - pre seal
- g. Pathways, footways, bikeways - formwork/reinforcement

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- h. Final inspections - on maintenance
- i. Off Maintenance inspection

Water Reticulation, Sewer Reticulation, Drainage

- a. Excavation
- b. Bedding
- c. Laying/jointing
- d. Manholes/pits
- e. Backfilling
- f. Permanent erosion and sedimentation control measures
- g. Drainage channels
- h. Final inspection - on maintenance
- i. Off maintenance

Sewer Pump Station

- a. Excavation
- b. Formwork/reinforcement
- c. Hydraulics
- d. Mechanical/electrical
- e. Commissioning - on maintenance
- f. Off maintenance

Council's role is limited to the above mandatory inspections and does NOT include supervision of the works, which is the responsibility of the Developers Supervising Consulting Engineer.

- 3. The EP&A Act, 1979 (as amended) makes no provision for works under the Water Supply Authorities Act, 1987 to be certified by an "accredited certifier".
- 35. Prior to the issue of a Subdivision Certificate, Works as Executed Plans shall be submitted in accordance with the provisions of DCP16 - Subdivisions Manual.

The plans are to be endorsed by a Registered Surveyor AND a Consulting Engineer Certifying that:

- (i) all drainage lines, sewer lines and structures are wholly contained within the drainage easement created by the subdivision;

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- (ii) the plans accurately reflect the Work as Executed.

Note: Where works are carried out by Council on behalf of the developer it is the responsibility of the DEVELOPER to prepare and submit works-as-executed plans.

36. Prior to the issue of a Subdivision Certificate a maintenance bond (in cash or unlimited time Bank Guarantee) shall be lodged with Council.

The bond shall be based on 5% of the value of the works which will be held by Council for a period of 6 months from the date on which the Subdivision Certificate is issued and will be refunded following the remedying of any defects arising within the 6 month period.

37. (i) PRIOR to lodging an application for a Subdivision Certificate, the applicant shall obtain the written approval of Council to the proposed road/street names. Approved names are to be in accordance with Council's Road Naming Policy adopted on 7 August 1996 and are to be shown on the Plan of Subdivision accompanying the application for a Subdivision Certificate.
- (ii) To avoid confusion resulting from duplication of private driveway/accessway name and public road/street names, the applicant shall submit to Council for approval the proposed name(s) of any private driveway/accessways.

The names shall be approved PRIOR to lodgement of any plan of subdivision in respect of the development.

Names which duplicate existing and approved street names will not be approved.

38. Before the commencement of the relevant stages of road construction, reports shall be submitted to Council from a Registered NATA Consultant demonstrating.
- That the pavement has been designed and constructed in accordance with subgrade analysis as per Austroads Pavement Design, A Guide to the Structural Design of Road Pavements.
 - That the pavement materials used comply with the specifications in RTA Form 3051 (June 1998)
 - That the pavement layers have been compacted to RTA specifications.
 - That site fill areas have been compacted to the specified standard.
 - That supervision of Bulk Earthworks has been to Level 1 and frequency of field density testing has been completed in accordance with Table 8.1 of AS 3798-1996.
 - That pavement testing has been completed in accordance with Table 8.1 of AS 3798-1996.
39. All lots must be graded and trimmed to prevent the ponding of surface water. Additionally, all lots must be adequately vegetated and action must be taken to prevent

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erosion from wind and/or water to the satisfaction of the Director, Development Services.

40. The Construction Certificate application shall include a provision for pavement design. The final design shall be approved by Council OR an accredited certifier prior to the placement of any road pavement material.

ROADS/STREETS

41. Provision of adequate vehicular access in accordance with Council's "Access to Property" pamphlet.
42. All proposed road/streets, drainage and associated works within the subdivision shall be designed and constructed in accordance with the development consent plans referred to in Condition 11 AND the relevant provision of DCP No. 16 - Subdivisions Manual, except where varied by the conditions of this consent.
43. The Engineering Plans and specifications to accompany the Construction Certificate application shall provide for:-
 - i. Construction of the roads in the subdivision generally in accordance with Figures E204 Rev A, E205 Rev A, E206 Rev A and E212 Rev B except where varied by these conditions and the table below:-
 - ii. Road cross sections employing "roll-over" kerbing with a minimum of 0.9m abutting grass filter verge containing street lighting and street trees, to discourage parking on the footpath.
 - iii. A native tree planting schedule for each of the roads in the table below showing the location and species of each street tree, clear of driveways and sight lines.
 - iv. Road No. 4 and the proposed temporary turning bay may be located within the adjacent Crown Road Reserve subject to condition 54.

Proposed traffic calming devices must comply with the relevant Australian Standard and the NSW Roads and Traffic Authority technical direction for raised platforms. Detailed design plans shall be submitted with the construction certificate application.

Figure	Road Number	Min. Road Reserve	Min. Carriageway Width	Min. Footway Width
E212 Rev B	1	20.0m	9.0m	5.5m (paved footway width 1.2m both sides)
E212 Rev B	2*	14.0m	7.5m	3.25m (single paved footway width 1.2m)
E212 Rev B	3	20.0m	7.5m	6.25m (single paved footway width 1.2m)

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E212 Rev B	4*	14.0m	7.5m	3.25m (single paved footway width 1.2m)
E212 Rev B	5	16.0m	7.5m	4.25m (single paved footway width 1.2m)

* Cul de sac at north end of Road 2 and south end of Road 4 shall be temporary only. Provision shall be made to ensure continuity by the connection of Road 2 to Road 4 in a public road reserve in future stages.

- 44. (i) A roundabout at the intersection of the ‘Connection Road’ and the ‘Existing Coast Road’ shall be designed and constructed in conjunction with Stage 6 in accordance with Austroads Part 6, ‘Roundabouts’ to cater for 13m long buses (28m outside diameter). Detailed design plans shall be submitted with the construction certificate application.
- (ii) A temporary “T” intersection shall be provided for this Stage.
- 45. All permanent cul-de-sacs shall be constructed with kerb radius of 9.0m and a minimum footway width of 3.0m.
- 46. The intersection of Road No. 3 and the existing Coast Road shall be constructed in accordance with Austroads Part 5, Intersections at Grade. If any future re-alignment of the Coast Road causes the closure of Road No. 3 then the applicant shall be responsible for all necessary works associated with its closure of this intersection. The necessary closure works shall be to the satisfaction of Council.
- 47. i. All cycleways, walkways and coastal walkways/cycleways shall be designed generally in accordance with Austroads Guide to Traffic Engineering Practice Part 14 and AMCORD provisions for single and shared footway/cycleways (Element 1.4 and PND17), and constructed in accordance with engineering plans and specifications which accompany the construction certificate application which shall be approved by Council.
- ii. Pursuant to Section 94 Plan No. 19 and Condition 39(a)-(e) of Development Consent S96/135 issued by the Land and Environment Court on 16 December, 1998, the applicant shall construct all cycleways, walkways and coastal walkways/cycleways applicable to Stage 3 as shown on Map 5 contained within Section 94 Plan No. 19.
- iii. Alternatively, the developer may, in the case of residential frontage footpaths, pay a cash contribution to the value of the works plus 25% in lieu of construction and Council will construct the footpath when the subdivision is substantially built out. The cost of these works shall be validated by a schedule of rates.
- iv. If the developer elects to construct the footpath prior to the issue of a Subdivision Certificate, a cash maintenance bond equal to 25% of the contract value of the footpath shall be lodged for a period of 3 years or until 80% of the lots fronting

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paved footpaths are built on. The maintenance bond shall be lodged prior to release of the subdivision certificate.

48. Pram ramps are to be constructed at road intersections in accordance with Council's Plan No. A4-96 to the satisfaction of Council.

DRAINAGE/FLOODING

49. All fill of new residential lots is to be graded at a minimum of 1% so that it drains to the street or other approved permanent drainage system and where necessary, perimeter drainage is to be provided to ensure minimal impact on adjoining properties. If filling is required, a plan of proposed drainage is to be submitted with the Construction Certificate application.
50. On completion of the filling work, all topsoil to be respread and the site to be grassed and landscaped with the exception of infiltration basins.
51. All roofwater from dwellings shall be discharged to infiltration pits located on each subject allotment. The design of the infiltration pits shall be submitted with the Application for the dwelling and approved by the Certifying Authority.
52. All proposed building pads are to be above the Q100 design flood level, including provision for any localised overland flow, such that at least 300mm freeboard is provided to the satisfaction of Council.
53. For the purpose of this condition "trunk drainage" shall be defined as the drain along the coastal frontage of the subject land to the south east corner of proposed lot 82 and the east/west continuation of this drain, downstream to Controlled Outlet No. 11 as generally located on Cardno MBK Figure E216 Rev B.

The ultimate point of discharge for this development shall be Controlled Outlet No. 11.

Trunk drainage shall be designed to convey Q₁₀₀ stormwater discharge. The trunk drainage shall be constructed and the land (containing the drain) dedicated to Council or easement created. In the section between proposed lot 70 and Controlled Outlet No. 11, the land to be dedicated (or easement) shall include the drain and provision for maintenance vehicle access, the maintenance vehicle access shall be constructed to an all weather, two wheel drive standard.

The trunk drainage along the coastal boundary, and elsewhere, shall be designed to accommodate Q₁₀₀ (no infiltration) flows with a minimum 300mm freeboard. Separate approval is required for any drainage along the coastal boundary that requires filling or any other ancillary works on adjacent land.

Where consistent with other land use requirements, grassed swale drainage is to be used in preference to pipes or hard lined channels. In designated public open space areas, open drains will only be permitted if the resultant landform is satisfactory to Council for open space purposes.

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54. The subject land shall be shaped in general accordance with Cardno MBK Figure E208 Rev B “Finished Surface Plan” as limited by Figure E229 REV A “Bulk Earthworks” except the levels adjacent to the Crown Road at the northern end of the subdivision shall not vary from the existing levels by more than 500mm (the Crown road on the northern boundary may be converted to public road, formed and drained to achieve this) and:

- Where the proposed levels are inconsistent with existing levels on adjacent land, retaining walls (and any necessary ancillary or drainage works) shall be provided on the lot boundaries to ensure the land shaping has no adverse affect on adjoining land. Plans and specifications of the retaining walls and ancillary works and the written approval of the adjacent landowner shall be submitted with the construction certificate application. *
- Provision shall be made to ensure surface runoff does not discharge onto adjoining land
- Provision shall be made to accept up to Q100 natural or existing surface runoff from adjacent land that discharges onto the subject land .

* As an alternative, the applicant may submit a proposal with the construction certificate application for simultaneous reshaping of both the subject land and adjacent land. Such a proposal must be authorised by all affected land owners and indemnify Council from any action resulting from the execution of the proposal or any landforming activity that may adversely affect adjoining land.

55. Permanent Stormwater Quality Treatment

(a) Stormwater Quality Objectives

Permanent stormwater quality treatment shall comply with “*Tweed Urban Stormwater Quality Management Plan*” (adopted by Council 19 April 2000) section 5.5.3 “Stormwater Objectives During the Post Construction or Occupational Phase of Development” . New development is required to comply with table 5.4 and demonstrate compliance by modelling in accordance with section 5.5.4 of the Plan:

Section 5.5.5 of the plan further advises that treatment that is in accordance with the “deemed to comply” provisions of *Appendix E - Tweed Shire Council, Aus-Spec D7 - Stormwater Quality* is deemed to comply with the objectives in 5.5.3”.

Table 5.4 Stormwater Treatment Objectives for Post Construction (Occupational) Phase of Development

Pollutant			
Nutrients	Maximum permissible load that may be discharged kg/ha/year		
	Average year (1719mm)	Wet Year (2185mm)	Dry Year (929mm)

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Suspended solids (SS)	300	400	120
Total Phosphorus (TP)	0.8	1.1	0.35
Total Nitrogen (TN)	4.5	6	1.5
Litter	Retention 70% of annual litter load greater than 5mm		
Coarse sediment	Retention of 90% of annual load of sediment coarser than 0.125 mm		
Oil and grease (hydrocarbons)	<10 mg/litre in flows up to 40% of Q1 peak.		

Note: The Water Quality Management and Monitoring Program contained in Cardno MBK letter of 21 February 2000 containing proposals for Water Quality Management generally achieves the above objectives.

(b) Water Sensitive Design

Water sensitive design practices shall be adopted. Where it is practical, water quality features are to be designed into the land development site rather than rely on special end of pipe devices to strip pollutants and nutrients from stormwater prior to discharge. Typical water quality features that can be designed into the site development include use of porous pavements, directing runoff over filter strips or grass swales in landscaped areas, utilising landscaping as an integral part of stormwater quality management, maximising use of infiltration and stormwater reuse. These features can be complemented by site management practices which minimise creation of stormwater pollutants and nutrients and provide for appropriate operation, cleaning and maintenance of water quality control devices.

(c) Infiltration

- i. infiltration areas are to be sized with a safety factor of 2 (this is to allow for long term deterioration in infiltration rate).
- ii. Runoff entering infiltration trenches/basins shall be pretreated to remove sediment and gross pollutants.
- iii. The infiltration rate for infiltration devices shall be determined as follows:
 - Conduct percolation tests on the site in accordance with Appendix B of A.S. 1547-1994, Disposal Systems for Effluent from Domestic Premises,
 - If the above calculation yields a result <6m/day, this rate may be used for design,
 - If the result is >6m/day, the rate for design may not exceed 6m/day unless this rate is confirmed by independently determining the coefficient of permeability of the soil in accordance with AS 1289.6.7.3.

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Notwithstanding these tests, the maximum infiltration rate that may be used for design and sizing purposes is 12m/day.

(d) Specific Requirements

Permanent stormwater quality devices are to be designed in accordance with these conditions and “Tweed Urban Stormwater Quality Management Plan” Appendix E – Tweed Shire Council Aus-pec D7 – Stormwater Quality, and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate Application.

Unless stated otherwise, **references in brackets** refer to sections on devices in NSW EPA publication “Managing Urban Stormwater - Treatment Techniques, November 1997”.

- Roof drainage. All future roof drainage is to be discharged to infiltration trenches located on each contributing allotment or on other land appropriately title burdened to the contributing allotment. Infiltration trenches shall be designed in accordance with the following criteria:
 - As a minimum requirement, trenches are to be sized to accommodate the ARI 3 month storm (deemed to be 40% of the ARI one year event) and infiltrate this storm within a 24 hour period, with a safety factor of 2, before surcharging occurs
 - Surcharge overflow from the infiltration area to the street gutter, interallotment or public drainage system must occur by visible surface flow, or approved equivalent.
 - Runoff is to be pre treated to remove contaminants prior to entry into the absorption areas (to maximise life of absorption areas between major cleaning/maintenance overhauls).
 - If the site is under strata or community title, the strata/community title plan is to ensure that the absorption areas are contained within common areas that remain the responsibility of the body corporate (to ensure continued collective responsibility for site drainage).
- Where consistent with other land use requirements, grassed swale drainage (Ref 5.2) is to be used in preference to pipes or hard lined channels.

Note: Swales are not preferred as a substitute for kerb and gutter

- *where on street parking is required, unless cars can be excluded from swale area*
- *on roads serving small lots with numerous driveways*
- *where gradients are <1% or >5%)*

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- Oil/Grit Separators (ref 4.7), permanent pool 30m³ per impervious hectare, with 50-70% of this volume in first chamber (or equivalent devices approved by Council) are to be provided in the underground road/hardstand stormwater drainage systems to remove sediment, litter and oil/grease prior to discharge onto the coastal drain/infiltration area, ie. at the following locations: - East side of Roads 2 and 4 between proposed lots 69/68, 59/58 and 41/40.
 - Infiltration basins (ref 5.6) shall be provided prior to Controlled Outlet No 11, to infiltrate runoff from stormwater flows of up to 40% of ultimate $Q_{1 \text{ year}}$. Infiltration basin sizing shall be determined on a catchment basis. For the purpose of this consent a "catchment" shall be the total area draining controlled outlet No. 11. The infiltration basins shall be contained within reserves to be dedicated to Council. The basins may only be contained within designated public open space areas, if the resultant landform is satisfactory to the Director of Environment and Community Services. Infiltration basins are to consist of raw dune sand with a minimal vegetation cover of endemic dune grasses. No topsoil, mulch or other vegetative matter is to be used on infiltration basin surfaces and no establishment, operation or maintenance procedures are permitted that may reduce surface permeability.
56. The earthworks shall be carried out in accordance with AS 3798-1996, "Guidelines on Earthworks for Commercial and Residential Developments". In general, material shall be placed in layers not exceeding 300mm in depth, watered and compacted to achieve the specified density ratio as monitored in Table 5.1 - Guidelines for Minimum Relative Compaction.
57. The earthworks program shall be monitored by a Registered Geotechnical Testing Consultant to a level 1 standard in accordance with Appendix 6, AS 3798-1996. In addition, the frequency of field density testing shall be to a Type 1 standard in accordance with Table 8.1 of AS 3798-1996. The geotechnical report shall be accompanied by a certificate from a registered Geotechnical Engineer certifying that the filling operations comply with AS3798-1996.
58. Prior to final acceptance of the Stormwater system and release of the maintenance bond a CCTV inspection of the stormwater pipes will be required to demonstrate that the standard of the stormwater system is acceptable to Council.
- All costs associated with the CCTV inspection and repairs shall be borne by the applicants.
59. All stormwater discharged from the site including dewatering discharge is to be directed to a sediment pond/infiltration basins prior to final discharge into any waterway. The sediment ponds or other approved devices are to be maintained in good condition until the maintenance bond is released.
60. Regular inspections shall be carried out by the Supervising Engineer on site to ensure that adequate erosion control measures are in place and in good condition both during and after construction.

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Additional inspections are also required by the Supervising Engineer after each storm event to assess the adequacy of the erosion control measures, make good any erosion control devices and clean up any sediment that has left the site or is deposited on public land or in waterways.

This inspection program is to be maintained until the maintenance bond is released or until Council is satisfied that the site is fully rehabilitated.

SERVICES

Sewer

61. The applicant shall lodge detailed engineering plans with the construction certificate application for the Sewerage Reticulation and Pumping System.
62. i. Prior to issuing a Subdivision Certificate, outfall sewerage reticulation shall be provided to all lots within the subdivision including a minimum 150mm diameter sewer junction terminated at least 1.0m inside the property boundary of each lot in accordance with engineering plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

Council does not permit the building over Council's sewers. When buildings are located in close proximity to the sewer, detailed plans of footing types, location and depth relative to the sewer are required to be included with the Construction Certificate Application.

- ii. Any sewerage works required by the Stage 1 consent S96/135 which have been bonded shall be completed to the satisfaction of the Director of Engineering Services **PRIOR** to the release of the linen plan.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Water

63. Prior to issuing a Subdivision Certificate, Town Water shall be provided to each lot including a minimum size 25mm outside diameter water service terminated 1.0m inside the property boundary of each lot in accordance engineering with plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Telephone

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64. The production of written evidence from Telstra Australia certifying that satisfactory arrangements have been made for the provision of underground telephone supply prior to the issue of a Subdivision Certificate.

Electricity

65. i. The production of written evidence from NorthPower certifying that reticulation of underground electricity has been completed; and
- ii. The reticulation to include the provision of fully installed electric street and parkland pathway lights to the relevant Australian standard. Such lights to be capable of being energised following a formal request by Council, the proposed location and style of lighting standards (clear of other public utilities, private accesses and street trees) to be submitted with the Construction Certificate Application prior to the issue of a Subdivision Certificate.

ENVIRONMENT PROTECTION

66. Suitable covering and protection is to be provided to ensure that no material is removed from the site by wind, causing nuisance to neighbouring properties.
67. All battered areas are to be topsoiled and grassed, or other suitable protection provided as soon as filling is placed adjacent to neighbouring properties.
68. All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.
69. The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.
70. Where earthworks result in the creation of embankments and/or cuttings greater than 1m high and/or slopes within allotments 17^o or steeper, such slopes shall be densely planted in accordance with a detailed landscaping plan. Such plan to accompany the Construction Certificate application.

Such plans shall generally incorporate the following and preferably be prepared by a landscape architect:

- i) Contours and terraces where the height exceeds 1m.
- ii) Cover with topsoil and large rocks/dry stone walls in terraces as necessary.
- iii) Densely plant with sub-tropical (rainforest) native and native species to suit the aspect/micro climate. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.
- iv) Mulch heavily (minimum 300mm thick) preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.

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- v) The landscaping shall be completed to the satisfaction of Council PRIOR to the issue of a Subdivision Certificate.
 - vi) A bond shall be lodged prior to the issue of the subdivision certificate to ensure that the landscaping is maintained by the developer for a period of 6 months from the date of issue of a Subdivision Certificate. The amount of the bond shall be 20% of the estimated cost of the landscaping or \$3000 whichever is the greater.
71. All necessary precautions shall be taken to minimise impact from dust during filling operations from the site and also from construction vehicles.
72. The burning off of trees and associated vegetation felled by clearing operations is not permitted unless such burning is carried out in a specially constructed pit provided with an air curtain over the top. Separate approval is required prior to any burning.
73. Construction site work including the entering and leaving of vehicles is to be restricted to between 7.00 am and 7.00 pm Monday to Saturday and no work on Sundays.
74. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:
- A. Short Term Period - 4 weeks.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.
 - B. Long term period - the duration.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.
75. The following restrictions apply to dog and cat ownership and control on all residential lots:-
- i. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and the ownership of cats within the development shall be restricted to one de-sexed cat per allotment and such cats shall be restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.
 - ii. No dog shall be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.
 - iii. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.

These ownership and control requirements shall be reinforced by a Restrictions as to User under Section 88B of the Conveyancing Act, 1919-1964.

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A Section 88B Instrument creating the restriction as to user shall contain a provision enabling the restriction to be revoked, varied or modified only with the consent of Council.

76. All stormwater gully lintels shall have the following notice cast into the top of the lintel: 'DUMP NO RUBBISH, FLOWS INTO CREEK' or similar wording to the satisfaction of the Director of Development Services.
77. The use of vibratory compaction equipment (other than hand held devices) within 100m of any dwelling house is strictly prohibited.
78.
 - i. Submission and approval of a separate development application for those works to be undertaken in accordance with the Dune Management Plan and Lot 500 Management Plan required by Consent S96/135 issued by the Land and Environment Court on 16 December, 1998
 - ii. The Dune Management Plan and Lot 500 Management Plan shall be implemented in accordance with any development consent obtained pursuant to Condition 78(i) to the satisfaction of Council.
79. The Water Quality Monitoring and Management Program prepared by Cardno MBK dated 1 February 2000 is to be implemented and be amended to include an additional 3 groundwater monitoring points.

In addition the water quality objectives table is to be amended to include an objective for groundwater level alterations. These details are to be submitted to the satisfaction of Council prior to the commencement of works. Any alteration to this will need to be to the satisfaction of Council.

80. The Acid Sulfate Soils Management Plan prepared by Cardno MBK dated 1 February 2000 is to be implemented for the duration of the works.

Page 8 of the "Reporting" section is to be amended to include "Council will be informed within 7 days of any major complaint results, particularly in relation to exceedences of the nominated range for each water quality parameter".

The details are to be submitted to the satisfaction of Council prior to works commencing.

81. Construction phase stormwater quality treatment (erosion and sediment control) shall be designed and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate.

Erosion and sediment control shall be in accordance with *the "Tweed Urban Stormwater Quality Management Plan"* (adopted by Council 19 April 2000) section 5.5.2 "Stormwater Objectives During the Construction Phase of New Development". This section requires all new development to comply with Appendix E of the Plan "*Tweed Shire Council Aus-Spec D7 - Stormwater Quality*" and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works". Erosion and

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sediment controls shall remain in place until final approval is given and the maintenance bond has been released.

82. In accordance with Condition 34 of consent S96/135 for Stage 1, prior to issuing a Construction Certificate for development of any Management lot, all existing Bitou Bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof.
83. PRIOR to any work commencing pursuant to this consent, a suitable fence shall be erected on the alignment of the eastern extremity of the approved work to ensure that no unauthorised works or disturbance occur within Lot 500.
84. In accordance with the provisions of condition 41(d) of Consent S96/135 for Stage 1 and as required by the National Parks and Wildlife Service in their letter dated 24 May, 2000, the following requirements shall be complied with:-
 - i. Drainage swales/open space corridors rising east/west shall be replanted with suitable indigenous vegetation sourced locally to assist the east/west dispersal of wildlife.
 - ii. A minimum of 300 Banksias are to be planted in each development lot in areas of public and private open space. These trees may include large (greater than 10cm DBH) individuals translocated from areas where their clearing is essential for the development design. These trees should be located in clumps and as far away from urban areas and lighting as possible.
 - iii. All large mature Banksias, up to a maximum of 30 per lot, in public or private open space, drainage swales etc, are to be marked and retained unless their removal is approved by Council in order to satisfy its requirements for open space and/or the proponents design of the development. Where such a tree is removed, it shall be replaced by a tree of similar size, taken from an area where it would otherwise be lost, and translocated into an unconstrained area of the lot.
 - iv. The proponent shall monitor and maintain as necessary any translocated trees for a period of one year from the date of consent in order to promote their survival.
 - v. In respect of the north-western area, as identified in the Gunninah report, clearing is to be deferred for a period of four years from 1 June 1999, or an alternative biological timeframe to be agreed between the applicant, NPWS and Tweed Shire Council.
 - vi. In respect of the commercial area, clearing may commence within four years in accordance with an agreed biological timeframe provided that adequate mitigation measures can be demonstrated to NPWS and Tweed Shire Council.
85. Compliance with the conditions imposed by the Department of Urban Affairs and Planning in granting concurrence to development in the 7(f) zone as follows:-
 - a. No residential or associated buildings being erected on land zoned 7(f);

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- b. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;
- c. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and
- d. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.

Reports from Director Development Services

REPORT:

Council has received a development application (K99/1733) for the subdivision of the subject land into 86 lots which consists of 81 residential lots, 4 residue lots and 1 open space lot. The subdivision is known as Stage 3 of Casuarina Beach Development. The subdivision is proposed on land described as Management Lots 5, 7, 14 and Part 13 as approved for Stage 1. This land is located on the northern side of the Casuarina Beach site. A flora and assessment accompanies this application. The application seeks consent to subdivide the residential and part of the environmental protection (coastal lands) zoned land on the site. The site was zoned Residential/Tourist in 1989 for urban development following the preparation of the South Kingscliff Study.

The following is a history of development consents relating to the entire Kings Beach site.

- On 16 December, 1998 the Land and Environment Court issued development consent S96/135 for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. The construction of the new Coast Road is now completed. However, compliance with all conditions of this consent has not been completed and the linen plan has not been submitted. In addition, a Section 96(2) application has been submitted to modify this consent. This has not been determined by the Land and Environment Court.

It is considered that all relevant conditions of development consent S96/135 have been satisfied or can otherwise be addressed by the recommended conditions.

- On 30 September, 1999 Council received development application K99/1360 for the subdivision of management lots 1, 2, 12 and parts of 3, 9 and 13 into 82 lots at the Kings Beach site. This is otherwise known as Stage 2 of the development of the Kings Beach site. This application is the subject of a separate report.
- On 6 December, 1999, Council received development application K99/1732 for the subdivision of management lots 3, 4, 9 and part 13 into 101 lots at the Kings Beach site. This is otherwise known as Stage 4 of the development consent of the Kings Beach site. This application is the subject of a separate report.
- The applicant's have lodged a deemed refusal appeal for each of the applications (Stages 2, 3 and 4) with the Land and Environment Court.

Consent S96/135 (Stage 1)

As previously discussed the Land and Environment Court issued consent for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. Compliance with all the conditions of this consent has not been completed and the final linen plan (Subdivision Certificate Application) has not been submitted.

Conditions of consent S96/135 which affect this application are discussed below:-

“A (i) *The subdivision of the land into 14 lots as shown generally on the Subdivision Plan*”.

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Comment:

The application is generally consistent with the Subdivision Plan.

“A (iii) The development of the management lots for the purposes of low and medium density residential, retail, commercial and tourist development together with associated and related uses and facilities generally in accordance with the Development Plan”.

Comment:

The Stage 2 Development Master Plan is not the same as the Development Plan but is considered to be “generally in accordance” with same.

The Kings Beach Concept Master Plan submitted with the development application is not the same as the Development Plan approved by the Court. The Kings Beach Concept Master Plan includes the former Narui Coastal Site and accordingly, it is considered that the Stage 1 consent should be modified to include the Kings Beach Master Plan in lieu of the Development Plan.

“1. The total population yield from the development of the Management Lots in accordance with the further development consents referred to in Condition 2 shall be based upon the following estimates:

<i>Lots</i>	<i>Population</i>
<i>1</i>	<i>550</i>
<i>2</i>	<i>620</i>
<i>3</i>	<i>1100</i>
<i>4</i>	<i>700</i>
<i>5</i>	<i>1520</i>
<i>6</i>	<i>400</i>
<i>7</i>	<i>710</i>
<i>Total</i>	<i>5600</i>

Comment:

This application does not achieve the population yields for lots 5 and 7. The estimated population yields in the Stage 1 consent for management lots 5 and 7 is 2,230 persons. The application indicates the population yield for lots 5 and 7 at 1841 persons, which is well below the estimate of 2,230. In addition, the proposal also includes the Richtech Land (Lot 1 DP 811425) which has not been included in the population yields in the above table or in the DCP and Section 94 Plan. The Richtech Land may affect the population yields. (See section (iii) of this report under DCP11 - Kings Beach for further comments on this issue). The DCP11 and Section 94 Plan should be

Reports from Director Development Services

amended to reflect the above figures in the event that Council approves this development application.

- “3. *The development shall be carried out generally in accordance with the Development Plan, except where varied by these conditions*”.

Comment:

See A(i) above.

- “18 (iv) *A report detailing water sampling results from the surface water and groundwater monitoring programs shall be submitted to Council prior to the commencement of any new stage of the development, including details of any relevant previous failure to meet water quality discharge objectives or standards. The report shall include a recommendation as to any proposed amelioration works required to be implemented to rectify the said failures and shall further include an indication as to whether the development may satisfactorily proceed.*”

Comment:

A Water Quality Monitoring and Management Program has been submitted for this application and is to the satisfaction of the Environment and community Services Division.

- “32. *The following controls shall apply to dog and cat ownership and a restriction as to user shall be created on the Management Lots under Section 88B of the Conveyancing Act, 1919-1964 in the following terms:*

- i. No property owner shall have more than one dog or one de-sexed cat;*
- ii. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and that any owners of cats within the development be restricted to one de-sexed cat per allotment and to have their cats restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.*
- iii. No dog to be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.*
- iv. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.*

This section 88B Instrument shall make provision for amendment, revocation or variation of restriction required by this conditions only with the approval of Council as the authorised authority.”

Comment:

This condition should be imposed on any consent for this application.

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“34 Prior to issuing a construction certificate for future development of any Management Lot, all existing Bitou bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof”.

Comment:

This condition should be imposed on any consent for this application.

“35. A Dune Management Plan shall be prepared to the satisfaction of the Director of Development Services in respect of the Foredune lands adjoining the Land and be submitted in conjunction with the Part XII Engineering Plans”.

Comment

A Dune Management Plan has been submitted and approved by Council but not the Department of Land and Water Conservation.

The applicant and Lenen Pty Ltd have prepared an amended Dune Management Plan for the approval of Council’s Director of Development Services and DLWC. This Plan has been submitted to DLWC for comment and is subject of reports to the Council and Reserves Trust meetings of 24 May.

In addition, development consent is required for the works proposed in the Dune Management Plan. The applicant has been requested to submit a development application for this work to enable both applications to be assessed and determined on an integrated basis. To date, no application has been received for the works proposed by the Dune Management Plan. It is therefore considered that any consent should be conditioned to require submission of this development application.

“38. The land shown on the Subdivision Plan as Lots 8, 9, 10, 11, 12, 13 and 14 shall be dedicated to the Council as public open space at no cost in conjunction with registration of the linen plan of subdivision creating the allotments”.

Comment:

These lots have not been dedicated to date, however a condition is recommended requiring dedication prior to the issue of a Construction Certificate.

“39a The proposed regional coastal walkway/cycleway within Land zoned 7(f) as shown on the Development Plan shall be constructed generally in accordance with detailed engineering plans to be submitted prior to the release of the Stage 1 linen plans of subdivision and approved prior to work on the said walkway/cycleway commencing”.

Comment:

The coastal walkway/cycleway shown on the application plans appears to be generally consistent with the Stage 1 Development Plan. The Stage 1 linen plan has not been submitted and final engineering plans for the cycleway/walkway have not been submitted. However, this does not preclude approval of this development application subject to appropriate conditions.

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39b Construction of each section of walkway/cycleway immediately east of any management lot shall be completed prior to the release of the linen plan for future subdivision of the respective management lot”.

Comment:

This condition should be imposed on any consent.

“39c Notwithstanding the previous paragraph the walkway/cycleway adjacent to Lots 1, 2, 3, 4, 5, and 7 must be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1 or the re-subdivision of the management lots or immediately following construction of the cycleway/walkway from Cudgen Headland to the northern boundary of the land, whichever occurs first”.

Comment:

This will be included as a condition on any consent for this application.

“39e The design of the walkway shall be integrated with any adjacent proposed car parking areas and beach access points and shall extend for the full frontage of the land including, where necessary, within the Crown Foreshore Reserve subject to the written approval of the Reserves Trust”.

Comment:

Any consent will be conditioned appropriately.

“39f The application and/or owner shall prepare and submit a plan for the approval of the Director of Development Services within 6 months of the release of the linen plan for Stage 1 for the embellishment works on Lots 12, 13 and 14 and such plan shall provide for:

- (i) removal of bitou bush and other noxious weeds.*
- (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of the Consent Orders and good practice in this regard.*
- (iii) provision of adequate and appropriate security lighting for users of Lots 12, 13 and 14.*
- (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the statement of Environment Effects”.*

“39g (i) A schedule for the implementation of the embellishment works including the relationship between the works set out in f(iii) and (iv) to the development of any management lots shall be submitted and approved by the Director, Development Services as part of the plan referred to in Condition 39(f).

- (ii) The embellishment works required by Conditions 39(f)(i-iv) shall be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1.*

Reports from Director Development Services

- (iii) *If the walkway/cycleway or any part thereof is constructed in accordance with Condition 39(b) then the embellishment works referred to in this condition or in Condition 39(f)(i-iv) shall be carried out concurrently in respect of Lots 12, 13 and 14 in which the walkway/cycleway is constructed.*
- (iv) *If at the time of sale by Lenen Pty Ltd of any of lots 1 to 5 and 7 and the embellishment works referred to in Condition 39(f)(i-v) have not been completed in Lots 12, 13 and 14 as those lots are immediately east of the management lot as then sold the applicant shall provide in respect of those embellishment works a bond equivalent to the cost of those works plus 20%”.*

Comments:

It is considered that the requirements of conditions 39(f) and 39(g) can be adequately conditioned on any consent for this application.

- “41(a) *Any development application with respect to any of the Management Lots shall provide for the planting of not fewer than the number of Banksia integrifolia shown in the Table hereunder against each such lot and totalling not less than 5400 stems provided that those numbers shall be reduced so that they total the difference between 14000 and the total number of stems planted pursuant to condition 40 (where they total more than 8600).*

To avoid the potential for a Banksia monoculture, the numbers of Banksias proposed for replanting shall include a proportion of other relevant flowering native species depending on the location for replanting. These other relevant species shall be of a type that provides a food source for the Queensland Blossom Bat. Approximately 20% of the planting shall comprise other relevant flowering species.

Lot No	Compensatory Planting (stem numbers)
1	690
2	382
3	1256
4	1232
5	1435
6	49*
7	356
Total	5400

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Comments:

An extract from the report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates is provided as follows:

“Stage 1 Consent condition 41(a) notes that a development application with regard to any of the Management lots shall provide for the planting of not fewer than the number of Banksia shown in the table hereunder against each lot.

Table 11

Mitigation Required as per Stage 1 Consent

Lot No.	Compensatory Planting
1	690
2	382
3	1256
4	1232
5	1435
6	49
7	356
Total	5400

The combined total for the Study site is 1072 Banksia trees. As the development of the Study site will not result in the Blossom Bat population being in energy deficit, it is considered that these plantings are not critical. However, 15000 trees have been planted nearby which more than compensated for losses in the Study site.

15000 trees have been planted in accordance with the Vegetation Management Plan. Plantings have predominantly been undertaken on Management Lot 8 (west of the new Coast Road) and the Richtech land in the areas defined in the Amelioration plan”.

Based on advice from NPWS dated 16 May, 2000, this condition has been complied with subject to a minimum of 300 Banksias being planted in each Management Lot. This will be conditioned appropriately. See further comments in relation to Condition 41(d), 46 and 47.

“41(b) Any such planting shall be carried out before the linen plan of subdivision of any such Management Lot is released.

Total of 1 and 2 = 1072

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Total of 6 and 7 = 405”

Comment:

See comments relating to condition 41(a) above.

“41(c) The Applicant shall within 6 months of the date of this consent provide to the Council and the National Parks and Wildlife Service an estimate of the number of productive inflorescences that are within the site of the relocated Coast Road and the Management Lots at that time.”

“41(d) Where an application is made for consent to the development of a Management Lot within 8 years of the completion of the planting referred to in Condition 40, the applicant for such consent shall be required, prior to such a consent being granted, to satisfy the National Parks and Wildlife Service that the removal of any Queensland Blossom Bat foraging resource from that Management Lot will not unduly reduce the total productive inflorescences referred to in (c) above or that such removal may proceed notwithstanding any such reduction”

Comment:

A report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates Pty Ltd dated September 1999, accompanies the application. This report has been sent to the National Parks and Wildlife Services and a copy of their response dated 16 May is attached. In summary, the NPWS has approved the selective removal of habitat in Stages 2, 3 and 4 in accordance with condition 41(d), subject to further conditions which are included in the recommendation.

Lenen has lodged a Section 96 application with the Land and Environment Court to modify Condition 41(d) of the Stage 1 consent as follows:-

1. Delete condition 41(d) and insert instead the following condition:-

“Prior to the issue of a subdivision certificate for the subdivision of any management lot, the applicant shall plant 300 Banksia integrifolia per lot within that lot in public areas such as road reservations, car parks and open space areas”.

2. Amend condition 47 by deleting the words ‘condition 42’ and insert instead the words ‘condition 41(a)’.

The Section 96 application was reported to Council’s meeting of 5 April, 2000, following which Council resolved as follows:-

- “1. Receives and notes this report.*
- 2. Officers, in connection with the National Parks and Wildlife Service, continue to negotiate with Lenen Pty Ltd with a view to negotiating an “out of court” resolution.*
- 3. Raises no objection to the modification of Condition 47”.*

Comment

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In their letter dated 16 May, 2000, the National Parks and Wildlife Service has agreed to the selective removal of habitat in Stages 2, 3 and 4 and therefore there is now no apparent need to modify Condition 41(d).

- “46. *Monitoring of the plantings in condition 40 shall occur every three months for the first year and thereafter at six monthly intervals unless otherwise agreed. A monitoring report shall be produced every six (6) months and shall make recommendations regarding any ongoing modifications to the Planting for the approval of the Director of Development Services based upon advice from the National Parks and Wildlife Service. These recommendations shall include the need to replace any unsuccessful plantings up to four years after initial planting and which may have been unsuccessful or destroyed. The NPWS and DDS reserve the right to inspect progress at any time.*
47. *No approval shall be granted for development of any Management Lots unless the monitoring reports referred to in Condition 46 are sufficient to satisfy the Director of Development Services based upon advice from the National Parks and Wildlife Services that the plants are maturing in accordance with the programme set out in the Vegetation Management Plan. Each subsequent development application will detail the locations, timing and methodology of any further plantings proposed in accordance with Condition 42 above”.*

Comment:

The applicant has submitted the first Monitoring Report dated 15 September 1999 and that report was to the satisfaction of the NPWS. The second monitoring report was submitted to the NPWS on 5 May, 2000 and the Service has responded as follows:-

“There has been insufficient time since receipt of the second monitoring report for the NPWS to provide a detailed review. A brief study suggests that, although most of the 15,000 planted trees seem to be surviving, current growth seems to be slow. At this rate, it appears unlikely that sufficient compensatory foraging resource will be available within the next eight years (the original timeframes) and certainly not within the next four years (the revised timeframe)”.

In view of the Services comments in relation to Condition 41(d) and having regard to the recommended conditions arising from the NPWS letter of 16 May, 2000 and 24 May, 2000, the Director of Development Services is satisfied that conditions 46 and 47 have been complied with to a sufficient extent to enable the Stage 2, 3 and 4 applications to be recommended for approval.

- “49. *The applicant shall have prepared a Environmental Plan of Management by a suitably qualified person in conjunction with the Dept. of Land and Water Conservation and the Director of Development Services in respect of so much of Lot 500 as adjoins the Land that addresses any potential impacts on any threatened species, eg., oystercatchers, Little Terns and turtles, found using the beach and foredunes. This plan shall consider the exclusion of the public, domestic pets, feral animals, and four wheel drives from any detected nesting or roosting areas and the replanting of the dunes with suitable native vegetation including Banksias.”*

Reports from Director Development Services

Comment

See comments for condition 35.

Deed of Agreement.

The terms of the Deed of Agreement for the Stage 1 consent which affect the proposed Stage 2 application are discussed below:

“2.2 Richtech shall execute a transfer to the Council of the Amelioration Land for the amount of \$1 within 28 days of the Consent becoming operational pursuant to the Act. The transfer shall not be registered by the Council and shall be held in escrow until the Amelioration Land has been dedicated to Council pursuant to the Section 94 Plan whereupon the said transfer shall be cancelled and returned to Lenen.”

Comment:

The amelioration land has not been transferred to Council, however this would not preclude determination of this application.

“2.7 Council shall not object to the closing and transfer to Lenen of any reserved roads within the Development Land which are rendered unnecessary by the Development, subject to alternative legal access being made available when any closing would sever public access to the beach or Lot 8. The Council will cooperate with Lenen in any application by Lenen to close the said roads.”

Comment:

The subject land is affected by a Crown Public Road however no lots are proposed over the Crown Public Road. Any future development application for subdivision on the Crown Road will require this road to be closed.

DESCRIPTION OF THE PROPOSAL

The subdivision application seeks development consent for the subdivision of the land at Casuarina Beach identified as management lots 5, 7, 14 and part 13. The proposal is to subdivide the land into 86 lots consisting of 81 residential lots (45 beach front lots and 36 in land lots), 4 residue lots (lots 82, 84, 85 and 91 which will be developed subject to future development applications); and one open space lot (Lot 83).

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FIGURE 1 - LOCALITY PLAN

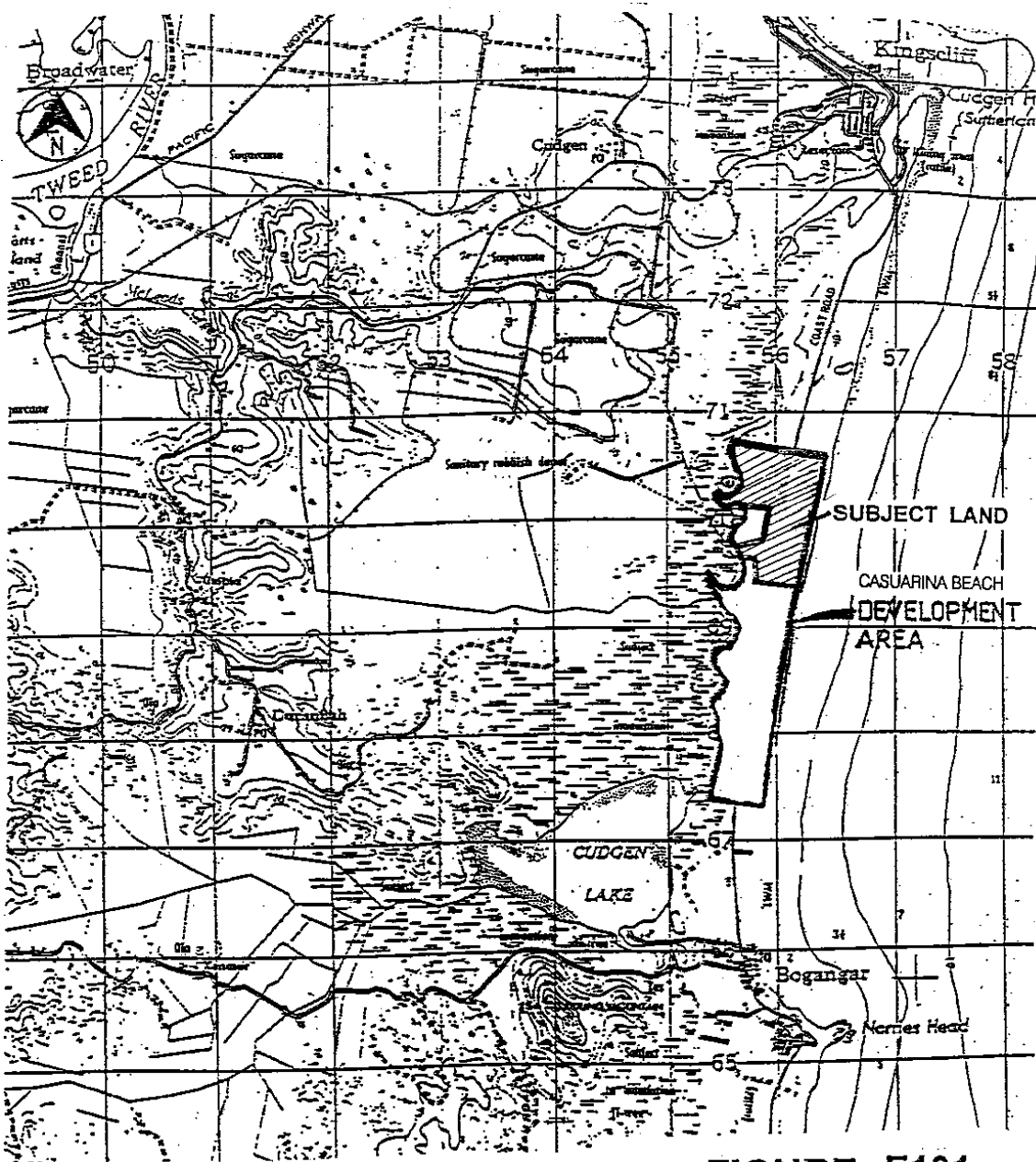


FIGURE E101

LOCALITY PLAN

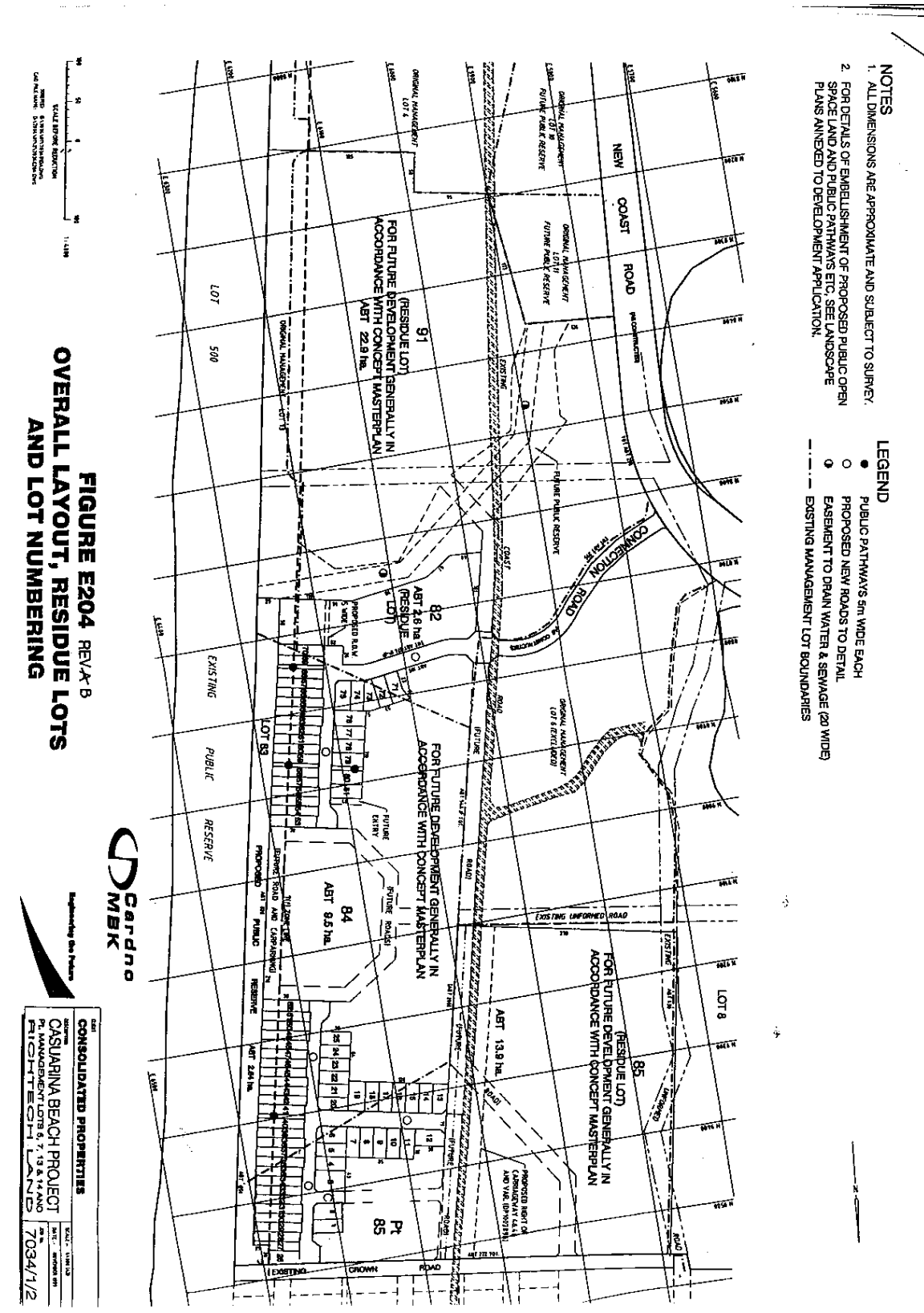


Engineering the Future

CLIENT	CONSOLIDATED PROPERTIES		
DESCRIPTION	CASUARINA BEACH PROJECT PT. MANAGEMENT LOTS 5, 7, 13 & 14 AND RICHTECH LAND		
SCALE	1:10000 A3	DATE	NOVEMBER 1999
JOB No.	7034/1/2		

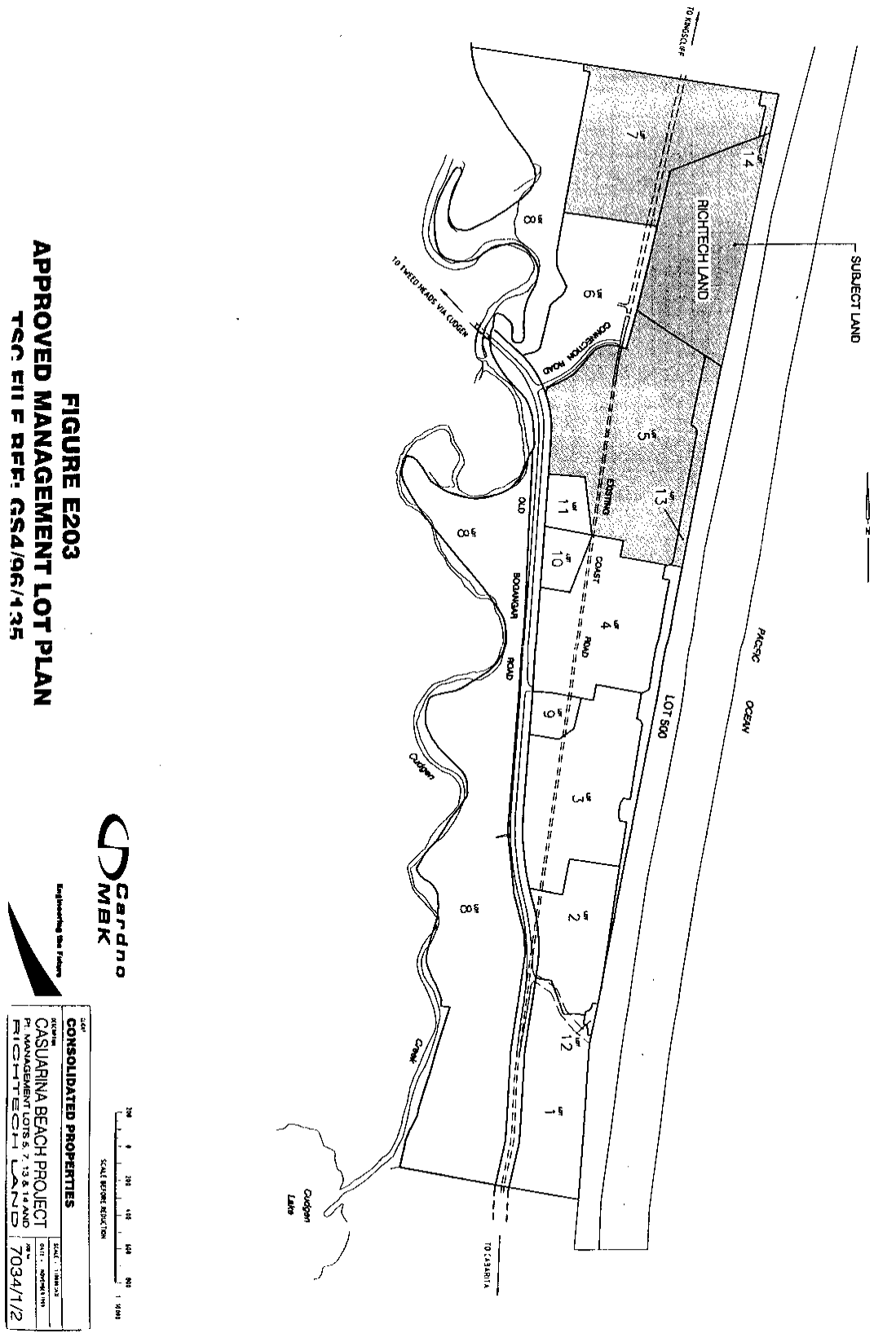
Reports from Director Development Services

FIGURE 2 - SUBDIVISION PLAN



Reports from Director Development Services

FIGURE 3 - KINGS BEACH MANAGEMENT LOT PLAN



Reports from Director Development Services

CONSULTATION

This application was referred to the following Government Authorities.

1. National Parks and Wildlife Service (NPWS)
2. Department of Urban Affairs and Planning (DUAP)

A summary of the Government Authority submissions is provided below with comments where appropriate.

1. National Parks and Wildlife Service

The application is accompanied by a flora and fauna assessment and a report on the impact on the Common Blossom Bat habitat. These reports, together with the application have been sent to the NPWS for their comment. A copy of the Services response dated 16 May, 2000 is attached to this report. The NPWS comments are provided below in summarised form and comments provide where appropriate.

* **Relationship of the Stage 1 consent (S96/135) to the Development Application**

“NPWS seek Council’s advice on whether the Stage 1 consent orders are relevant for the purposes of continuing assessment of Stages 2, 3 and 4 development applications.”

Comment

The Stage 1 consent (S96/135) remains relevant to Stages 2, 3 and 4 development applications and as previously discussed in this report the Stage 1 consent affects these applications and needs to be considered.

It is considered that the proposal is generally consistent with the Stage 1 consent.

* **Threatened Species Impacts and the Status of the Development Applications**

“It is the responsibility of Council, not the NPWS to determine whether a SIS is required based on Council’s evaluation of a Section 5A Assessment prepared in accordance with the provisions of the Environmental Planning & Assessment Act, 1979.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

In correspondence dated 24 May, 2000, the NPWS provided comments on the 8 point test report and a copy of their letter is attached.

Reports from Director Development Services

* Threatened Species Issues

NPWS have previously expressed concern with the extend of removal of Queensland Blossom Bat habitat.

The Blossom Bat

“The NPWS has received a formal request from the applicant to consider approval under Condition 41(d) of the Stage 1 consent for the removal of certain Blossom Bat habitat. The NPWS has reviewed extra information (dated April 2000) provided by Gunninah Environmental Consultants and is in receipt of the second monitoring report about the compensatory Banksia plantings.

The Gunninah report fails to detail the extent of low density Banksia proposed to be removed. However, by inclusion of low density data provided by Sinclair Knight Merz, the NPWS has concluded that about 29ha of Banksia habitat will be affected whilst removal of the remaining 19ha will be deferred. The deferral area hold over half of the high quality habitat.

The majority of the area proposed for clearing contains lower densities of Banksias, providing less feeding resource.

About 107ha of potentially suitable habitat is within the foraging range of the bats. Of this 87ha are Banksias. The removal of higher quality habitat from within the Casuarina Beach site represents about 12% of total potential habitat. It is likely that the usage of area outside the subject site is occurring and there is some kind of biological balance. However, it has not been satisfied that these areas are likely to be under utilised or be able to accommodate any bats displaced by the habitat removal. The NPWS concludes that a reduction in number of bats in the vicinity is likely to result from the proposed clearing.

The second monitoring report suggests that although most of the 15,000 planted trees are surviving, growth seems to be slow. At this rate it appears that sufficient compensatory foraging resource will not be available within the next 8 year and certainly not within the next 4 years.

After consideration of the above and in accordance with Condition 41(d), the NPWS approves the selective removal of habitat in Stages 2, 3 and 4 despite the reduction in productive inflorescences subject to inclusion of clauses reflecting the following in the Development Consents:

- A minimum of 300 Banksias are to be planted in each development lot in areas of public or private open space. These trees should be located in clumps and as far away from urban areas and lighting as possible.*
- All large mature Banksias (in excess of 10 cm DBH), up to a maximum of 30 per lot, in public or private open space, drainage swales, etc are to be marked and retained.*
- Clearing of the north-western deferred area, as identified in the Gunninah report, is to be prohibited for a period of at least four years and any approval after that shall*

Reports from Director Development Services

be subject to an agreed biological timeframe to be determined by the result of the ongoing monitoring program.

- *Clearing of the commercial area is to be prohibited for at least four years.*

Notwithstanding the above approval, concurrence may still need to be sought from NPWS in relation to other threatened species conditions should Council conclude significance with respect to S5A assessments for the Stage 2, 3 and 4 DAs as discussed below.”

Comment

As previously discussed, having regard to the above NPWS comments, it is now considered that Condition 41(d) of Consent S96/135 is satisfied subject to imposition of the amended conditions contained in the NPWS letter dated 24 May, 2000.

* Other Threatened Species

“The NPWS is aware of threatened species records, including marine turtle and Glossy Black Cockatoos, that were either not known or did not exist at the time that the Stage 1 SIS was produced.

The NPWS considers that retention of the Horsetail Oak, and other native dune vegetation, together with a proactive dune rehabilitation plan and appropriate controls on beach usage and lighting are essential to the continued conservation of these species in the area. The NPWS considers that each subsequent DA must be individually assessed under Section 5A for its impact on these species. Additional information is now held regarding Glossy Black Cockatoo use of the subject lands. It is recommended that this new information be considered in Section 5A assessments for these species.

The NPWS also recommended that a Section 5A Assessment be prepared to permit consideration of the significance of impact of the developments on Loggerhead and Green Turtles.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May, 2000 is attached.

Insofar as the Glossy Black Cockatoo, Loggerhead and Green Turtles are concerned, having regard to the 8 point test report submitted by the applicant and the advice from the NPWS dated 24 May, 2000, it is concluded that on balance, the stage 2, 3 and 4 development applications are unlikely to have a significant effect on these species and therefore a SIS is not required.

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However, it is acknowledged that cumulative impacts are of concern and it may well be that the future development applications to implement the Dune Management Plan/Lot 500 Management Plan required by the Stage 1 consent and the Ministers consent for the Lenen North land may trigger the need for an SIS for these and other species.

Any SIS would need to address the magnitude and significance of impacts and possible mitigation measures.

* **Potential Impacts on Threatened Birds listed as International Treaties**

“Records are held of the Great Knot utilising Bogangar Beach within 500m of the subject land. The Great Knot is listed under the China - Australia and Japan - Australia Migratory Bird Agreements and as a Vulnerable species on Schedule 2 of the TSC Act. It is recommended that a s5A assessment is prepared for this species and any other threatened migratory bird species likely to occur on the subject lands or the adjacent beach.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May, 2000 is attached.

* **East-West Habitat Connections**

“It is noted that there is no provision in the DAs for habitat connections between the primary faunal habitats. These habitats are the Dunal areas and the environmental protection zones, adjacent to Cudgen Creek, including SEPP14 areas. A corridor, possibly 25m wide is proposed on the former Narui land (Richtech land) which did not form part of the Stage 1 consent. Provision could also be required west of this land to connect the environmental zones.

As a minimum, it is recommended that drainage swales running east-west across the subject lands be replanted with suitable indigenous vegetation sourced locally to assist the east-west dispersal of wildlife.”

Comment

Given the commitment given by the Stage 1 consent, DCP11 and Section 94 Plan No. 19 Master Plan it is considered unreasonable to require the east-west corridors as proposed by NPWS.

It is considered however that the east-west drainage swales, which are located in open space, are suitable to assist the dispersal of wildlife and any consent should be appropriately conditioned to require these lands to be suitably vegetated.

Reports from Director Development Services

Taking into consideration the location of the many north-south roads, in particular Coast Road and the Koala fence barrier which act as physical barriers to animals it is likely that only arboreal animals will take advantage of the corridors.

* **Fire Management**

“Section 3.1 of the Stage 1 Bushfire Management Plan states “in terms of bush fire risk, works associated with Stage 1 present little risk potential. Greater potential for bush fire risk will occur with staged development of the subject land which retains that individual plans will be presented with subsequent development applications for stages of the development, it appears that such plans have not been prepared for Stages 2, 3 and 4.

It is recommended that a fire management plan for the subject lands be considered by Council prior to its consideration of the DAs, so that the potential environmental impacts, including impacts on threatened species can be considered.

Depending on the outcomes of the fire management planning, s5A assessments may need to be reviewed. Frequent fire is gazetted as a Key Threatening Process under the TSC Act and its impact on fire sensitive species such as Glossy Black Cockatoo would need to be assessed.”

Comment

It is considered that a Bushfire Management Plan for this proposal is necessary and any consent shall be appropriately conditioned to require this plan prior to the issue of the Construction Certificate.

* **Potential Impacts on the NPWS Estate, Cudgen Creek, SEPP14 and associated Threatened Species Habitat**

“There is potential for the proposed development to impact on the Cudgen Nature Reserve, Cudgen Creek, SEPP14 area and associated threatened species habitat. The primary stress factors identified for the sub-catchment include urban pressure and algal outbreaks.

NPWS recommend a 50m buffer be established to the Nature Reserve and that no development be permitted within this buffer.”

Comment

The proposed buffer is considered to be appropriate and any consent will be appropriately conditioned to require a Section 88B Restriction to provide a 40 metre buffer extending north of the southern boundary of Management Lot 1 (proposed Lot 1 of Stage 2) where it adjoins the Cudgen Nature Reserve. This restriction will provide that no development will be permitted within this buffer. A 10m wide dedicated corridor for a cycleway/walkway is also proposed, thus providing a 50m buffer in total.

* **Potential Impacts on SEPP26**

“It appears that development (Stage 2) is proposed within 100m buffer zone of a SEPP26 Littoral Rainforest. It appears that the environmental impacts of development in this buffer have not been assessed. Although the provisions of SEPP do not apply to land zoned for

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residential purposes, development within the buffer is not supported by the NPWS until such time as an assessment is made of the likely impact including consideration of alternatives and mitigation, where appropriate.”

Comment

The SEPP26 littoral rainforest identified above is located on the western side of the new Coast Road. It is considered that the Coast Road and the Koala barrier fence and fencing proposed for the development should provide an adequate buffer between the development and the SEPP26 land.

2. Department of Urban Affairs and Planning

The application proposes the subdivision of the land within the 7(f) zone to create up to 45 allotments extending into this zone from the neighbouring residential zone. Public carparking is also proposed within this zone. The subdivision of the 7(f) zone requires the concurrence of the Director of DUAP.

DUAP has advised as follows:-

“Concurrence is granted to the subdivision of land within the 7(f) zone under LEP 2000, to create up to 26 allotments in Stage 2, 46 lots in Stage 3 and 53 allotments in Stage 4 extending from the neighbouring 2(e) zone, as described on plans previously submitted to the Department.

Concurrence is granted on the basis of the applicants’ claim that the purpose of the subdivision of the 7(f) zone is for environmental benefit and not for dwelling houses (which are a prohibited in the zone), and subject to:-

- 1. no residential or associated buildings being erected on land zoned 7(f);*
- 2. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;*
- 3. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and*
- 4. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.*

Comment:

The primary objectives of the 7(f) zone are as follows:-

- “* To identify lands susceptible to coastal erosion and protect them from inappropriate development;*

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* *To protect and enhance the scenic and environmental values of the land”.*

It is considered that the encroachment of the beachfront lots into the 7(f) zone is inconsistent with the zone objectives. Further, it should be noted that dwelling houses are prohibited in the 7(f) zone and it would therefore appear that a subdivision to create an allotment for the purposes of the erection of a dwelling house is also prohibited.

DUAP has granted concurrence for subdivision in the 7(f) zone and the applicant has also provided details on landscaping within the 7(f) zone. The landscaping plan provides a cross section of the development where the beachfront lots are within the 7(f) zone and backs onto the north/south cycleway/walkway. This plan generally provides that the beach front lots in the 7(f) zone will have landscaping consistent with the north/south cycleway. This should ensure that the landscape between the beachfront lots in the 7(f) zone and the cycleway/walkway is uniform. Fencing to the rear of the beachfront lots in the 7(f) zone is also to be consistent with the fencing to the Crown Reserve (Lot 500) to also allow consistency and a uniform appearance.

Each of the lots in the 7(f) zone all propose to have a gate erected on the rear fence to allow access to the beach. Details on these gates have not been provided but it is considered that these gates should be consistent with the fence along the rear boundary.

In addition, the applicant has also provided their own legal advice in relation to the subdivision in the 7(f) zone as follows:-

“We have viewed the proposed plan of subdivision for Stage 2 of the Kings Beach Development. Part of this site is zoned 7(f) (Environmental Protection (Coastal Lands) Zone). This 7(f) land comprises a corridor strip on the eastern side of the “foreshore” blocks.

We have examined the provisions of the Tweed Local Environmental Plan 1987. The objective of the 7(f) zone is “to identify lands susceptible to coastal erosion and protect them from inappropriate development”.

Within zone 7(f) “Beach maintenance” may be carried out without development consent. Uses such as ‘environmental facilities”, “recreation areas” and “works for drainage and landfill” require development consent but are otherwise permissible. “Environmental facility” is defined by the LEP to mean-

“A structure or work which provides for -

- (a) nature study or display facilities such as walking, boardwalk, observation decks, bird hides or the like; or*
- (b) environmental management and restoration facilities such as beach restoration, dune restoration or the like”.*

Clause 24 of the LEP applies to land in a number of zones including the 7(f) zone. In considering whether to grant development consent for land zoned 7(f) clause 24(2) requires that Council take into consideration the relevant principles and criteria referred to in Schedule 3 of the LEP. Relevantly item 7 of Schedule 3 requires Council to have

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regard to the scenic value of the land and the effect that the carrying out of development would have on the retention of existing vegetation on the land and the impact of any proposed building or structure on the scenic quality of the locality. Further item 12 of the Schedule requires Council to consider the proposed development in terms of the assessment of coastal erosion and design considerations given for the reduction of the potential hazard.

Clause 24(3) provides that the Council may consent to the subdivision of land for a purpose permissible in the zone (zone 7(f) other than for a dwelling house or agriculture, provided the Council is satisfied that the size and the shape of the allotment to be created is suitable for the proposed purpose.

Clause 24(3) makes it clear that dwelling houses could not extend into the 7(f) zone. This does not prevent however the "foreshore" allotments extending down into the 7(f) zone. The use of those parts of the allotments within the 7(f) zone must however comply with clause 24(3) and the use of the 7(f) part of the allotment must be for a purpose permissible in the zone. For this reason the Stage 2 application must clearly identify that the 7(f) zoned land will be managed by the future individual foreshore lot owners who will be involved in the ongoing environmental management and restoration of this area including bush restoration featuring the removal of noxious weeds and with erosion prevention works such as the planting of ground covers. Environmental facilities would also be provided by way of display and access facilities such as walking, observation decks, bird hides etc.

In addition to these private environmental works, public pedestrian access to the beach will be provided by several linkages. These linkages will enable the public to walk across the 7(f) land so that the environmental quality of this area can be observed and studied.

*We note that the decision of the former Chief Judge of the Land and Environment Court, Justice Cripps in *Argyropoulos v Canterbury Municipal Council* (1988) 66 LGRA 202 confirms the correctness of the above advice. That is to say, provided the 7(f) land is designated for a permissible use and the residential development will not extend across the zoning boundary then the single allotments may straddle the two zones. The subdivision accordingly can be a Torrerns subdivision in which each of the foreshore blocks extend into and include the 7(f) land."*

It is concluded that the intent of the Stage 1 consent was to separate the 7(f) zone as non-subdivided land subject to community title and in effect as private open space from the development to preserve the coastal environment and restrict development (structures) in the 7(f) zone other than landscaping, fencing and works associated with the north/south cycleway/walkway. This would generally be consistent with the zone objectives.

This has been supported by the Director Development Services and the applicant has been advised of his position. The applicant disagrees with this advice and argues that the intent of the Stage 1 consent was not to separate the 7(f) zone from the development, in particular subdivision.

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3. Department of Land and Water Conservation (DLWC)

“Dune Management Plan

In the Introduction of the Statement of Environmental Effects it is identified that Lot 1 DP 811425 did not form part of the Land and Environment Court Consent Orders 10686 of 1997 and 30386 of 1998.

Presumably, therefore, the Dune Management Plan recently approved by Council does not cover the section of Lot 500 DP 727420 east of Lot 1 DP 811425.

A Dune Management Plan should be prepared to the satisfaction of DLWC for that part of Lot 500 east of Lot 1 DP 811425.

I refer to the difficulties that have arisen with the Dune Management Plan for that part of Lot 500 east of Lot 3 DP 865040 (previously Lot 2 DP 811425). It is therefore recommended that the proponents and/or their consultants liaise with DLWC and Council staff to obtain detailed written criteria for the preparation of a Dune Management Plan acceptable to DLWC and Council.

DLWC seeks a consistent approach to dune management for all of Lot 500 between Kingscliff and Cabarita.

Lot 500

No stormwater/infiltration ponds or carparks are to located on Crown land (Lot 500 DP 727420).

Stormwater Management/Erosion and Sediment Control

Greater clarity and detail should be sought from the proponents on these issues”.

Comments

The amended Dune Management Plan and Lot 500 Management Plan submitted by Aspect North dated 27 April, 2000 already includes that part of Lot 500 east of Lot 1 DP 811425 (Richtech Land).

No stormwater/infiltration ponds or car parks are located within Lot 500. These are all provided within the subject land only.

Stormwater management/erosion and sediment control have been addressed to Council's satisfaction and will be included as a condition of any consent.

EVALUATION

A complete assessment of the application against the matters for consideration under Section 79C(1) of the Environmental Planning & Assessment Act, 1979 is provided below.

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(a) (i) **Planning Instruments**

Tweed Local Environmental Plan 2000 (TLEP 2000)

The land, the subject of the proposed subdivision is zoned Part 2(e) Residential (Tourist) and Part 7(f) Environmental Protection (Coastal lands). The proposed development is permissible with the consent of Council.

There are a number of clauses in the TLEP 2000 which require consideration. These are discussed below.

Clause 17 - Social Impact Assessment

The objective of this clause is to ensure proper consideration of development that may have a significant, social or economic impact. In this instance, it is considered that this proposal will contribute to a significant social or economic impact.

This clause also provides that when Council considers that a development is likely to have a significant social or economic impact in the locality or Shire, as the case may be, the Council may only grant consent to the development if it has considered a social impact statement in respect of the proposed development.

A social impact statement has not been provided with this application.

The application indicates that the impacts of the proposed development have already been addressed as part of the development application that culminated in the Consent Order S96/135.

It is considered that a Social Impact Assessment is not necessary as this application is generally consistent with the Stage 1 consent and some positive economic and social impacts will result.

Clause 20 - Subdivision in Zone No. 1(a), 1(b), 7(d) and 7(l)

The land within the subject land zoned 7(l) is not proposed to be subdivided as part of this application. The subject site is not affected by any 7(l) zone.

Clause 22 - Development near Designated Roads

The Coast Road is a designated road and the subject site has frontage to the Coast Road.

Clause 22(4) provides as follows:

“(2) The consent authority may grant consent to development on land to which this clause applies only if it is satisfied that:

- (a) the development (because of its nature, appearance, cumulative effect or illumination, or the intensity or the volume or type of traffic likely to be generated, or for another similar reason) is unlikely to constitute a traffic hazard or materially reduce the capacity or efficiency of the designated road, and*

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- (b) *the location, standard and design of access points, and on-site traffic movement and parking arrangements, would ensure that through traffic movement on the designated road is not impeded, and*
- (c) *the development, or proposed access to it, will not prejudice any future improvements to, or realignment of, the designated road, and*
- (d) *where the land is in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development is of a type that necessitates a location in proximity to the designated road for reasons other than only commercial advantage, and*
- (e) *the development is of a type that is not sensitive to traffic noise or, if it is, it is located or adequate measures are included to ameliorate any potential noise impact, and*
- (f) *the development would not detract from the scenic values of the locality, particularly from the point of view of road users, and*
- (g) *where practicable, access to the land is provided by a road other than the designated road, and*
- (h) *in respect of any application for commercial or retail development near the Pacific Highway in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development:*
 - (i) *would not compromise the Highway's function as the North Coast's primary inter- and intra-regional road traffic route, and*
 - (ii) *would not contribute to the need to expend public money on the Highway to overcome the effects of ribbon development, and*
 - (iii) *would not compromise highway safety and efficiency, and*
 - (iv) *would not cause or contribute to the shifting of the retail/commercial foci of any town from the town centre to a highway-orientated site."*

The application proposes only one access directly to the new Coast Road. The access point from the Coast Road was constructed as part of Stage 1 of the development.

Accordingly, it is considered that the proposal is acceptable in terms of traffic planning for the efficiency of the Coast Road. In addition no lots are proposed to be created adjacent to Coast Road. Further assessment will be required when further development applications for subdivision are submitted.

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Clause 27 - Development in Zone 7(f) Environmental Protection (Coastal Lands)

As discussed in the consultation section of this report the application proposes the subdivision of the 7(f) zoned land to create 45 lots extending in this zone from the neighbouring residential zone.

DUAP have granted concurrence and taking into account the applicant's submission and details on fencing and landscaping in the 7(f) zone and given that no buildings are proposed in this zone, it is considered that subdivision in the 7(f) zone is satisfactory under the circumstances.

Clause 29 - Development adjacent to Zone 8(a) National Parks and Nature Reserves

The development site is not adjacent to any National Parks and Wildlife Reserves.

Clause 35 - Acid Sulfate Soils

The applicant has submitted an acid sulfate soil management plan with the application to the satisfaction of Council's Environment and Community Services.

North Coast Regional Environmental Plan 1988 (NCREP 1988)

Clause 15 - Wetlands and Fisheries Habitat

This clause provides that Council shall not consent to an application to carry out development within adjoining or upstream of a coastal or inland wetland or fisheries habitat area or within a drainage catchment area of a wetland or fishery area unless it has considered the following matters:-

- a. the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat;
- b. the need to conserve the existing amateur and commercial fisheries;
- c. any loss of habitat which will or is likely to be caused by the carrying out of the development;
- d. whether an adequate foreshore reserve is available and whether this is adequate public access to that reserve;
- e. whether development would result in pollution of the wetland or estuary and any measures to eliminate pollution;
- f. the proximity of aquatic reserves dedicated under the Fisheries Management Act, 1994 and the effect the development will have on the reserves;
- g. whether the quality is in an area of protected land as defined in Section 21AB of the Soil Conservation Act, 1938 and any measures to prevent soil erosion;
- h. the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved;

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- i. the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority in relation to the river, stream, wetland area or catchment.

In regard to the above matters the following comments are provided:-

- (a)-(c) The application is supported by a water quality management and monitoring program, a erosion and sedimentation control plan and a acid sulfate soil management plan. These plans are satisfactory and should ensure that the quality of the water and habitat in and near Cudgen Creek is not significantly impacted upon.
- (d) There will be no affect on access to the foreshore of Cudgen Creek.
- (e) See comments in relation to (a-c) above.
- (f) There are no known aquatic reserves located in proximity to the site.
- (g) Cudgen Creek is not identified in the area of protected land.
- (h) The proposal will not result in the removal of vegetation along the water course.
- (i) There have been no recent environmental audits or water quality studies by the Department of Water Resources or Environment Protection Authority containing recommendations to the river, streams, wetland area or the catchment.

WBM Oceanics Australia prepared a Estuary Management Plan for Cudgen Creek on behalf of Tweed Shire Council, dated August 1997.

The Management Plan for Cudgen Creek has been prepared, taking into account habitat enhancement/conservation options, urban development, water quality, bank stability and opportunities for increased recreational usage of the Creek. The Management Plan is supported by technical analysis of specific issues, assessment of environmental benefits/debits and the need for further studies required to implement works. Additionally, priorities and costings to undertake the management actions described in the Management Plan are provided.

It is considered that the proposal is generally consistent with the principles of this plan.

Clause 29A(1) - Natural Areas and Water Catchment

This clause provides that Council must not grant consent for the clearing of natural vegetation in environmental protection, scenic protection or escarpments preservation zones unless it is satisfied that:-

- a. the wildlife habitat will not be significantly disturbed by the proposed development,
- b. the scenery will not be adversely affected by the proposed development, and

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- c. an erosion and sedimentation control plan will be implemented which will successfully contain on the site any erosion and sediment caused by the development.

As discussed, the beach front lots are partly located within the 7(f) zone, this is also the case for the public car parking area. This is adjacent to the foreshore cycleways/walkway which was approved by the Stage 1 consent and also passes through the 7(f) zone. In regard to the above matters, the following comments are provided:-

- a. It is considered that the proposal is unlikely to have a significant effect on threatened species and habitat in accordance with the submitted Section 5A assessment.
- b. It is unlikely that the scenery of the locality will be adversely affected by the proposal. The land in question will be subject to extensive landscaping and development restrictions.
- c. An erosion and sediment control plan accompanies the application and is satisfactory.

Clause 32B - Coastal Lands

The application is affected by the NSW Coast Government Policy. See section titled NSW Coastal Policy 1997 of this report.

In general, the proposal will not impede public access to the foreshore. Adequate public access to the beach will be available following completion of the development.

Clause 33 - Coastal Hazard Areas

It is considered that the proposal is generally consistent with this clause. The Crown land (Lot 500) to the east of the subject site will be subject to a Management Plan, to be approved by Council and the Department of Land and Water Conservation. This land will be extensively rehabilitated with native species.

The application also identifies a number of access points across the foredune areas which provide suitable public access from the site to the beach. However, these trails are not proposed as part of this application and they will need separate approval from Council and the Department of Land and Water Conservation.

Clause 43 - Residential Development

This clause provides that Council shall not grant development consent for residential purposes unless,

- a. it is satisfied that the density of the dwellings have been maximised without adversely affecting environmental features of the land;
- b. it is satisfied that the proposed widths are not excessive for the function of the road;

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- c. it is satisfied that, where development involves the long term residential use of caravan parks, the normal criteria for the location of dwellings, such as access to services and visible suitability of the land have been met;
- d. it is satisfied that the road network has been designed so as to encourage the use of the public transport and minimise the use of private motor vehicles; and
- e. it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.

The significant environmental constraints on the land were identified in the Stage 1 consent and subsequently significant amounts of land identified for public open space and environmental protection will be dedicated for these purposes. However, the density of dwellings have not been maximised for this proposal and is not in accordance with the estimated population yields identified in DCP11 - Kings Beach. For more information on the population yields see the section on DCP11 - Kings Beach.

The proposed road hierarchy and public transport issues will be discussed later in this report.

No caravan parks are proposed and the sedimentation and erosion control plans accompanying the application is considered to be satisfactory.

Clause 66 - Adequacy of Community and Welfare Services

This issue was considered in the formulation of the Section 94 contributions plan applicable to the Kings Beach development. The staged provision of land/or contributions for provision and upgrading of community facilities is proposed, including community centre/multi-use hall, youth facilities, library facilities and health care facilities. Other local and subregional facilities are available at nearby Tweed Heads, Murwillumbah and Kingscliff including schools and hospitals.

Clause 81 - Development Adjacent to the Ocean or a Waterway

This clause provides that Council shall not consent to development on land within 100m of the ocean or any substantial waterway unless it is satisfied that:-

- a. there is sufficient foreshore open space which is accessible and open to the public within the vicinity of the proposed development;
- b. buildings to be erected as part of the development will not detract from the amenity of the waterway; and
- c. the development is consistent with the principles of any foreshore management plan applying to the area.

A 10m wide cycleway/walkway is proposed along the eastern boundary of the subject land running north/south. Adjacent to this path are a number of proposed public parks and parking areas. To the east of the pathway is the Crown Reserve which will have a

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number of access ways through it for the public to gain access to the beach. This reserve will be fenced for conservation purposes.

No buildings are proposed as part of this application. However, it is unlikely that any buildings will significantly detract from the amenity of the waterway taking into consideration the extent of the Crown Reserve between the development and the beach.

As previously discussed, a Dune Management Plan is to be prepared for the Crown Reserve.

State Environmental Planning Policies (SEPPS)

SEPP11 - Traffic Generating Developments

In accordance with the provisions of this SEPP, the application was considered by the Local Traffic Committee. A summary of their comments is provided below.

“In accordance with mandatory provisions of SEPP11 Local Traffic Committee approval is sought regarding the above development application of the creation of an 82 lot residential subdivision.

The plans were viewed by the Committee.

The Committee noted that Lots 1 to 52 do not appear to have access to the external road network, which needs to be clarified. If it is planned to use the downgraded section of the existing Coast Road, a detailed plan showing intended intersection upgrading should be submitted.

No other significant issues were identified”.

Comment

Lots 1 to 52 will have temporary access to the existing Coast Road provided by a “T” intersection. When future applications for subdivision are submitted this connection will be formalised. Any consent will be conditioned appropriately.

SEPP44 - Koala Habitat Protection

The flora and fauna assessment submitted with the application provided a SEPP44 assessment and indicates that the subject site is of an unknown value as habitat for koalas. The subject site does not support any primary or secondary koala feed trees and is considered highly unlikely to provide koala habitat and therefore a plan of management is not required.

ii. The Provisions of any Draft Environmental Planning Instrument

There are no relevant draft instruments.

iii. Any Development Control Plans (DCPs)

DCP11 - Kings Beach

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This is the principle DCP to guide future development and management of the Kings Beach development site. The proposal involves land at the southern end of the site known as Management Lots 5, 7, 14 and part 13. The DCP provides specific Development Control Plan provisions which articulate the design and development principles underpinning the development plan which was a component of the negotiated settlement between Lenen Pty Ltd and Tweed Shire Council. Those that specifically relate to this application are discussed as follows.

Clause 3.3 - Estimated Population Yields

The estimated population yields for management lots 5 and 7 provided by the DCP are 2230 persons. The application indicates the population yield for lots 5 and 7 at 1841 persons, which is well below the estimate of 2230. This estimate of 1841 persons is based on the beachfront and inland lots and the number of townhouses/terraced apartments. Should the Richtech Land be included in the estimated population yields it is considered that the population yields for management lots 5 and 7 provided in the DCP are likely to be achieved. The Richtech Land (Lot 1 DP 811425) is not included in the population yields and the applicant submits that this land will provide approximately 777 persons. Adding this total of 777 to Lots 5 to 7 of 1841 the total yield is 2618.

In addition, the application provides that the occupancy rates for the beach front lots and inland lots is 3 persons per dwelling. However, it should be 2.6 person per dwelling in accordance with Section 94 Plan No. 19 - Kings Beach/Kings Forest.

The application also provides occupancy rates for medium density (townhouse/terrace apartments) at 2.3 per dwelling whereas the Section 94 Plan provides 1.7. The application also provides an occupancy rate of 1.8 persons per room for tourist development (resort) whereas the Section 94 Plan provides 1 person per bed.

Obviously, the occupancy rates provided by the application are not consistent with the Section 94 Plan No. 19. Therefore, the estimated population yields provided by the applicant are not consistent with the DCP.

As this proposal is part of a staged development over the entire Kings Beach site, it is possible that the total population yields may be achievable when the remainder of the site is development and subsequent applications submitted.

Should the population yields not be achievable then the DCP and the Section 94 Plan will need to be amended to reflect the expected population yields in the event that Council gives approval to this application. This may require amendment to the Stage 1 consent also.

The applicant has reviewed the population yields for the Kings Beach site, including the Richtech land (formerly the Narui Site) and has provided the following:

“We refer to our recent minutes sent to you on April 10, 2000 and specifically direct your attention to Item 4 (note 5) in the Minutes of the April 3, 2000 planning and design meeting.

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At the meeting we agreed to review the population figures in light of the most recent Stage 2-4 applications, including but not limited to the likelihood of Stages 5 and 6 being lodged in the near future and the fact that certain development sites, namely the tourist and resort areas, were considered likely to have different yields than those which had been initially proposed at the time of the Consent Order in 1998.

In addition, the inclusion of the Richtech site (previously known as the Narui Land) in the Stage 3 application needs to be brought into the “development planning loop” in order to ascertain the most likely final development scenario as we are best able to determine in mid-April, 2000.

As we all agreed, the need for flexibility was accepted as a desirable planning tool and there appeared to be a general consensus that some variation, in the order of 10%, was likely to be reasonable interpretation of the Consent Order’s direction that development be “generally in accordance” with the submitted Development Plans.

As you know, the Consent Order incorporated estimates for the subject site (excluding the Richtech land) of 5,600 within the 7 Management Lots. Independently, the Richtech land had been estimated to generate a population yield of around 777 persons, Based upon extrapolation, this would give a yield target of around 6,380 (rounded) give or take 10%, for the total development area (ie. both sites).

With a 10% variation as an allowable “flexibility principle”, this would give a target range varying between 5,742 and 7,018, given the centroid figure of 6,380.

Having reviewed our current population projections in light of the development scenarios, we believe that the development can readily achieve a population of approximately 5,820 which is only between 8-9% below the aggregated expectations for the original Consent Order land (ie 5,600) plus the Lenen land (ie. 777). In other words, as currently we are best able to ascertain, when completed, the development should have at least 5,820 persons as opposed to the projected figure for both sites of 6,380.

We therefore suggest that a reasonable interpretation of the Consent Order estimates would be to allow the range to fluctuate between 5,040 and 6,160, which is a 10% variation either side of the 780 yield figure.

Taking the lowest and highest yields from both sites (ie. -10% and +10%) gives the range of figures noted above, namely 5,742 and 7,020.

We also draw your attention to the fact that the Peterson’s health spa (with plans for around 90 units or 180 persons) proposal at the southern end of the site, whilst included in the Consent Order figures, has not been included in the

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estimates set out below in the Table. If this development is included, then the yield, per the Table set out at the end of this letter, rises to 6,000!

We further note that development Site B (Beachside Village) can accommodate apartments in place of the holiday cottages indicated in the Concept Master Plan. We are currently investigating this concept with the client. This could increase the yield on this site from 80 units (160 persons) to perhaps 150 units (300 persons).

Darryl and Nick, we believe that other development sites indicated on the Concept Master Plan could have their yield totals increased in order to achieve the target total as indicated in the attached Table, inclusion of Peterson's land does achieve this!

As indicated at the April 3, 2000 meeting, the final population totals will, to a significant extent, be determined by the market. Accordingly, the exact yields for each resort and medium density development complex site will depend on unit sizes and configurations, site planning concepts, market demands and other issues which cannot be accurately predicated at this time.

We request therefore that Council favourably consider the suggested approach in this matter by adopting the "flexibility principle" as the general guideline. This will remove the somewhat academic barriers to both our deliberations and negotiations.

The attached Table is transmitted for information purposes and should help to serve as a "working document" subject, of course, to change as we firm up on the specific projects as they come to fruition. We believe that if we jointly agree to this approach it will be seen as the major drawcards of the Casuarina Beach development.

Your earliest reaction to this proposal would be appreciated as we are well into the detailed planning for Stages 5 and 6 as well as discussions with other key resort developers and operators.

Finally, we would make the point that this recommended approach not only accommodates the Estimates for Population Yields per Consent Order No. 1, but also brings the Richtech land, which was not part of the Consent, into line with the philosophy and general development planning concepts enunciated in the initial Consent Order Development Plan.

In this regard, this approach removes any "hurdles" or confusions which might be seen to have arisen by the changes which further planning investigations have, inevitably, demanded."

Potential Population Yield for Casuarina Beach

(April 14, 2000)

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<i>Product</i>	<i>Total Yield</i>	<i>Population Multiplier</i>	<i>Population Total</i>
<i>Beachfront Lots</i>	<i>130</i>	<i>X3</i>	<i>390</i>
<i>Beach View Lots</i>	<i>17</i>	<i>X3</i>	<i>51</i>
<i>Dry Lots</i>	<i>462</i>	<i>X3</i>	<i>1,386</i>
<i>Units on Medium Density and Resort Sites</i>	<i>1,997</i>	<i>X2</i>	<i>3,994</i>
<i>TOTAL</i>	<i>2,606</i>		<i>5,821</i>

Given that the population yields in the Stage 1 consent are somewhat arbitrary, it is considered that the reduced yields are acceptable, subject to formal amendment of the DCP and Section 94 Plan to reflect the changes and to include the former Narui Coastal lot.

Clause 3.5 - Urban Design Principles

1. The east/west cycleway/footpath linkages are not as per the approved development plan but the linkage/permeability shown on the Stage 2 master plan is considered to be satisfactory.
2. The fencing of the boundaries of the private open space/beach maintenance areas is generally consistent with the fencing protection of the dual areas, ie. 1.2m high fence with wooden posts with high quality wire mesh. A gate will also be provided to each allotment to allow direct access to the cycleway/walkway and beach.
6. This provides that approximately 500 public car parking spaces are to be provided within the Kings Beach site. The concept master plan for the whole site appears to provide for about 550 spaces. Accordingly, the proposal is supported in this regard.
8. The application identifies the number of public accesses from the beach to the site. This relates to their position on the ocean foreshore road (esplanade), nodes of public open space, retail and commercial activities and public car parking provisions. Each of these public accesses are generally separated by approximately 400 metres and are considered to be consistent with the DCP.

However, these public accesses do not form part of this application. A separate application(s) will need to be submitted for their approval/construction.

Reports from Director Development Services

13. The DCP provides that local parks shall be provided as part of the development of the management lots and that a minimum of 2000m² of useable recreation area and be not more than 250m from any dwelling and have public road frontage for a minimum of 50% of the perimeter frontage of the local park.

The proposal does not propose any local parks, other than lot 82. It is considered that further subdivision of the residue lots will comply with this provision. In any regard, it is considered that the connectivity of the road and pedestrian/cycle network allows for suitable access from these lots to open space within the development.

14. This provides that all nodes of retail and commercial activity with integral public open space and community facility provisions shall generally be within 400m of any dwelling within the development.

In this instance some lots do not comply. However, as mentioned above (13), it is considered that the overall development is generally consistent with this clause. Again, it is considered that the development allows connectivity between the roads and the cycleway/walkway network.

15. This generally provides that acoustic fencing and landscaping is to be provided to the east of the new Coast Road. No development for subdivision to create residential lots are proposed. Further development applications for subdivision will need to address this.

18. There will no direct vehicular access from the relocated Coast Road other than via approved intersections.

The proposal provides one access and is consistent with this provision, as discussed earlier.

23 & 24

A water quality management and monitoring program has been submitted with the application and is considered to be satisfactory.

26. It will be a condition of any consent that all existing Bitou bush plants be removed and the disturbed areas shall be appropriately treated to prevent dust nuisance and soil erosion.

31. An acid sulfate soil management plan has be submitted and is generally satisfactory and any consent will be conditioned appropriately.

NSW Coastal Policy 1997

The DCP also takes into consideration the NSW Coastal Policy 1997. It is considered that the proposal is generally consistent with the relevant objectives of this Plan. The policy generally provides that development needs to take into consideration a number of objectives which attempt to protect the natural environment. The specific objectives of the policy which relate to this development are summarised as follows:-

Reports from Director Development Services

- * Identify conservation values of land and aquatic environments;
- * Improve and maintain water quality;
- * Manage coastline and estuarine environments for public interest and ensure their vitality;
- * Impacts of natural processes of a high priority;
- * Design development to compliment surrounding development;
- * Increase public access to foreshores.

All the above objectives have generally been discussed throughout this report and it is considered that the development is unlikely to create any significant adverse environmental impacts on the coastal environment.

DCP16 - Subdivision Manual

The proposal is generally consistent with the various standards of this plan.

DCP39 - Energy Smart Homes Policy

This plan was adopted on 7 April 2000 and came into effect on 10 April 2000 and subsequently needs to be considered. It is accepted, however, that this application was submitted well before this plan was adopted and this would account for any inconsistencies with this plan.

This DCP has been developed in response to the growing community desire to achieve greater efficiency from domestic use. It stems from a general concern about greenhouse gasses generated by energy use, their affect on the environment and in particular, contribution to global warming. The DCP shows how energy efficiency can be achieved in all new residential subdivisions and buildings, including alterations and additions to existing buildings. It includes design alternatives - such as passive solar design and solar water heating - that will dramatically reduce the demand for non renewable energy, thus reducing both costs and air pollution and reducing the level of comfort in the average Australian home.

Section 4.0 of this Plan specifically relates to subdivisions and provides preferred outcomes for the following:-

- * Street orientation;
- * Lot orientation, size and shape;
- * Access;
- * Public transport;
- * Setbacks; and
- * Street lighting

Reports from Director Development Services

A solar proficient subdivision will ensure that the overall development is significantly more energy efficient than a conventional subdivision.

1. *Street orientation*

- * Align streets east/west and north/south wherever possible
- * North/south streets should be within 20 degrees west and 30 degrees east of true north
- * East/west streets should be within 30 degrees south and 20 degrees north true east

In this regard the majority of streets proposed are either aligned north/south or east/west and are consistent with this outcome.

2. *Lot orientation, size and shape*

- * Lots should be orientated so that one axis is within 30 degrees east and 20 degrees west of the true solar north
- * North facing slopes improve opportunities for solar access, small lots are therefore best suited to north facing slopes with gradients of less than 15%
- * South facing slopes impose a penalty on solar access, therefore, large lots/lowest densities are best suited to north to south facing slopes or other areas where solar access is poor
- * The north side of east/west aligned streets is suitable for narrow lots
- * Lots aligned on an east/west axis generally need to be wider than lots aligned on a north/south axis to prevent undue shadow effects on lots to the south
- * Where streets are within the acceptable orientation range, use rectangular shaped lots
- * Sloping sites are not suitable as flat sites for smaller lots

It is considered that all lots have at least one axis within 30 degree east and 20 degrees west of the true solar north.

The land is relatively flat and following earthworks it is considered that the topography of the land won't significantly change. Accordingly, the issue of north and south facing slopes is not a significant issue in this instance.

All lots on the northern side of the streets are relatively narrow and should comply in this regard.

The lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis. Accordingly, this is not consistent with the DCP and could have undue shadow effects on the beachfront lots.

Reports from Director Development Services

3. *Access*

- * Footpaths are designed to access public transport routes
- * Subdivision design includes, clearly marked bicycle network, marked kerbside bike lanes, dedicated cycleways, links to regional cycleways
- * Subdivision design should maximise the ability to travel directly between any given destination and origin

4. *Public Transport*

- * Subdivision design should allow for circuitous public transport routes that maximise the number of lots within a short walking distance to potential transport routes
- * Suitable areas for bus stops and lay back areas should be identified
- * Long cul-de-sacs should be avoided as these reduce accessibility to public transport

It is considered that the proposal is generally consistent with the access and public transport principles identified above.

5. *Setbacks*

- * Variable setbacks and zero lot lines are the means of maximising solar opportunities, especially with small or narrow lots. Setbacks are manipulated to maximise solar access for all lots.
- * Preferred setback lines can be shown on subdivision plans to help builders, designers and home buyers make the best use of solar energy.

The Architectural Design Regulations (to be discussed later in this report) provide some variations to the front setbacks.

Section 94 Contribution Plans

Section 94 Contribution Plan No. 19 - Kings Beach/Kings Forest presents a strategy for the provision of structured and unstructured open space and community facilities. Those sections of the plan that specifically relate to this development are discussed as follows.

5.0 Expected Population

This plan indicates that the expected population of Kings Beach is 5600 persons, with 3000 permanent residents and 2600 tourists.

As discussed in Section (iii) titled Development Control Plans of this report, it is unlikely that the population yields will be achieved for this proposal. The DCP and Section 94 Plan will need to be amended to reflect this and to include the Richtech land.

Reports from Director Development Services

The occupancy rates and the population yield for Stage 3 are not consistent with those in the Section 94 Plan.

7.0 Timing of Contributions

Credit

Approximately 5.5ha of active open space is to be dedicated as part of the Stage 1 consent being management lots 9, 10 and 11.

However, as discussed in 5.0 above the population yields identified in the table for management lots 1 and 2 have not been achieved by this application. Accordingly, this could have implications on the provision of the active open space credits within each of the management lots. Subsequently, the Section 94 Plan and the DCP for this site will need to be amended to reflect the current figures.

14.0 Open Space

Structured Open Space

The developer is to dedicate a total of 5.5ha of structured open space at no cost to Council in conjunction with the Stage 1 consent. These being management lots 9, 10 and 11. These lots are not within the land subject to this application.

The amount of structured open space to be dedicated (5.5ha) has been calculated on the population yields provided by the DCP. Any variations to those yields, which is the case for this proposal, may have implications on the amount of structured open space to be provided. Accordingly, the DCP and Section 94 Plan will need amending to reflect this.

At the moment the population yields provided by the applicant are below those provided by the DCP. Accordingly, this proposal does not require any additional structured open space above the 5.5ha.

A monetary contribution would be required for the embellishment of the structured open space.

Passive Open Space

The developer is to dedicate and embellish Lots 12, 13 and 14 as public open space in conjunction with the Stage 1 consent. These lots together with the proposed parks for this application are to be suitably embellished by the developer.

Public open space needs to be provided in accordance with the Section 94 Plan for the site. In respect of the casual open space, the Section 94 Plan requires that a minimum area be 2000m² and not be more than 250m from any residential dwelling and each parks perimeter should have at least 50% frontage to a public road. As discussed earlier it is considered that the development is generally consistent with this.

Again, as discussed above for the structured open space the estimated population yields for Lots 5 and 7 are unlikely to be achieved and subsequently this may have implications

Reports from Director Development Services

on the provisions of casual open space. However, the yields provided in the application are below those provided by the DCP and the proposal is unlikely to require any additional casual open space above that already provided or required by the Section 94 Plan. However, the addition of the Richtech land may have implications on this or the DCP and Section 94 Plan may need to be amended to reflect this.

15.0 Cycleways

The proposal is considered to be generally consistent with the Section 94 Plan.

Section 94 contributions will be applicable.

16.0 Community Facilities

Contributions will apply for the provisions of the following facilities:-

- * community centre/multi-use hall
- * youth facilities
- * library facilities
- * healthcare facilities

The works program in the Section 94 Plan indicates the appropriate threshold at which to provide the facilities. Special factors may arise requiring provision of a facility before the stage threshold is reached.

The community facilities are likely to be located within the town centres/commercial/retail areas for convenience. In addition, the Concept Master Plan indicates that the Surf Life Saving Club site will be located in Stage 3, proposed residue Lot 91. To secure the site it is proposed that any consent will be appropriately conditioned to provide that any future development application for further subdivision with Stage 3 will need to provide a lot for the purpose of a Surf Life Saving Club. This lot will be dedicated to, at no cost, and credit given for Section 94 contributions.

(b) The Likely Impacts of the Development

Environmental Impacts

The proposal is unlikely to create any significant adverse environmental impacts on the locality. To reduce any potential impacts the applicant has submitted a sedimentation and erosion control management plan to control and minimise the pollution caused by soil erosion on downstream waterways during the construction project. This plan is generally satisfactory.

The applicant has also submitted a water quality management and monitoring program. This plan is also considered to be satisfactory.

These plans and the acid sulfate soil management plan should ensure that the quality of the water at Cudgen Creek is not adversely impacted upon.

Reports from Director Development Services

The development of the Kings Beach site will inevitably have some impact on the environment. What Council needs to consider is what is an acceptable impact given the history of the site. To reduce these impacts a number of management plans and reports have been prepared. These reports and the management plans have helped to achieve a subdivision design and to minimise the impact of the proposal on the environment from the construction stage to the completion. These reports and management plans will be incorporated into any consent, where appropriate.

A flora and fauna assessment accompanied the application.

The conclusions from the flora and fauna assessment prepared by James Warren and Associates is as follows:-

“It is proposed that the site be developed for urban residential purposes as a component of the wider Kings Beach Estate.

Previous flora and fauna surveys and the NPWS Database was reviewed to determine the occurrence of significant species in the locality. This working list was used as a basis for determining target species and designing more detailed surveys.

Vegetation surveys were undertaken in September 1999. Details searches of all parts of the site were undertaken. Specific searches for significant plants were also undertaken. It was considered that the Subject site would have supported Littoral rainforest before clearance for sand mining. Sand mining removed all vegetation and much of the soil seed bank and destroyed the original dune structure. Following mining the area (including the Subject site) was replanted with Horsetail sheoak, Bitou bush and Coastal tea tree. The Subject site now supports six (6) vegetation communities:-

- 1. Mid-high Open Mixed Forest (Coastal tea tree/Coast Banksia/Horsetail she-oak);*
- 2. Mid High Woodland (Coastal tea tree/Coast Banksia/Horsetail she-oak);*
- 3. Mid High Woodland (Horsetail she-oak);*
- 4. Mid-high Open Forest (Coast Banksia);*
- 5. Mid-high Closed Shrubland (Bitou bush/Coastal wattle); and*
- 6. Mixed grassland and Sand plain.*

All communities dominated by native species are reasonably widespread and well represented in conservation reserves in northern NSW. Large parts of the site are dominated by exotic and non-endemic species. These areas are of little conservation concern.

Bitou bush (which occurs at the site in dense groves) has been listed as a Key Threatening Process under Section 3 of the Threatened Species Conservation

Reports from Director Development Services

Act 1995). The listing is based on the threat that the species poses to native plant communities, a number of threatened plants and native fauna habitats.

The site may have supported Threatened species as Scented acronychia and Stinking laurel before clearance. Searches were undertaken for these species without success. No other Threatened, ROTAP or Regionally Significant plant species were recorded during surveys. If the site was allowed to regenerate to its original climax community, it may provide habitat for these species.

Fauna surveys were undertaken in March, April, May and June 1998 (when the property remained in the ownership of Narui Gold Coast Pty Ltd) and in September 1999. Surveys targeted a range of species, although the Common blossom bat was considered the primary species of concern. Weather conditions and seasons under which sampling work was completed were generally suitable for recording the target species.

Surveys recorded two (2) species of Amphibian, three (3) species of Reptile, fifty two (52) species of bird and ten (10) species of mammal (a further two species were identified to the genus level only).

The site was considered to be of low value for Amphibians. Wallum froglets and Wallum treefrogs have been recorded from the wider locality but are considered very highly unlikely occurrences on the Subject site.

The site provides habitat for a low diversity of Reptiles, although moderate abundances of all species were observed. The site is considered unlikely to provide critical habitat for these ubiquitous adaptable species. The site is considered very highly unlikely to provide habitat for threatened species known from the wider locality such as Stephen's banded snake and the White crowned snake.

Ornithologist Stephen Debus found the site to support a low density of bird species.

No Threatened species were located during surveys and it is considered unlikely that the site would provide critical habitat for such species. It was considered unlikely that the proposed development would have a significant impact on shorebirds that may utilise adjacent sections of Bogangar Beach.

Exotic species such as the Black rat and House mouse were the only small terrestrial mammals recorded during surveys. The site is considered unlikely to provide habitat for native species, including the significant Common planigale.

The site was considered likely to support a range of Microchiropteran bats, potentially including a number of Threatened species. A number of these species may forage at the site, although the lack of diversity and structural complexity is likely to limit its value in this regard. The site is considered unlikely to provide roost habitat for any of these species.

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The Threatened Common blossom bat has been recorded widely within the Study area and was recorded on the Subject site. Detailed vegetation survey was undertaken to determine areas of high, medium and low concentrations of the forage species Coast banksia. This data was then provided to Mr Greg Richards (bat specialist) who concluded that the proposed development would not place a viable local population of the Common blossom bat at risk of extinction.

The Black flying fox may also utilise site habitats. Given the small percentage of the likely total forage range that will be affected by the proposed development, impacts are considered unlikely to be significant.

A number of Threatened species were considered in the Section 5A analysis. It was concluded that the proposed development was unlikely to have a significant impact on a local population of any of these species.

The Subject site forms part of the large (disturbed) habitats north of Cudgen Nature Reserve all the way to Kingscliff. A small diversity (based on survey results) of fauna will be moving through the Subject site. It must be considered that when development on all surrounding portions of the Kings Beach Estate occurs in the near future it will be impossible for the site to form part of an important fauna movement corridor in this locality.

The proposed development will result in a loss of habitat for species recorded from the site. In a regional sense, the loss of habitat is considered to be inconsequential for common species. It was considered that the loss of habitat for threatened species such as the Common blossom bat and Black flying fox could be acceptably ameliorated by the establishment of habitat planting areas on other parts of the Kings Beach Estate”.

Comment

Section 78(8)(b) of the Environmental Planning & Assessment Act, 1979 is as follows:-

“78(8) A development application must be accompanied by:

(b) if the application is in respect of development on land that is, or is a part of, critical habitat or is likely to significantly affect threatened species, populations, or ecological communities, or their habitats - a species impact statement prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995”.

The Species Impact Statement accompanying the development application S96/135 for Stage 1 applied to the whole of the Kings Beach site. Subsequently, advice was sought from the NPWS and Council’s Solicitors as to whether or not the Stage 3 development application and subsequent applications will need to be accompanied by a Species Impact Statement.

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Council's Solicitors advised that Council may well have already complied with the Environmental Planning & Assessment Act, 1979 in that a SIS has already been provided for the whole site and has been assessed by the Council in great detail. Accordingly, a further study would not be required.

The NPWS have advised that any decision regarding the significance of impacts in subsequent stages on threatened species, and hence the need for a SIS, must be made by the consent authority.

Section 5A of the Environmental Planning & Assessment Act, 1979 provides 8 factors which must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats.

The Flora and Fauna report provides this Section 5A assessment and concludes that the development is not likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

Taking into consideration the advice from Council's Solicitors, the Section 5A assessment accompanying the original development application and the further 8 point test report submitted on 23 May and the letters from NPWS dated 16 May, 2000 and 24 May, 2000, it is considered that the development is unlikely to have a significant effect on threatened species, populations, or ecological communities, or their habitats and an SIS is not required.

Effect on Landscape/Scenic Quality of the Locality

A proposal of this scale and in this location will have an effect on the landscape and scenic quality of the locality by transforming the coastal landscape into an urban one. This affect is accepted due to the history and zonings of the site and the commitment given by the LEP amendment and the DCP for residential development in this location. The more scenic areas in the land are protected by the 7(f) Environmental Protection (Coastal Lands) zone.

Earthworks will modify the topography of the land, but not significantly.

The applicant has submitted a typical streetscape concept which is very satisfactory.

The visual impacts will be reduced by appropriate buffering and landscaping.

The development will be consistent with the general character of new residential estates.

Access, Transport and Traffic

Issues in relation to traffic, access and road layout have been reviewed by Council's Engineering Services Division, Subdivision Engineer and the Local Traffic Advisory Committee. The comments made by the Local Traffic Committee which are outlined in this report will be incorporated, where necessary, into the design of the proposal to improve the layout.

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The width of roads 2 to 5 are of concern being only 6m wide especially as AUSTROAD rules prohibit all parking on footpaths. It is considered that 7.5m would be better in accordance with the new AUSTROAD rules and with vertical kerb on all new roads now.

AUSTROADS Part 15 states that pine log, chain wire or post and wire fences should not be within 1m of a cycleway. Any consent will be conditioned appropriately.

The Statement of Environmental Effects states that the cycleway/walkway are designated to ensure user safety, however, this intention may not be the case given the non compliance with this AUSTROAD and Australian Standards.

The garbage vehicles for Solo Waste (Council's Garbage Contractor) are having problems with turning circles. Solo Waste have advised that the turning radius for the garbage vehicles is 11.2m while the total overhang of the vehicle is 12m. Council's current DCP16 - Subdivisions Manual provides for cul-de-sacs to have a radius of 9m. These conditions lead to the garbage vehicle having to do 3 point turns in restricted areas, leading to potential major safety problems due to unsupervised turning.

It is noted that the concept layout plans for Kings Beach Stage 3 contains some streets with cul-de-sac designs which in Solo Waste's submission, create significant risk management/safety issues. However, the conclusion is that the current quality of residential amenity design should be supported and not compromised by the garbage vehicle manoeuvring optimal requirements. It is considered that the proposed layouts should be reviewed in light of the above, otherwise the garbage service may not be able to be provided to some properties.

Character, Location, Siting, Design and External Appearance, Size and Shape of the Land etc

This development although similar in some ways in character to other residential estates, is a unique development on the Tweed given its close proximity to the Coast. Subsequently, the proposal has attempted to optimise its proximity to the Coast creating a unique estate.

Nevertheless, a number of design issues have been identified, as discussed in this report which include the subdivision in the 7(f) zone, location of parks, infiltration basins and drainage reserves in open space areas and a number of traffic/road issues.

One other issue is the width and depth to frontage ratio of the beach front lots. These lots generally have a width of 12 metres with a depth of 60 metres. There were initial concerns that difficulties would arise in designing and siting a complying dwelling on the lots given that they have a 12m frontage and normal side boundary setbacks are 900mm and also that having such narrow lots may create design and siting problems to allow consistency with Council's DCP39 - Energy Smart Homes Policy. As discussed in the section titled DCP39 - Energy Smart Homes Policy, the lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis and this is

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not consistent with the DCP and could have undue shadow effects on the beachfront lots.

The applicant has provided plans showing that dwellings of pre-established and innovative design can be accommodated on beachfront lots. These plans indicate that a dwelling can be sited on each beachfront lot with a side setback of 900mm to the eaves and a maximum site coverage of 50%. In addition, the applicant has also provided examples of dwellings constructed on narrower lots (10m wide) on the Gold Coast.

In view of the detailed controls proposed in the Architectural Design Regulations (ie. setbacks, site coverage, building envelope) which are to be enforced by the Architectural Review Committee and the additional information supplied, as discussed above, it is considered that a dwelling is likely to be sited on these narrower lots.

Subsequently, any dwelling erected on a beachfront lot will need to comply with the Architectural Design Regulations and Council's statutory guidelines.

Architectural Design Regulations

In order to ensure that the development is unique the applicants have prepared *Architectural Design Regulations* (ADR) for Kings Beach. These ADR's are intended to encourage the design of the houses to reflect particular informal character, openness and individuality appropriate to the beach community.

The ADR provide that all building works, (including external construction, alterations, additions, repairs, including painting and repainting, construction and alterations to any fence, retaining walls, exterior lighting, driveways and landscape and tree planting) will need to comply with the ADR and will also require approval from an Architectural Review Committee (ARC). The ARC will include those persons appointed by the applicant, and will more than likely consist of architects etc. Approval from the ARC for any building works must be obtained before applying to Council for approval. The ADR also proposes that Council will be party to assist in enforcing the ADR.

Council's Building Unit has reviewed the proposed ADR's and provide the following comments. Accordingly, it is considered that Council should not be party to the enforcement of this complex design regulations, and Council should only process new dwelling development applications and construction certificate applications that have been endorsed by the ARC. In addition, any endorsement or approval by ARC is not to substitute for or guarantee development approval from Tweed Shire Council.

Building Unit Comments

'Having received the ADR, the submission dated 28 January by Crone, McKerrrell Lynch and reviewed the 88B instrument proposed for Kings Beach the Building Control Unit offer the following comments.

It is the Building Control Unit's belief that the ADR should not be included in any legal document to be administered by Council.

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Notwithstanding that, some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a document such as the 88B or a DCP for control by Council.

This will allow the developer to amend the ADR without reference to Council as the issues relevant to Council would be bound by the 88B or DCP.

Accordingly, Building Control will require the following condition to be incorporated in the subdivision approval in both the DCP and 88B Instrument.

- “1. The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.*

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4m and not less than 5m to the wall of the double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3m from the front street boundary.

- 2. The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 6.75mm to the outer most projection of the eave.*
- 3. The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3m.*
- 4. For beach front lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.*
- 5. All fencing east of the 7(f) and 2(e) zone boundary shall be a minimum height of not more than 1.2m”*

The above conditions are to include wording to allow for variation by Council should it be expedient to do so on the merits of each submission to Council, ie. or as otherwise varied by Council”.

Infiltration Basins and Drainage Swales in Open Space (Dual Usage)

The application proposes to locate a number of infiltration basins and drainage swales within the north/south open space corridor to the east of the site. An east/west drainage swale is also proposed through open space (residue lot 91). Concerns have been raised in relation to the appropriateness of these basins in the open space. These may create maintenance problems for the open space and also for the basins and swales themselves. In addition, the infiltration basins and drainage swales may restrict the amount of useable open space available in this locality, and detract from the amenity of this land. With the basins and swales so close to the Crown Reserve there is also the possibility of runoff escaping into the Reserve, which is not satisfactory as all runoff from the

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development site is to drain to the west only. Council's Manager of Recreation Services has advised that the primary function of these areas is to provide appropriate open space to the community. Any proposed dual usage should be planned so as not to compromise this function. Consequently, open drains proposing slopes of <20 degrees should be avoided.

In an attempt to resolve the above problems, the applicant was requested to redesign/relocate the infiltration basins. This included redesigning the basins so that they compliment the open space and do not detract upon it and create any maintenance problems. Possible landscaping of these areas will also compliment the basins. To support the redesign the applicant is also to provide a hydraulic analysis and infiltration rates for these areas. These details have been submitted to Council.

To support the dual usage of the open space the applicant has provided a profile and schematic showing how it is planned to integrate the infiltration basins in the open space. The applicant has also provided the following:-

“Further to the meetings of 28/3/00 and 3/4/00, we have pleasure in submitting for your consideration a profile and schematic showing how it is planned to integrate the infiltration basins in the proposed 7(f) zone foreshore area with the public walkway/cycleway and the individual common gates from the private lots to this foreshore area.

As discussed at the earlier meeting, we have prepared this illustration to assist Council in demonstrating how the various elements are intended to be integrated without impacting upon either the integrity and/or functioning of the infiltration basins and the public open space with associated walk and cycleways.

Cardno MBK and Gamble MckInnon (Casuarina's landscape architects) in association with MGI, have responded to your specific concerns by showing how the multiple 300mm deep infiltration basins, planted with endemic dune grasses are intended to be interspersed within the public foreshore open space area in such a way as to function both as 'indigenous' landscape features but with the necessary engineering features to accommodate runoff as required.

The example attached herein has taken areas in the Stage 2 Application as a basis for examining how all functions are proposed to be integrated. Specifically, the areas immediately west of the foreshore public open space, include:

- *the private residential lots and public access to the beach;*
- *public open space (ie. public parkland area which extend west from the foreshore area into the development area proper);*
- *the commercial land use area (exemplified by the resort sites); and*

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- *the road reserve with its associated parking which together form part of the proposed Beachside Village.*

As will be noted, reference is made to the curvilinear nature of the walkway/cycleway in order to provide greater interest while removing any tendency towards a 'gun barrel' approach. There will be continuous visual transition between the public and private open space, while chain linked timber platforms are proposed to visually punctuate pathway intersections and control bicycle speed.

The linked timber walkway to Casuarina Beach shown east of the 50 year erosion line is also at the intersection of the public accessway through the private lands to the foreshore walkway/cycleway. It is intended that the 2.5 metre foreshore pathway will be coloured concrete for both pedestrian and cycle use.

It is also intended that the natural dune vegetation regrowth will be supplemented with additional endemic plantings.

The Management Lot boundary is shown as it highlights where, at the southern area, the foreshore park and walkway will be developed in the eastern most portion of Lot 500, for which DLWC and Council's (as the Trustee) consent is required in order to lodge the DA for these foreshore works.

Cross-sections have been presented to assist in demonstrating how the east/west land use associations are intended to be handled.

We trust that this pictorial exhibit and the accompanying explanation as to how the client intends to treat this important area, will satisfy Council's question as to how the multiple foreshore functions can be attractively designed whilst also ensuring that the engineering infrastructure can not only work effectively, but can do so in an integrated manner".

In addition, the applicant has also amended the figures and has decreased the linear size of the infiltration ponds in the north south open space area.

The Manager, Recreation Services has taken the above information and details into consideration and now considers that the proposed infiltration basins are acceptable in the open space and are unlikely to create any significant adverse impacts on the amenity of the open space.

In addition, the east/west drainage swale may be piped and any consent will be conditioned appropriately.

Subdivision Engineer Comments

In relation to the Hydraulic calculations and infiltration rates provided by the applicant, Council's Engineers have provided the following information in relation to stormwater drainage.

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“The applicants have submitted further documentation to support their proposal for the infiltration system and the stormwater management scheme. The following comments refer to the applicants proposal in relation to both the hydraulic analysis and the infiltration system.

1. Stormwater Hydraulic analysis

The hydraulic characteristics of the swale system was modelled using the HEC-RAS computer model. The output from this analysis estimates flows for the Q5 and Q100 events.

This analysis estimated the discharge at outlet 7 as follows:

Q5 - 4.0m³/s

Q100 - 9.5m³/s

It must be noted that the applicants have assumed that the discharge flows have been reduced by the following infiltration/seepage losses;

Q5 flow reduced by 35%(20% runoff lost into sandy soil + 15% infiltration)

Q100 flow reduced by 25%(20% runoff lost into sandy soil + 5% infiltration)

Comment

It is apparent from the advise submitted from the applicants that the proposed stormwater drainage system is reliant on infiltration as a method to reduce the discharge at outlet 7.

Perusal of Figure E18C shows the Q100 water surface profile along the eastern swale. The Q100 water surface is clearly below the surface level of the residential allotments as the 7(f) land does not become inundated.

If the infiltration reduces as a consequence of clogging it is unclear what impact this will have on the Q100 water surface levels.

Discussion with applicant

The applicant was contacted by phone and asked what would happen if the model was run assuming no infiltration. They advised that this exercise had already been undertaken and the results concluded that no residential allotments would be flood effected.

Following the above advice the applicant were been requested to produce a plan showing the allotment layout with the Q100 flood line superimposed over the top of the layout. The applicant have agreed to produce this plan.

2. Infiltration

Reports from Director Development Services

The applicants advise that the average infiltration for the 8 sites measured was slightly in excess of 50m/day. Further, they advise that they have adopted an infiltration rate of 1 m/hr and argue that this rate is entirely supportable and suitably conservative for engineering design purposes.

Based on the infiltration rate of 1 m/hr and the calculated design flow rates the infiltration basins were sized to adequately handle all runoff from the catchment for events up to and including the 1 year event.

Comment

The applicants argue that the adopted infiltration rate of 1m/hr is conservative given that the measured rates are 2m/hr. They advise that the adoption of 1m/hr allows for significant clogging to take place within the soil and therefore is conservative for engineering design purposes.

It would appear that the success of the infiltration basins are dependant on a regular maintenance program to ensure that clogging does not occur.

Discussion with applicant

The Infrastructure Engineer has discussed the proposed infiltration rate of 1m/hr with the applicant. After considerable discussion the applicant agreed to adopt an infiltration rate of 0.25m/day.

The applicant agreed to re size the infiltration basins using an infiltration rate of 0.25m/day and a three(3) month design storm(Q3month). The Q3 month being 45% of a 1 year storm (Q1).

Conclusion

If the applicant runs the hydraulic model for the Q100 event assuming no infiltration and the results of this analysis indicate no inundation to any allotments, it is considered that the stormwater system for the development will be satisfactory.

In relation to the infiltration rate of 0.25m/hr no conclusion can be provided at this stage. Any conclusion would be subject to the applicant re sizing the basins and showing that they fit within the available area. Obviously, the applicant must prove that the infiltration basins will not adversely effect the open space requirements. Particularly if the size of the basins has to be increased due to the reduced infiltration.”

It would appear from the above comments that from an Engineering prospective the proposed infiltration basins and drainage swales are likely to be satisfactory. However, as indicated above, it is recommended that the eastern bund of the north/south drain shall be raised so that it provides 300mm freeboard above the design Q100 water surface level.

Reports from Director Development Services

Obviously raising this bund may adversely impact on the amenity of the open space which is not satisfactory.

Utility Services

The Stage 1 linen has not been lodged and therefore Works as Executed Plans for water supply have not been received demonstrating that each management lot has access to reticulated water supply.

Construction of the sewer rising main for Stage 1 has commenced, however the reticulation to the management lot has not been approved, constructed or bonded.

These matters can be conditioned.

Landscaping

Street trees will be provided or contributions obtained.

The proposal will involve the removal of a substantial amount of vegetation which in part has been accepted due to the zoning of the land and the DCP which has been prepared.

The landscape master plan for Stage 2 provides for extensive landscaping over the site. Landscaping is primarily provided along the streets, roads and within the open space. The principle goal of the landscape works is to provide the Kings Beach community with a safe, secure environmentally sustainable landscape, which facilities a broad range of private and community based recreational activities.

The landscaping shall improve the amenity of the site and should also ensure that the maintenance of those areas is minimised. It is considered that landscaping this site should be undertaken in accordance with the landscape master plan for Stage 2 and the details provided with the application.

Natural Hazards

No known natural hazards are likely to affect the site other than coastal processes.

This together with the Crown Reserve to the east should provide adequate protection to the site.

Social/Economic Effect

As discussed in Section (a)(i) of this report, the TLEP 2000 requires that social impact assessment be provided for developments that may have a significant social or economic impacted. It is considered that this assessment is not necessary.

The proposal will provide additional dwelling lots to cater for some of the growth along the Tweed Coast. The proposal will increase demands for services and facilities some of which will be catered for on the site when various stages of the Kings Beach development are released. There will be an increased maintenance burden for Council

Reports from Director Development Services

for the additional structured and casual open space. However, this open space is required to meet the need of the future population.

The proposal will provide employment opportunities both during the construction and post construction phases. This will likely improve the economy of the locality and the Tweed with potential spin off effects.

In addition, the Kings Beach development will also provide additional rate revenues for the Tweed Shire Council.

(c) The Suitability of the Site for the Development

As discussed throughout section (b) of this report it is generally considered and accepted that the site is suitable for the development, subject to some redesigning and other issues as identified in this report which need further review. The site has a long history and has a commitment given by the LEP amendment and DCP for residential development in this location.

This report has identified a number of issues which indicate that the development is not suitable for approval until they are satisfactorily resolved. These issues include compliance with the Stage 1 consent S96/135, outstanding advice from NPWS in relation to Flora and Fauna Assessment and compliance with Stage 1 consent conditions, owners consent from DLWC, dual usage at open space to include infiltration basins and drainage swales. Implementation of the Architectural Design Regulations, compliance with the Deed of Agreement and inconsistency with DCP11.

It is concluded that should these issues be resolved it is considered that the development is suitable to the site and locality.

(d) Any Submissions made in accordance with the Act or Regulations

Public Submissions

The application was not statutorily required to be advertised.

Public Authority Submissions

See consultation section of this report.

(e) The Public Interest

A number of State Government Planning Policies (SEPPs) and other planning guidelines (LEPs and DCPs) have relevance to this application. All these policies and plans were discussed in Section (a) of this report.

As discussed in Section (d) the application was not statutorily required to be advertised.

ENGINEERING SERVICES DIVISION COMMENTS

As discussed in Section (b) of this report titled "Access, Transport and Traffic" a number of design issues have been identified which need to be amended. It is considered that these issues can be adequately conditioned on any consent.

Reports from Director Development Services

Water and Sewer Engineer Comments

See comments under “utility services” of this report.

Infrastructure Engineer Comments

“A *Drainage Comments.*

1. *General Land Form and Drainage*

This application covers parts of Management Lots 5 and 7 created by Kings Beach Stage 1 consent and the former Narui (now Richtech) being Lot 1 DP 811425. The land is generally east of the Coast Road between the connection to Old Bogangar Road and Seaside City.

Figure E208 REV B shows the proposed final landform for all of the subject land. Figure E229 REV A indicates that only the land containing proposed residential lots, residue lot 82 and the drainage path from the east to Controlled Outlet No. 11 will be reformed at this stage and the balance of the land (being proposed lots 84, 85 and 91) will remain at current levels until later applications. The land now generally slopes unevenly from the Coast Rd towards the coast, the proposed landform is similar, but, shifts the ridge line to the east at the north of the site and evens out the gradient between the ridge line and the eastern boundary of the land.

Cardno MBK Figure E207B Rev B shows natural surface levels and Figure E208 Rev B shows proposed finished surface levels. Proposed land levels at the northern boundary of the site seem to be at variance with existing levels on adjacent land, being a crown road reserve which separates Stage 3 from the “Seaside City Subdivision”. A consent condition will be required to resolve this inconsistency.

Drainage is to be collected in internal subdivision roads by conventional underground drainage and discharged into a south flowing swale/infiltration drain at the coastal boundary. This drain is to turn to the west at the southern end of residue lot 82 and proceed via open space lands to Controlled Outlet No. 11.

Proposed land levels at the northern boundary of the subject land are at variance with existing levels of adjacent land (being a road reserve). This will require a retaining wall along this boundary, unless agreement can be obtained to extend earthworks onto the adjacent land.

2. *Site Drainage*

2.1 *Background*

The Stage 1 DA provided a SW quality strategy based on “Statement of Evidence - Report on Master Drainage and Stormwater Management Strategy by PN Casey, September 1998” This proposed:-

- *“direct infiltration of “clean” water into the sands, eg roofwater;*
- *modular pavements in hardstand, carpark areas;*

Reports from Director Development Services

- *vegetated filter strips on verges, and development edges adjoining public open space;*
- *permeable sumps at building down pipe ends;*
- *drainage catch basins in the “treatment train”;*
- *gross pollutant traps (GPTs) such as HumeceptorTM on lateral drainage lines outletting to the trunk drainage network from development areas;*
- *underground infiltration cells (Atlantis Drainage Cells a product developed for such purposes as stormwater quality treatment), placed offline, but fed from the trunk drainage system downstream of GPTs.”*

Pat Casey also proposed an “Alternative Water Quality Treatment System” in Appendix A of his evidence. The “Alternative system” was proposed to comprise the following elements:

- *“Catch basins (EPA Guidelines, Ref. 9, Section 4.6)*
- *HumeceptorTM Gross Pollutant Traps*
- *Sediment Traps (EPA Guidelines, Ref. 9, Section 4.3)*
- *Infiltration basins incorporating wetland (EPA Guidelines, Ref. 9, Section 5.6)”*

This application includes a report from Cardno MBK “Kings Beach Development - Proposed Stormwater Treatment & Disposal Incorporating The Alternative System” this report in general terms proposed (section 2.2)

- *infiltration of roof runoff*
- *discharge of road drainage through catch basins*
- *further treatment of road runoff by grass swales*
- *final treatment by infiltration basins*

Since the submission of the application there have been many meetings between the developers representatives and Council officers regarding drainage and water quality issues. Many amendments to the original plans have been submitted and at the time of writing this report still further reports on hydraulic analysis and infiltration basin sizing/location/design are awaited from the applicant’s consultants (Cardno MBK).

Cardno MBK letter 21/2/200 contained Attachment B “Water Quality Management and Monitoring Program” containing proposals for water quality management in the operational phase, water quality objectives, sampling and monitoring program, erosion and sediment control plan. For the operational phase it proposed a treatment train consisting of:

- *Disposal of roof water drainage by on-site infiltration for individual properties*

Reports from Director Development Services

- *Collection of sediment and gross pollutants via catch pits*
- *Installation of Humeceptors at locations where oils and greases may be generated*
- *Transport of stormwater runoff by grassed swales and vegetated strips*
- *Screening of outlets to infiltration basins to capture gross pollutants*
- *Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins*

Conditions will be recommended to incorporate the above stormwater quality management principles and the provisions of Council's Stormwater Quality Management Plan.

2.2 Lawful Point of Discharge

This DA is for subdivision of Management Lots 5, 7, 13, 14 and the Richtech (Narui) lot. The proposed point of discharge is Controlled Outlet 11.

The proposed point of discharge at Controlled Outlet No. 11 is satisfactory and was anticipated in the Stage 1 approval. Stormwater passing through Outlet 11 will discharge by overland sheet flow across passive open space lot 8 to Cudgen Creek. Stormwater from this application must traverse proposed open space Management Lot 11 to drain to Controlled Outlet No. 11. Easements/reserves across proposed lot 10 will be required for continuity of drainage paths to the outlet.

2.3 Proposed Drainage System

2.31 Drainage Layout

It is understood that roof water from dwellings will be infiltrated on each individual allotment which will reduce the volume of stormwater runoff to the public drainage system.

The proposed subdivision lots front roads Nos. 1, 2, 3, 4 & 5. These roads are provided with conventional underground drainage. Q5 road drainage is to be piped through west/east pathways to a south flowing coastal swale drain. These west/east pathways also convey Q100 overland flows. Some Q100 overland flow from Road No. 4 is proposed to be discharged into the east/west crown reserve road at the north end of the site, this is unsatisfactory, and Road No. 4 should be regraded to contain Q100 runoff within the site drainage system.

Stormwater (up to Q100) is to be conveyed in a southerly direction along a proposed coastal swale drainage/infiltration system. (This is a proposed dual use area also containing walkway/cycleway and public open space/landscaping. This proposal is satisfactory from a drainage perspective, but, other units will need to determine its suitability for and compatibility with the other proposed uses.) The coastal swale drain proceeds south to the south east corner of proposed lot 82, junctions with another coastal swale drain from the opposite direction heading north, and turns west through proposed (dual use) open space areas, and proposed open space Management Lot 11, to Controlled Outlet No. 11. The applicants plan Cardno MBK Figure E222 Rev B "Drainage Path,

Reports from Director Development Services

Cycleways and Infiltration Ponds” shows schematic layouts of infiltration basins in the coastal swale drain and in the future proposed open space area in proposed residue lot No. 91.

2.32 Drainage System Capacity

Cardno MBK Figure E216C contains a long section of the trunk drain. The submitted finished surface cross sections (Figure E211 REV A) only provide cross sections of the coastal drain at 2400m and 3200m and miss the drain between 2425m and 3294m. However when natural surface levels to the east (coast) side of drain are plotted on the long section it indicates that the Q_{100} water surface profile will be up to 1.5m higher than these natural levels. This implies that a bund wall of significant height will be required on the coast side of the drain to contain the runoff with standard 300mm freeboard.

Conditions will be required to ensure adequate freeboard on the coastal side of the drain.

2.4 Infiltration

2.41 Purpose of Infiltration

Infiltration fulfils two purposes. Firstly it reduces the volume of stormwater runoff, enabling a reduction in the size of downstream drains. Secondly it improves stormwater quality by removing some water born pollutants.

For water quality treatment, infiltration is usually designed to capture the runoff from up to a 3 month ARI storm ($Q_{0.25}$) which will capture over 90% of annual runoff.

2.42 Dual Use Issues

The applicants consultant Cardno MBK has submitted “Consolidated Properties Pty Ltd, Casuarina Beach, Infiltration Basin Analysis, March 2000” to supplement information submitted with the application. This analysis proposes location of infiltration basins in public open space associated with the coastal walkway/cycleway and other designated open space areas and goes on to say “Council officers have indicated that these layouts are satisfactory, “. It would appear however from comments made at a meeting held 28 March 2000 between Lenen, Consolidated Properties and Council representatives that this issue is not settled. There is a possibility that proposed drainage infiltration basins may not be compatible with the open space/walkway-cycleway uses on the coastal frontage and may also not be compatible with open space uses.

At some meetings it has been suggested that the infiltration basins could be turfed and on other occasions that the basins should only be vegetated with sparse coastal tussocky grasses, with significant areas of bare sand. From an infiltration perspective the latter would be acceptable, but, a turfed surface would be unacceptable due to an inherent loss of surface permeability.

A meeting with the Manager Recreational Services 13 April 2000 explored dual use (drainage/open space) issues. MRS indicated that slopes in excess of 5% which would be required to define channels and create workable drainage invert levels would be incompatible with open space objectives.

Reports from Director Development Services

For the purpose of this report a condition can be drafted requiring a certain area (sq m) of infiltration basin for each catchment, together with criteria for the basins design and management. Other units will need to determine compatibility with other proposed uses.

2.43 Infiltration Basin Sizing

2.431 Permeability

The applicant's infiltration analysis contains percolation tests in accordance with Appendix B of AS 1547, Disposal Systems for Effluent from Domestic Premises which have measured permeabilities ranging from 44 to 57 metres per day. For design and sizing of infiltration basin purposes they have adopted 24m/day.

There is no current Australian Standard for design of stormwater infiltration systems. In the absence of such a standard the applicant has used the sewerage effluent standard AS 1547 to derive permeability rates. This standard gives 1.2 - 6 m/day as typical values of permeability in sand, which are considerably less than the rates measured and proposed for design and sizing of infiltration basins by the applicant. The standard modifies raw permeability rates by a "Long Term Acceptance Rate" table (resulting in a reduction factor of up to 100 times) for sizing absorption areas. The applicant does not propose any such reduction in their raw permeability rates to allow for long term reduction in permeability due to clogging and other factors.

A condition is proposed to reduce raw permeability rates to lower values that are more acceptable for design of long term infiltration areas.

2.432 Location and Sizing of Ponds

At the time of writing this report, further information from T Johnson (Cardno MBK) is awaited concerning the location and sizing of infiltration basins for the Controlled Outlet No. 11 catchment. Conditions can specify criteria for sizing total basin size for each catchment. The actual location and sizes of individual ponds is undetermined at this stage.

For the purpose of this report a condition can be drafted requiring a certain area of infiltration basin for each catchment, together with criteria for the basins design and management. Other units will need to determine compatibility with other proposed uses.

3 Stormwater Quality

3.1 Erosion and Sediment Control

The ESCP submitted with the DA and the final proposal for ESCP contained in part 5 of Cardno MBK "Water Quality Management and Monitoring Program" (1/2/200) are insufficiently detailed to serve as the basis of conditions of consent for this activity.

Council's recently adopted Urban Stormwater Quality Management Plan (prepared in accordance with a Direction EPA under Section 12 of the Protection of the Environment Administration Act, 1991) requires stormwater objectives during the construction phase of new development to comply with "Tweed Shire Council, Aus-Spec D7 - Stormwater

Reports from Director Development Services

Quality, and Annexure A - Code of Practice for Soil and Water Management on Construction Works". Proposed conditions of consent will incorporate these requirements.

3.2 Permanent Stormwater Quality Controls

The final proposal is contained in Cardno MBK letter 21/2/200 Attachment B "Water Quality Management and Monitoring Program", for the operational phase it proposed a treatment train consisting of:

- Disposal of roof water drainage by on-site infiltration for individual properties
- Collection of sediment and gross pollutants via catch pits
- Installation of Humeceptors at locations where oils and greases may be generated
- Transport of stormwater runoff by grassed swales and vegetated strips
- Screening of outlets to infiltration basins to capture gross pollutants
- Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins

Whilst no water quality modelling accompanies this application, the treatment train proposed is similar to that proposed in the North Kings Beach (Sahben) site and would yield similar results.

Council's Stormwater Management Plan, adopted 19 April 2000, proposes the following stormwater quality objectives for new urban development:

"Pollutant			
<i>Nutrients</i>	<i>Maximum permissible load that may be discharged kg/ha/year</i>		
	<i>Average year (1719mm)</i>	<i>Wet Year (2185mm)</i>	<i>Dry Year (929mm)</i>
<i>Suspended solids (SS)</i>	300	400	120
<i>Total Phosphorus (TP)</i>	0.8	1.1	0.35
<i>Total Nitrogen (TN)</i>	4.5	6	1.5
<i>Litter</i>	<i>Retention 70% of annual litter load greater than 5mm</i>		
<i>Coarse sediment</i>	<i>Retention of 90% of annual load of sediment coarser than 0.125 mm</i>		

Reports from Director Development Services

Oil and grease (hydrocarbons)	<10 mg/litre in flows up to 40% of Q1 peak.”
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The proposed stormwater treatment train, as modified by proposed consent conditions, should yield results that generally achieve this standard.

4. Conclusion

Issues regarding stormwater quality, infiltration, erosion and sediment control can be addressed by consent conditions.

Dual use issues for land to be used for both drainage and open space remain unresolved at this stage. If the landform resulting from drainage constraints renders designated open space land unsuitable for that purpose, then drainage may need to be undergrounded or relocated onto other land. Relocation of drainage or water quality devices onto other land will require the dedication of additional land and a consequent revision of the subdivision/lot layout to provide this additional land.

The proposed land reforming presents difficulties with level inconsistencies at the boundaries with other land, consent conditions will address this issue”.

ENVIRONMENT AND COMMUNITY SERVICES DIVISION COMMENTS

The Environment and Health Services Unit raise no objections to the proposal. The submitted acid sulfate soil management plan, water quality monitoring and management plan and the sedimentation and erosion control plan are all satisfactory and will be included as a condition of any consent.

The Building Services Unit raise no objections to the proposal. However, as discussed in Section (b) of this report the Building Unit have assessed the architectural design regulations and have identified a number of issues and have recommended that Council should not be party to the ADR.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS

As discussed, the applicant has lodged an appeal to the Land and Environment Court based on a ‘deemed refusal’. This reinforces the importance of Council determining this application.

OPTIONS

Council can either:-

1. Approve the application subject to conditions - modified or as recommended.
2. Refuse the application.

CONCLUSION

This report concludes that all issues have been satisfactorily resolved or can be addressed by appropriate conditions.

Reports from Director Development Services

This is a very significant development for Tweed Shire and, indeed, in the State. Following intensive discussion/negotiations with Lenen Pty Ltd and Consolidated Properties over recent weeks, the application is now recommended for conditional approval.

In the event that Council resolves to approve this application, the Director Development Services will write to Lenen Pty Ltd and the applicant requesting discontinuance of the current deemed refusal appeals and withdrawal of the current Section 96 application to the Court to modify condition 41(d) of the Stage 1 consent.

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3. ORIGIN: Subdivision Unit

FILE REF: DA1180/385 Pt3

REPORT TITLE:

Proposed 101 Lot Subdivision at Lot 3 DP 865049 Coast Road, South Kingscliff - Casuarina Beach Stage 4 (DA K99/1732)

SUMMARY OF REPORT:

The application proposes the Stage 4 subdivision of the Casuarina Beach development into 101 lots. The proposal consists of conventional allotments and larger lots for tourist and commercial development which will be subject to future development applications.

This application is over Management Lots 3, 4, 9 and Part of 13 identified in the Stage 1 consent and the value of works involved is estimated at \$4.8 million.

The applicant has lodged an appeal to the Land and Environment Court based on a "deemed refusal". Therefore, it is considered that the application should now be determined based on the information at hand and given recognition of the contractual arrangements between Lenen Pty Ltd and Consolidated Properties requiring finalisation before 30 June, 2000.

Council has undertaken many meetings and discussions with the applicants to resolve the outstanding issues and it is now considered that the application is suitable for conditional approval, subject to the recommended conditions.

Advice from the National Parks and Wildlife Service in response to a further assessment report on flora and fauna submitted on 23 May, 2000 was received on 24 May, 2000 and a copy of that letter is an annexure.

The recommended conditions below include the latest National Parks and Wildlife Service recommendations (dated 24 May, 2000) with regard to Banksia plantings.

On balance, it is considered that there is unlikely to be a significant effect on the Glossy Black Cockatoo and Marine Turtles and other fauna and therefore a Species Impact Statement is not required.

During the workshop on 24 May, 2000, the applicants consultants requested amendment and/or deletion of the following conditions: 43(ii) and (xi) and 61(d) dot point 7.

Those conditions have been reviewed by Council officers and amended as requested, with the exception of Condition 43(xi).

RECOMMENDATION:

That :-

- A. That Development Control Plan No. 11 - Kings Beach be amended to reflect condition 8.

Reports from Director Development Services

- B. Council approves the Stage 4 development application K99/1732 submitted by Kings Beach Project (No. 2) Pty Ltd for the subdivision of Lot 3 DP 865049 Coast Road, South Kingscliff into 101 lots subject to the following conditions:-

PRE-REQUISITES - conditions that must be complied with prior to the release of a construction certificate

1. Prior to the issue of a Construction Certificate a Fire Management Plan is to be submitted and approved by Council. The plan shall address potential environmental impacts, including impacts on threatened species.
2. A detailed plan of landscaping is to be submitted and approved by Council prior to the issue of a Construction Certificate. All landscaping work is to be completed in accordance with the approved plans. The detailed landscaping plan shall include a list of species which ensure no potential for seed transfer to Lot 500 which would conflict with the propagation and maintenance of species specified in the Dune Management Plan and Lot 500 Management Plan.
3. A traffic control plan that complies with the provisions of the RTA document "Traffic Control at Work Sites" Version 2 shall be prepared by a person who is qualified, authorised and has passed an RTA approved training course, prior to issue of the Construction Certificate. The applicant shall submit evidence to Council that the traffic control plan has been prepared by an authorised person. All works are to comply with the Occupational Health and Safety Act and the RTA document and the approval particularly in respect to works on public roads. Safe public access shall be provided at all times.
4. Prior to the commencement of work the applicant shall submit to Council evidence that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared in accordance with either:-
 - a. Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or
 - b. AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
5. The Stage 1 linen plan required by the Stage 1 development consent S96/135 shall be registered PRIOR to issuing any Construction Certificate pursuant to this condition. The Stage 4 application is to be consistent with the lot boundaries of open space lots 8, 9, 10, 11, 12, 13 & 14.

GENERAL

6. Prior to the issue of a Subdivision Certificate pursuant to this consent **ALL** works bonded pursuant to Consent S96/135 for Stage 1 shall be completed to the satisfaction of Council.

Reports from Director Development Services

7. Submission of separate development applications for further development of the residue lots (lots 54, 55, 56 and 99).
8. The Architectural Design Regulations shall not be included in any legal document to be administered by Council. NOTE: Some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a DCP for control by Council. Accordingly, DCP 11 – Kings Beach will need to be amended to incorporate the following conditions;

- (i) The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4 metres and not less than 5 metres to the wall of a double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3 metres from the front street boundary.

- (ii) The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 675mm to the outer most projection of the eave.
- (iii) The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3 metres.
- (iv) For beachfront lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.
- (v) All fencing east of the 7(f) and 2(e) zone boundary shall be a maximum height of not more than 1.2 metres.

The above conditions (i)-(v) can be varied by Council subject to the merits of each development application.

9. The development shall be completed in general accordance with Figures E104 Rev A, E105 Rev A and E106 Rev A prepared by Cardno MBK and dated September 1999, except where varied by these conditions.
10. Approval is given subject to the location of, protection of, and/or any necessary modifications to any existing public utilities situated within the subject property.
11. No soil, sand, gravel, clay or other material shall be disposed of off the site without the approval of Council.
12. Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired to the satisfaction of Council prior to the issue of a Subdivision Certificate and/or prior to any use or occupation of the buildings.

Reports from Director Development Services

13. The subdivision is to be carried out in accordance with Development Control Plan No 16 - Subdivisions Manual.
14. A Subdivision Certificate will not be issued by the General Manager until such time as all conditions of Development Consent No K99/1732 have been complied with.
15. The creation of easements for services, rights of carriageway and restrictions as to user as may be applicable under Section 88B of the Conveyancing Act including the following:
 - i. Easements for sewer, water supply and stormwater drainage over ALL services on private property.
 - ii. A restriction as to user requiring that all roofwater from dwellings shall be discharged to an approved infiltration pit located on the subject property. The infiltration pit shall be approved by the Principal Certifying Authority.

Pursuant to Section 88BA of the Conveyancing Act (as amended) the Instrument creating the right of carriageway/easement to drain water shall make provision for maintenance of the right of carriageway/easement by the owners from time to time of the land benefited and burdened and are to share costs equally or proportionally on an equitable basis.

Any Section 88B Instrument creating restrictions as to user, rights of carriageway or easements which benefit Council shall contain a provision enabling such restrictions, easements or rights of way to be revoked, varied or modified only with the consent of Council.

16. Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742-1991 (Manual for Uniform Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.
17. In pursuance of the provisions of the Disability Discrimination Act, 1992 (Commonwealth) the design of the proposed development shall facilitate access for the disabled in accordance with AS1428-1993 Parts 1 to 4 - Design for Access and Mobility.
18. Prior to the issue of a Subdivision Certificate, Council's standard "Asset Creation Form" shall be completed (including all quantities and unit rates) and submitted to Council.
19. Prior to commencement of work, a sign detailing the project and containing the names and contact numbers of the Developer, Contractor and Consulting Engineer shall be erected and maintained in a prominent position at the site to the satisfaction of Council. The sign is to remain in place until the Subdivision Certificate is issued.
20. It shall be the responsibility of the applicant to ensure that at all times the 'Optus Cable' which traverses the subject site is protected from construction damage.

Reports from Director Development Services

The applicant must identify the location of the cable prior to the commencement of construction. The cover over the cable shall not be permanently increased or decreased without the consent of the owner of the cable.

21. All retaining walls in excess of 1.2 metres in height must be certified by a Qualified Structural Engineer verifying the structural integrity of the retaining wall after construction.
22. Any damage to property (including pavement damage) is to be rectified to the satisfaction of the Director, Development Services PRIOR to the issue of a Subdivision Certificate. The surrounding road carriageways are to be kept clean of any material carried onto the roadway by construction vehicles. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the issue of a Subdivision Certificate.
23. In accordance with Section 109F(i) of the Environmental Planning & Assessment Act, 1979 (as amended), a construction certificate for SUBDIVISION WORKS OR BUILDING WORKS shall NOT be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment.

Open Space

Casual Open Space

24. Management Lot 13 in the Stage 1 consent S96/135 (proposed lot 101) in so far as they relate to this Stage 4 consent are to be suitably embellished in accordance with Condition 39(f) & (g) of Consent S96/135 for Stage 1 prior to the release of the linen plan for Stage 4 including:-
 - (i) removal of bitou bush and other noxious weeds
 - (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of Consent S96/135 for Stage 1 and good practice in this regard;
 - (iii) provision of adequate and appropriate security lighting for users of Lots 12 and 13;
 - (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the Statement of Environmental Effects for Stage 1 (S96/135).
 - (v) The land between the constructed cycleway/walkway and the Lot 500 boundary and the western boundary of proposed Lot 13 in Stage 1 shall be embellished to enable the area to be used for passive open space including picnicking to the satisfaction of Council. Existing tree cover shall be maintained to the maximum extent possible.

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- (vi) The cycleway/walkway corridor shall be landscaped and fenced in accordance with plans to be submitted and approved before work commences.
25. Dedication, at no cost, to Council of the local parks. These parks are to be suitably embellished including but not limited to filling, topsoiling, grading, seeding, planting, installation of seating and play ground equipment and shade cover. Details to be submitted with the Construction Certificate application to the satisfaction of Council. The embellishment works shall be completed prior to release of the linen plan.

Active Open Space

26. Prior to the release of the Stage 4 linen plan, the applicant shall embellish the active open space Stage 1 Management Lot No 9 to the satisfaction of Council in accordance with detailed plans to be submitted and approved with the Construction Certificate Application. Such embellishment shall be in accordance with S94 Plan No. 19, including;
- (i) being capable of use as playing fields (ie level of acceptable geometric shape, and drained).
 - (ii) Top dressing, seeded and landscaped, including irrigation facilities.
 - (iii) Council will also require provision of an amenities block for the structured open space area, with appropriate vehicular parking and pedestrian access.

CONTRIBUTIONS

27. (i) Payment of the following contributions pursuant to Section 94 of the Act and the relevant Section 94 Plan.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 94 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" signed by an authorised officer of Council.

These charges will remain fixed for a period of 12 months from the date of this consent and thereafter in accordance with the rates applicable in the current version/edition of the relevant Section 94 Plan current at the time of the payment.

A copy of the Section 94 contribution plans may be inspected at the Civic and Cultural Centres, Tumbulgum Road, Murwillumbah and Brett Street, Tweed Heads.

GST

If GST is applicable the following shall apply.

- 1.1 In this Clause 1:

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“GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a State or Territory Parliament which is charged or levied on goods, services or other things.

- 1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.
- 1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.
- 1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.
- 1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

GST payable = The GST inclusive market price of the asset x $\frac{1}{11}$.

- 1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

a. Tweed Road Contribution Plan:

97 lots @ \$2394 per lot \$232,218.00

S94 Plan No. 4 (Version 4.0)

(Duranbah/Cabarita/Kings Forest Development - Residential)

(iii) Heavy Haulage Component

Payment of a contribution pursuant to Section 94 of the Act and the Heavy Haulage (Extractive materials) provisions of Tweed Road Contribution Plan No. 4 - Version 4.1 prior to the issue of a construction certificate or subdivision certificate, whichever occurs first. The contribution shall be based on the following formula:-

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$\$Con_{TRCP - Heavy} = Prod. \times Dist \times \$Unit \times (1 + Admin.)$

where:

$\$Con_{TRCP - Heavy}$ heavy haulage contribution

and:

Prod. projected demand for extractive material to be hauled to the site over life of project in tonnes

Dist. average haulage distance of product on Shire roads

(trip one way)

$\$Unit$ the unit cost attributed to maintaining a road as set out in Section 6.4 (currently 2.5c per tonne per kilometre)

Admin. Administration component - 5% - see Section 6.5

- | | | |
|----|--|-------------|
| b. | Street Trees: 97 lots @ \$42.90 per lot | \$4,161.30 |
| | S94 Plan No. 6 | |
| c. | Shirewide Library Facilities: | |
| | 97 lots @ \$300 per lot | \$29,100.00 |
| | S94 Plan No. 11 | |
| d. | Eviron Cemetery/Crematorium Facilities: | |
| | 97 lots @ \$126 per lot | \$12,222.00 |
| | S94 Plan No. 13 | |
| e. | Bus Shelters: 97 lots @ \$23 per lot | \$2,231.00 |
| | S94 Plan No. 12 | |
| f. | Emergency Facilities (Surf Lifesaving) | |
| | 97 lots @ \$80 per lot | \$7,760.00 |
| | S94 Plan No. 16 | |
| g. | Extensions to Council Administration Offices | |
| | & Technical Support Facilities | |
| | 97 lots @ \$344.81 per lot | \$33,446.57 |
| | S94 Plan No. 18 | |
| h. | Cycleways 97 lots @ \$160 per lot | \$15,520.00 |

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S94 Plan No. 22

Contribution to be credited against cost of works in condition 48 (i).

- i. Structured Open Space 97 lots @ \$640 per lot \$62,080.00

S94 Plan No. 19

The works required by Condition 26 shall be credited against this contribution for an approved amount based on estimates.

- j. Community Facilities: 97 lots @ \$497 per lot \$48,209.00

S94 Plan No. 19

28. In addition to the normal contribution required by S94 Plan No 16 - Emergency Facilities (Surf Lifesaving) an amount of \$55 per lot shall be paid towards the cost of providing Surf Lifesaving facilities within the area between Kingscliff and Cabarita (ie. 97 lots @ \$55 per lot = \$5,335).
29. A certificate of compliance (CC) under Part 3 Division 2 of the Water Supply Authorities Act 1987 is to be obtained from Council to verify that the necessary requirements for the supply of water and sewerage to the development have been made with the Tweed Shire Council.

Pursuant to Section 109J of the Environmental Planning and Assessment Act, 1979 a Subdivision Certificate shall NOT be issued by a Certifying Authority unless all Section 64 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" and a "Certificate of Compliance" signed by an authorised officer of Council.

Annexed hereto is an information sheet indicating the procedure to follow to obtain a Certificate of Compliance:

GST

If GST is applicable the following shall apply.

1.1 In this Clause 1:

"GST means any tax, impost or duty, including any goods and services, consumption, value added or similar tax applying on goods, services or other things introduced by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* and associated legislation (as amended), or under legislation passed by a State or Territory Parliament which is charged or levied on goods, services or other things.

- 1.2 Any monetary contributions and levies payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979 (NSW)* (as amended), and all other moneys payable by and on behalf of the applicant are exclusive of GST.

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- 1.3 Any non-monetary contribution or levy payable or imposed as a condition of this contributions plan pursuant to Section 94 of the *Environmental Planning and Assessment Act, 1979* (NSW) (as amended), including, but not limited to, the dedication or transfer of land to the Council or the transfer of some other asset to the Council, whether in tangible or intangible form, and all other non-monetary contributions payable by and on behalf of the applicant are also exclusive of GST.
- 1.4 Liability for GST (payable in respect of any taxable supply under this contributions plan whether monetary or non-monetary) is additional. It is payable by the applicant to the Council at the same time as all and any contributions, levies and other moneys are payable under this contributions plan and development consent.
- 1.5 In respect of any non-monetary contribution or levy referred to in clause 1.3 above, the GST payable shall be calculated as follows:

GST payable = The GST inclusive market price of the asset x $\frac{1}{11}$.

- 1.6 The Council will issue to the applicant, within twenty one (21) days of a request from the applicant, a tax invoice for the monies paid or the assets transferred by the applicant adjusted by the rate of the GST in accordance with the requirements of the relevant legislation.

Water:	97 lots @ \$3420 per lot	\$331,740.00
Local Section 64 Water Supply levy	97 lots @ \$205 per lot	\$19,885.00
Sewer:	97 lots @ \$2820 per lot	\$273,540.00

These charges to remain fixed for a period of twelve (12) months from the date of this consent and thereafter in accordance with the rates applicable in Council's adopted Fees and Charges current at the time of payment.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

FURTHER APPROVALS

30. Prior to commencement of work pursuant to this consent a Construction Certificate shall be obtained for the works proposed and required by this consent.

The following information must accompany applications for a construction certificate for subdivision work.

- (i) Subdivision Work

In the case of an application for a construction certificate for subdivision work required by this consent:

- a) copies of compliance certificates relied upon

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- b) four (4) copies of detailed engineering plans and specifications. The detailed plans shall include but are not limited to the following:
- earthworks
 - roadworks
 - road pavement
 - road furnishings
 - stormwater drainage
 - water supply works
 - sewerage works
 - landscaping works
 - sedimentation and erosion management plans
 - location of all service conduits (water, sewer, NorthPower and Telstra)
 - the approved Traffic Control Plan
 - the relevant maintenance manuals (eg. G.P.T's, water pump station)

Where the proposed subdivision work involves a modification to previously approved plans the plans must be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the modification.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

31. Subdivision work in accordance with a development consent must not be commenced until:-
- (a) a construction certificate for the subdivision work has been issued by:
 - (i) the consent authority, or
 - (ii) an accredited certifier, and
 - (b) the person having the benefit of the development consent:
 - (i) has appointed a principal certifying authority, and
 - (ii) has notified the consent authority and the council (if the council is not the consent authority) of the appointment, and
 - (c) the person having the benefit of the development consent has given at least 2 days' notice to the council of the person's intention to commence the subdivision work.

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32. Prior to the issue of a Construction Certificate, a cash bond or bank guarantee (unlimited in time) shall be lodged with Council for an amount of \$10,000.

The bond may be called up at any time and the funds used to rectify any non-compliance with the conditions of this consent which are not being addressed to the satisfaction of Council.

The bond will be refunded, if not expended, when the final Subdivision Certificate is issued.

33. Prior to registration of the plan of subdivision, a Subdivision Certificate shall be obtained.

(i) The following information must accompany an application:

- original plan of subdivision prepared by a registered surveyor and 7 copies of the original plan together with any applicable 88B Instrument and application fees of \$110 per lot - 101 lots @ \$110/lot = \$11,110.00.
- relevant development consent or complying development certificate
- detailed subdivision engineering plans endorsed with a construction certificate (where applicable)
- for a deferred commencement consent evidence that the applicant has satisfied the consent authority on all matters which must be satisfied before the consent can operate
- evidence that the applicant has complied with all conditions of consent, that it is required to comply with before a subdivision certificate can be issued (where applicable)
- a certificate of compliance from the relevant water supply authority (where applicable)
- if a subdivision is the subject of an order of the Land and Environment Court under section 40 of the Land and Environment Court Act 1979 evidence that required drainage easements have been acquired by the relevant council
- for subdivision involving subdivision works evidence that:
 - the work has been completed, or
 - agreement reached with the relevant consent authority regarding payment of the cost of work or as to the time for carrying out the work, or
 - security given to the consent authority with respect to the completion of the work
- Work as Executed Plans for ALL works

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- (ii) Documentary evidence that all matters contained in Section 109J of the Act have been complied with.
- (iii) Written evidence from Council that the proposed road/street names have been approved.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

34. Prior to the application for a Subdivision Certificate a Compliance Certificate or Certificates shall be obtained from Council OR an accredited certifier for the following:-

- (i) Compliance Certificate - Roads
- (ii) Compliance Certificate - Water Reticulation
- (iii) Compliance Certificate - Sewerage Reticulation
- (iv) Compliance Certificate - Sewerage Pump Station/vacuum pots
- (v) Compliance Certificate - Drainage

Note: 1. Where Council is requested to issue compliance certificates, applications for such certificates must be accompanied by documentary evidence from the Developers Supervising Consulting Engineer certifying that the specific work for which a certificate is sought has been completed in accordance with the terms of the development consent, the construction certificate, DCP16 - Subdivision Manual and good Engineering Practice.

2. Where Council is requested to issue the construction certificate all compliance certificates and a Subdivision Certificate, Council will carry out the following inspections as deemed necessary by Council based on the rates contained in Council's current Fees and Charges:-

Roadworks

- a. Pre-construction commencement erosion and sedimentation control measures
- b. Completion of earthworks
- c. Excavation of subgrade
- d. Pavement - sub-base
- e. Pavement - pre kerb
- f. Pavement - pre seal
- g. Pathways, footways, bikeways - formwork/reinforcement

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- h. Final inspections - on maintenance
- i. Off Maintenance inspection

Water Reticulation, Sewer Reticulation, Drainage

- a. Excavation
- b. Bedding
- c. Laying/jointing
- d. Manholes/pits
- e. Backfilling
- f. Permanent erosion and sedimentation control measures
- g. Drainage channels
- h. Final inspection - on maintenance
- i. Off maintenance

Sewer Pump Station

- a. Excavation
- b. Formwork/reinforcement
- c. Hydraulics
- d. Mechanical/electrical
- e. Commissioning - on maintenance
- f. Off maintenance

Council's role is limited to the above mandatory inspections and does NOT include supervision of the works, which is the responsibility of the Developers Supervising Consulting Engineer.

- 3. The EP&A Act, 1979 (as amended) makes no provision for works under the Water Supply Authorities Act, 1987 to be certified by an "accredited certifier".
- 35. Prior to the issue of a Subdivision Certificate, Works as Executed Plans shall be submitted in accordance with the provisions of DCP16 - Subdivisions Manual.

The plans are to be endorsed by a Registered Surveyor AND a Consulting Engineer Certifying that:

- (i) all drainage lines, sewer lines and structures are wholly contained within the drainage easement created by the subdivision;

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- (ii) the plans accurately reflect the Work as Executed.

Note: Where works are carried out by Council on behalf of the developer it is the responsibility of the DEVELOPER to prepare and submit works-as-executed plans.

36. Prior to the issue of a Subdivision Certificate a maintenance bond (in cash or unlimited time Bank Guarantee) shall be lodged with Council.

The bond shall be based on 5% of the value of the works which will be held by Council for a period of 6 months from the date on which the Subdivision Certificate is issued and will be refunded following the remedying of any defects arising within the 6 month period.

37. (i) PRIOR to lodging an application for a Subdivision Certificate, the applicant shall obtain the written approval of Council to the proposed road/street names. Approved names are to be in accordance with Council's Road Naming Policy adopted on 7 August 1996 and are to be shown on the Plan of Subdivision accompanying the application for a Subdivision Certificate.

- (ii) To avoid confusion resulting from duplication of private driveway/accessway name and public road/street names, the applicant shall submit to Council for approval the proposed name(s) of any private driveway/accessways.

The names shall be approved PRIOR to lodgement of any plan of subdivision in respect of the development.

Names which duplicate existing and approved street names will not be approved.

38. Before the commencement of the relevant stages of road construction, reports shall be submitted to Council from a Registered NATA Consultant demonstrating.

- a. That the pavement has been designed and constructed in accordance with subgrade analysis as per Austroads Pavement Design, A Guide to the Structural Design of Road Pavements.
- b. That the pavement materials used comply with the specifications in RTA Form 3051 (June 1998)
- c. That the pavement layers have been compacted to RTA specifications.
- d. That site fill areas have been compacted to the specified standard.
- e. That supervision of Bulk Earthworks has been to Level 1 and frequency of field density testing has been completed in accordance with Table 8.1 of AS 3798-1996.
- f. That pavement testing has been completed in accordance with Table 8.1 of AS 3798-1996.

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39. All lots must be graded and trimmed to prevent the ponding of surface water. Additionally, all lots must be adequately vegetated and action must be taken to prevent erosion from wind and/or water to the satisfaction of Council.
40. The Construction Certificate application shall include a provision for pavement design. The final design shall be approved by Council OR an accredited certifier prior to the placement of any road pavement material.

ROADS/STREETS

41. Provision of adequate vehicular access in accordance with Council's "Access to Property" pamphlet.
42. All proposed road/streets, drainage and associated works within the subdivision shall be designed and constructed in accordance with the development consent plans referred to in Condition 9 AND the relevant provision of DCP No. 16 - Subdivisions Manual, except where varied by the conditions of this consent.
43. The Engineering Plans and specifications to accompany the Construction Certificate application shall provide for:-
 - i. Construction of the roads in the subdivision shall be generally in accordance with Cardno MBK Figures E105 Rev A, E106 Rev A and E112 Rev B, except where varied by the table below, except where varied by these conditions.
 - ii. Road cross sections employing vertical face kerbing with a minimum of 1.2m abutting grass filter verge containing street lighting and street trees.
 - iii. A native tree planting schedule for each of the roads in the table below showing the location and species of each street tree, clear of driveways and sight lines.
 - iv. Notwithstanding Figure E120A Rev A the intermediate cul-de-sacs in Road No. 5 adjacent to Lots 87 and 86 shall be eliminated and Road No. 5 shall be permanently continuous.
 - v. A right turn lane (eastbound on Road No. 1) and median gap is to be constructed to service the access road to the sportsfield or alternatively a roundabout is to be constructed at the intersection of Road No. 1 and Road No. 2.
 - vi. The proposed public pathway from Road No. 2 and Road No. 4 and the public pathway from Road No. 4 to the beach (between lots 31/32) is to contain a constructed cycleway in accordance with condition 46(i).
 - vii. Proposed traffic calming devices must comply with the relevant Australian Standard and the NSW Roads and Traffic Authority technical direction for raised platforms. Detailed design plans shall be submitted with the construction certificate application.
 - viii. Drainage inlets are to be relocated to avoid conflict with pram ramps for cycleway/walkways.

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- ix. All cycleways/walkways shown on Statement of Environmental Effects Casuarina Beach Stage 4, December 1999 "Casuarina Beach Stage 4 Landscape Master Plan" are to be constructed in accordance with condition 46(i).

Bus shelters are required on Road No. 2 on the west side generally adjacent to Lot 100 and on the east side adjacent to Lot 101. The type and style of the bus shelters shall be approved by Council prior to installation.

- xi. Notwithstanding any steps within the Road Reserve boundary, the minimum road pavement and footway widths shall be maintained for the full length of all roads.

Figure	Number	Min. Road Reserve	Min. Carriageway Width	Min. Footway Width
E105 Rev A			2 x 5.5m plus 2.0m medium	3.5m (paved footways widths 1.5m north side and 2.5m south side)
E105 Rev A; E106 Rev A	2	20	11.0	4.5m (paved footway width 1.2m both sides)
E105 Rev A	3 & 4	14	7.5	3.25m (single paved footway width 1.2m)
E106 Rev A	5 (east west section)	20.0	centreline to south 11.6m and centreline to north 3.75m	3.25m (single paved footway width 1.2m)
E106 Rev A	5 (north south section)	14	7.5	3.25m (single paved footway width 1.2m)

44. The intersection of Road No. 1 and the new Coast Road shall be constructed to a Type C standard including channelisation, line marking and street lighting in accordance with Austroads Part 5, 'Intersections at Grade'.
45. All permanent cul-de-sacs shall be constructed with kerb radius of 9.0m and a minimum footway width of 3.0m.
46. i. All cycleway, walkways and coastal walkway/cycleways shall be designed in accordance with Austroads Guide to Traffic Engineering Practice Part 14 and AMCORD provisions for single and shared footway/cycleway (Element 1.4 and PND17), and construction in accordance with engineering plans and specifications which accompany the construction certificate application which shall be approved by the Director, Development Services.
- ii. Pursuant to Section 94 Plan No. 19 and Condition 39(a)-(e) of Development Consent S96/135 issued by the Land and Environment Court on 16 December, 1998, the applicant shall construct all cycleways, walkways and coastal

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walkways/cycleways applicable to Stage 4 as shown on Map 5 contained within Section 94 Plan No. 19.

- iii. Alternatively, the developer may, in the case of residential frontage footpaths, pay a cash contribution to the value of the works plus 25% in lieu of construction and Council will construct the footpath when the subdivision is substantially built out. The cost of these works shall be validated by a schedule of rates.
 - iv. If the developer elects to construct the footpath prior to the issue of a Subdivision Certificate, a cash maintenance bond equal to 25% of the contract value of the footpath shall be lodged for a period of 3 years or until 80% of the lots fronting paved footpaths are built on. The maintenance bond shall be lodged prior to release of the subdivision certificate.
47. Pram ramps are to be constructed at road intersections in accordance with Council's Plan No. A4-96 to the satisfaction of Council.

DRAINAGE/FLOODING

48. All fill of new residential lots is to be graded at 1% so that it drains to the street or other approved permanent drainage system and where necessary, perimeter drainage is to be provided to ensure minimal impact on adjoining properties. If filling is required, a plan of proposed drainage is to be submitted with the Construction Certificate application.
49. On completion of the filling work, all topsoil to be respread and the site to be grassed and landscaped with the exception of infiltration basins.
50. All roofwater from dwellings shall be discharged to infiltration pits located on each subject allotment. The design of the infiltration pits shall be submitted with the Application for the dwelling and approved by the Certifying Authority.
51. All proposed building pads are to be above the Q100 design flood level, including provision for any localised overland flow, such that at least 300mm freeboard is provided to the satisfaction of the Director Development Services.
52. The earthworks shall be carried out in accordance with AS 3798-1996, "Guidelines on Earthworks for Commercial and Residential Developments". In general, material shall be placed in layers not exceeding 300mm in depth, watered and compacted to achieve the specified density ratio as monitored in Table 5.1 - Guidelines for Minimum Relative Compaction.
53. The earthworks program shall be monitored by a Registered Geotechnical Testing Consultant to a level 1 standard in accordance with Appendix 6, AS 3798-1996. In addition, the frequency of field density testing shall be to a Type 1 standard in accordance with Table 8.1 of AS 3798-1996. The geotechnical report shall be accompanied by a certificate from a registered Geotechnical Engineer certifying that the filling operations comply with AS3798-1996.

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54. Prior to final acceptance of the Stormwater system and release of the maintenance bond a CCTV inspection of the stormwater pipes will be required to demonstrate that the standard of the stormwater system is acceptable to Council.

All costs associated with the CCTV inspection and repairs shall be borne by the applicants.

55. The east/west drain located within lot 101 and between Lot 101 and controlled outlet No. 7 shall be piped or other approved conveyance system provided to a standard that satisfies the landform requirements of Council which will be to ensure the satisfactory usage of the public open space through which the drain traverses. All inlet structures within Lot 101 are to be located so that the usage of the open space is also not adversely compromised.

56. All stormwater discharged from the site including dewatering discharge is to be directed to a sediment pond/infiltration basins prior to final discharge into any waterway. The sediment ponds or other approved devices are to be maintained in good condition until the maintenance bond is released.

57. Regular inspections shall be carried out by the Supervising Engineer on site to ensure that adequate erosion control measures are in place and in good condition both during and after construction.

Additional inspections are also required by the Supervising Engineer after each storm event to assess the adequacy of the erosion control measures, make good any erosion control devices and clean up any sediment that has left the site or is deposited on public land or in waterways.

This inspection program is to be maintained until the maintenance bond is released or until Council is satisfied that the site is fully rehabilitated.

58. For the purpose of this condition “trunk drainage” shall be defined as the north and south flowing drains along the coastal frontage of the subject land and the continuation of these drains after their junction, downstream to Controlled Outlet No. 7 as generally located on Cardno MBK Figure E116 Rev B.

The ultimate point of discharge for this development shall be Controlled Outlet No. 7.

Trunk drainage shall be designed to convey Q_{100} stormwater discharge. The trunk drainage shall be constructed and the land (containing the drain) dedicated to Council.

The trunk drainage along the coastal boundary, and elsewhere, shall be designed to accommodate Q_{100} (no infiltration) flows with a minimum 300mm freeboard. Separate approval is required for any drainage along the coastal boundary with Lot 500 that requires filling or any other ancillary works on adjacent land. This work will also require approval from the Reserves Trust.

Where consistent with other land use requirements, grassed swale drainage is to be used in preference to pipes or hard lined channels. In designated public open space areas,

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open drains will only be permitted if the resultant landform is satisfactory to Council for open space purposes.

The underground drainage in Road No. 2 south of Road No. 1 shall be reconfigured to eliminate the outlet adjacent to proposed lot 9 and the outlet shall be redirected to discharge into the trunk drain adjacent to Road No. 1 or alternatively the drainage system is to be amended to ensure drainage flows do not compromise the usage of open space lot 9.

The underground drainage on proposed roads No. 1 and No. 2 and their discharge locations to the trunk drainage system are to be reconfigured, if necessary, to ensure runoff (from road No. 1 and No. 2 catchments) passes through infiltration basins of appropriate size prior to ultimate discharge to Controlled Outlet No. 7.

59. (a) Except for proposed lot 101 and proposed lot 100, Residue Lots 54 & 99, the land shall be shaped in general accordance with Cardno MBK Figure E108 and as limited by Figure E128 REV B "Bulk Earthworks" and:
- Where the proposed levels are inconsistent with existing levels on adjacent land, retaining walls (and any necessary ancillary or drainage works) shall be provided on the lot boundaries to ensure the land shaping has no adverse affect on adjoining land. Plans and specifications of the retaining walls and ancillary works and the written approval of the adjacent landowner shall be submitted with the construction certificate application.*
 - Provision shall be made to ensure surface runoff does not discharge onto adjoining land
 - Provision shall be made to accept up to Q100 surface runoff from adjacent land that discharges onto the subject land .
- * As an alternative, the applicant may submit a proposal with the construction certificate application for simultaneous reshaping of both the subject land and adjacent land. Such a proposal must be authorised by all affected land owners and indemnify Council from any action resulting from the execution of the proposal or any landforming activity that may adversely affect adjoining land.
- (b) Proposed Lot 101 and Lot 100 shall be shaped to a landform that is consistent with their open space objectives and a landform that is satisfactory to Council for open space purposes.
60. This condition refers to proposed Lots 54, 55, 56 and 99.

Prior to release of any subdivision certificate:

- These lots shall be provided with interim and ultimate drainage inlets on the lots or at lot boundaries. The interim period is defined as that time between the creation of the lot and the development of the lots. The lots shall be shaped to

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ensure all interim Q5 concentrated drainage and surface runoff from slopes longer than 40m is discharged to these inlets. Provision shall be made outside the lots for acceptance and transport of ultimate and interim Q100 flows from the lots.

- Where infrastructure required to serve a management lot, passes through another lot, easements in favour of Council shall be granted over the infrastructure and necessary access roads to such infrastructure.

The following only refers to proposed lots 55 and 56.

Prior to release of any subdivision certificate:

- Sufficient permanent infrastructure must be constructed in the subdivision that creates these lots so that they may be capable of being developed to their ultimate capacity by subsequent applicants without any requirements for provision or augmentation of external infrastructure. All proposed infrastructure that crosses the boundaries of these lots or runs adjacent to their boundaries must be constructed in the subdivision that creates the lots.
- Bulk earthworks over the site shall be completed sufficient to ensure that road levels are fixed, the drainage system is established and the lot boundaries are at their final level

61. Permanent Stormwater Quality Treatment

(a) Stormwater Quality Objectives

Permanent stormwater quality treatment shall comply with “*Tweed Urban Stormwater Quality Management Plan*” (adopted by Council 19 April 2000) section 5.5.3 “Stormwater Objectives During the Post Construction or Occupational Phase of Development”. New development is required to comply with table 5.4 and demonstrate compliance by modelling in accordance with section 5.5.4 of the Plan:

Section 5.5.5 of the plan further advises that treatment that is in accordance with the “deemed to comply” provisions of *Appendix E - Tweed Shire Council, Aus-Spec D7 - Stormwater Quality* is deemed to comply with the objectives in 5.5.3”.

“Table 5.4 Stormwater Treatment Objectives for Post Construction (Occupational) Phase of Development

<i>Pollutant</i>			
<i>Nutrients</i>	<i>Maximum permissible load that may be discharged kg/ha/year</i>		
	<i>Average year (1719mm)</i>	<i>Wet Year (2185mm)</i>	<i>Dry Year (929mm)</i>
<i>Suspended solids (SS)</i>	<i>300</i>	<i>400</i>	<i>120</i>

Reports from Director Development Services

<i>Total Phosphorus (TP)</i>	<i>0.8</i>	<i>1.1</i>	<i>0.35</i>
<i>Total Nitrogen (TN)</i>	<i>4.5</i>	<i>6</i>	<i>1.5</i>
<i>Litter</i>	<i>Retention 70% of annual litter load greater than 5mm</i>		
<i>Coarse sediment</i>	<i>Retention of 90% of annual load of sediment coarser than 0.125 mm</i>		
<i>Oil and grease (hydrocarbons)</i>	<i><10 mg/litre in flows up to 40% of Q1 peak."</i>		

Note: The Water Quality Management and Monitoring Program contained in Cardno MBK letter of 21 February 2000 containing proposals for Water Quality Management generally achieves the above objectives.

(b) Water Sensitive Design

Water sensitive design practices shall be adopted. Where it is practical, water quality features are to be designed into the land development site rather than rely on special end of pipe devices to strip pollutants and nutrients from stormwater prior to discharge. Typical water quality features that can be designed into the site development include use of porous pavements, directing runoff over filter strips or grass swales in landscaped areas, utilising landscaping as an integral part of stormwater quality management, maximising use of infiltration and stormwater reuse. These features can be complemented by site management practices which minimise creation of stormwater pollutants and nutrients and provide for appropriate operation, cleaning and maintenance of water quality control devices.

(c) Infiltration

- i. Infiltration areas are to be sized with a safety factor of 2 (this is to allow for long term deterioration in infiltration rate).
- ii. Runoff entering infiltration trenches/basins shall be pretreated to remove sediment and gross pollutants.
- iii. The infiltration rate for infiltration devices shall be determined as follows:
 - Conduct percolation tests on the site in accordance with Appendix B of A.S. 1547-1994. Disposal Systems for Effluent from Domestic Premises.
 - If the above calculation yields a result <6m/day, this rate may be used for design.
 - If the result is >6m/day, the rate for design may not exceed 6m/day unless this rate is confirmed by independently determining the coefficient of permeability of the soil in accordance with AS 1289.6.7.3.

Reports from Director Development Services

Notwithstanding these tests, the maximum infiltration rate that may be used for design and sizing purposes is 12m/day

(d) Specific Requirements

Permanent stormwater quality devices are to be designed in accordance with these conditions and “Tweed Urban Stormwater Quality Management Plan” Appendix E – Tweed Shire Council, Aus-pec D7 – Stormwater Quality, and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate Application.

Unless stated otherwise, references in brackets refer to sections on devices in NSW EPA publication “Managing Urban Stormwater - Treatment Techniques, November 1997”.

- Roof drainage. All future roof drainage is to be discharged to infiltration trenches located on each contributing allotment or on other land appropriately title burdened to the contributing allotment. Infiltration trenches shall be designed in accordance with the following criteria:
 - As a minimum requirement, trenches are to be sized to accommodate the ARI 3 month storm (deemed to be 40% of the ARI one year event) and infiltrate this storm within a 24 hour period, with a safety factor of 2, before surcharging occurs
 - Surcharge overflow from the infiltration area to the street gutter, interallotment or public drainage system must occur by visible surface flow.
 - Runoff is to be pre treated to remove contaminants prior to entry into the absorption areas (to maximise life of absorption areas between major cleaning/maintenance overhauls).
 - If the site is under strata or community title, the strata/community title plan is to ensure that the absorption areas are contained within common areas that remain the responsibility of the body corporate (to ensure continued collective responsibility for site drainage).
- Where consistent with other land use requirements, grassed swale drainage (Ref 5.2) is to be used in preference to pipes or hard lined channels.

Note: Swales are not preferred as a substitute for kerb and gutter

 - *where on street parking is required, unless cars can be excluded from swale area*
 - *on roads serving small lots with numerous driveways*
 - *where gradients are <1% or >5%)*
- Oil/Grit Separators (ref 4.7), permanent pool 30m³ per impervious hectare, with 50-70% of this volume in first chamber (or equivalent devices approved by Council) are

Reports from Director Development Services

to be provided in the underground road/hardstand stormwater drainage systems to remove sediment, litter and oil/grease prior to discharge onto the coastal drain/infiltration area or the trunk drainage system, ie. at the following locations: -

- East side of proposed Road No. 5 between lots 31/32 and north of lot 39
 - On the downstream underground drainage on part of proposed lot 101 between proposed lots 24/25
 - East side of proposed road No. 5 between proposed lots 76/75
 - On the downstream underground drainage on part of proposed lot 101 between proposed lots 87/86
 - On the downstream end of drainage systems in Road No. 2 and Road No. 1 prior to discharge into the trunk drainage system
- Infiltration basins (ref 5.6) shall be provided prior to Controlled Outlet No 7, to infiltrate runoff from all contributing stormwater for flows of up to 40% of ultimate $Q_{1 \text{ year}}$. Infiltration basin sizing shall be determined on a catchment basis. For the purpose of this consent a "catchment" shall be the total area draining controlled outlet No. 11. The infiltration basins shall be contained within reserves to be dedicated to Council. The basins may only be contained within designated public open space areas, if the resultant landform is satisfactory to Council. Infiltration basins are to consist of raw dune sand with an minimal vegetation cover of endemic dune grasses. No topsoil, mulch or other vegetative matter is to be used on infiltration basin surfaces and no establishment, operation or maintenance procedures are permitted that may reduce surface permeability.

SERVICES

Sewer

62. The applicant shall lodge detailed engineering plans with the construction certificate application for the Sewerage Reticulation and Pumping System.
63. i. Prior to issuing a Subdivision Certificate, outfall sewerage reticulation shall be provided to all lots within the subdivision including a minimum 150mm diameter sewer junction terminated at least 1.0m inside the property boundary of each lot in accordance with engineering plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

Council does not permit the building over Council's sewers. When buildings are located in close proximity to the sewer, detailed plans of footing types, location and depth relative to the sewer are required to be included with the Construction Certificate Application.

- ii. Any Sewerage Works required by the Stage 1 Consent S96/135 which have been bonded shall be completed to the satisfaction of the Director of Engineering Services PRIOR to release of the linen plan.

Reports from Director Development Services

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Water

64. Prior to issuing a Subdivision Certificate, Town Water shall be provided to each lot including a minimum size 25mm outside diameter water service terminated 1.0m inside the property boundary of each lot in accordance engineering with plans to accompany the Construction Certificate application. The reticulation shall be designed and constructed in accordance with DCP16 - Subdivisions Manual.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Telephone

65. The production of written evidence from Telstra Australia certifying that satisfactory arrangements have been made for the provision of underground telephone supply, prior to issue of a Subdivision Certificate.

Electricity

66. i. The production of written evidence from NorthPower certifying that reticulation of underground electricity has been completed; and
- ii. Prior to the issue of a Subdivision Certificate, the reticulation to include the provision of fully installed electric street and parkland pathway lights to the relevant Australian standard. Such lights to be capable of being energised following a formal request by Council, the proposed location and style of lighting standards (clear of other public utilities, private accesses and street trees) to be submitted with the Construction Certificate Application.

ENVIRONMENT PROTECTION

67. Suitable covering and protection is to be provided to ensure that no material is removed from the site by wind, causing nuisance to neighbouring properties.
68. All battered areas are to be topsoiled and grassed, or other suitable protection provided as soon as filling is placed adjacent to neighbouring properties.
69. All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.
70. The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.
71. Where earthworks result in the creation of embankments and/or cuttings greater than 1m high and/or slopes within allotments 17⁰ or steeper, such slopes shall be densely planted

Reports from Director Development Services

in accordance with a detailed landscaping plan. Such plan to accompany the Construction Certificate application.

Such plans shall generally incorporate the following and preferably be prepared by a landscape architect:

- i) Contours and terraces where the height exceeds 1m.
 - ii) Cover with topsoil and large rocks/dry stone walls in terraces as necessary.
 - iii) Densely plant with sub-tropical (rainforest) native and native species to suit the aspect/micro climate. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.
 - iv) Mulch heavily (minimum 300mm thick) preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.
 - v) The landscaping shall be completed to the satisfaction of the Director Development Services PRIOR to the issue of a Subdivision Certificate.
 - vi) A bond shall be lodged prior to the issue of the subdivision certificate to ensure that the landscaping is maintained by the developer for a period of 6 months from the date of issue of a Subdivision Certificate. The amount of the bond shall be 20% of the estimated cost of the landscaping or \$3000 whichever is the greater.
72. All necessary precautions shall be taken to minimise impact from dust during filling operations from the site and also from construction vehicles.
73. The burning off of trees and associated vegetation felled by clearing operations is not permitted unless such burning is carried out in a specially constructed pit provided with an air curtain over the top. Separate approval is required prior to any burning.
74. Construction site work including the entering and leaving of vehicles is to be restricted to between 7.00 am and 7.00 pm Monday to Saturday and no work on Sundays.
75. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:
- A. Short Term Period - 4 weeks.
L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.
 - B. Long term period - the duration.
L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.

Reports from Director Development Services

76. The following restrictions apply to dog and cat ownership and control on all residential lots:-
- i. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and the ownership of cats within the development shall be restricted to one de-sexed cat per allotment and such cats shall be restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.
 - ii. No dog shall be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.
 - iii. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.

These ownership and control requirements shall be reinforced by a Restrictions as to User under Section 88B of the Conveyancing Act, 1919-1964.

A Section 88B Instrument creating the restriction as to user shall contain a provision enabling the restriction to be revoked, varied or modified only with the consent of Council.

77. All stormwater gully lintels shall have the following notice cast into the top of the lintel: 'DUMP NO RUBBISH, FLOWS INTO CREEK' or similar wording to the satisfaction of Council.
78. The use of vibratory compaction equipment (other than hand held devices) within 100m of any dwelling house is strictly prohibited.
79. i. Submission and approval of a separate development application for those works to be undertaken in accordance with the Dune Management Plan and Lot 500 Management Plan required by Consent S96/135 issued by the Land and Environment Court on 10 December, 1998.
- ii. The Dune Management Plan and Lot 500 Management Plan shall be implemented in accordance with any development consent obtained pursuant to Condition 80(i) to the satisfaction of Council.
80. The Water Quality Monitoring and Management Program prepared by Cardno MBK dated 1 February 2000 is to be implemented and be amended to include that an additional 3 groundwater monitoring points.
- In addition, the water quality objectives table is to be amended to include an objective for groundwater level alteration. These details are to be submitted to the satisfaction of Council prior to the commencement of works. Any alteration to this will need to be to the satisfaction of Council.
81. The Acid Sulfate Soils Management Plan prepared by Cardno MBK dated 1 February 2000 is to be implemented for the duration of the works.

Reports from Director Development Services

Page 8 of the “Reporting” section 13 to be amended to include “Council will be informed within 7 days of any non-compliant results, particularly in relation to exceedances of the nominated range for each water quality parameter.”

The details are to be submitted to the satisfaction of Council prior to works commencing.

82. In accordance with Condition 34 of Consent S96/135 for Stage 1, prior to issuing a Construction Certificate for development of any management lot, all existing bitou bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof.
83. Construction phase stormwater quality treatment (erosion and sediment control) shall be designed and constructed in accordance with detailed engineering plans to be submitted and approved with the Construction Certificate.

Erosion and sediment control shall be in accordance with the “*Tweed Urban Stormwater Quality Management Plan*” (adopted by Council 19 April 2000) section 5.5.2 “Stormwater Objectives During the Construction Phase of New Development”. This section requires all new development to comply with Appendix E of the Plan “*Tweed Shire Council Aus-Spec D7 - Stormwater Quality*” and its Annexure A - “Code of Practice for Soil and Water Management on Construction Works”. Erosion and Sediment controls shall remain in place until final approval is given and the maintenance bond has been released.

84. PRIOR to any work commencing pursuant to this consent, a suitable fence shall be erected on the alignment of the eastern extremity of the approved work to ensure that no unauthorised works or disturbance occur within Lot 500.
85. In accordance with the provisions of condition 41(d) of Consent S96/135 for Stage 1 and as required by the National Parks and Wildlife Service in their letter dated 24 May, 2000, the following requirements shall be complied with:-
 - i. Drainage swales/open space corridors rising east/west shall be replanted with suitable indigenous vegetation sourced locally to assist the east/west dispersal of wildlife.
 - ii. A minimum of 300 Banksias are to be planted in each development lot in areas of public and private open space. These trees may include large (greater than 10cm DBH) individuals translocated from areas where their clearing is essential for the development design. These trees should be located in clumps and as far away from urban areas and lighting as possible.
 - iii. All large mature Banksias, up to a maximum of 30 per lot, in public or private open space, drainage swales etc, are to be marked and retained unless their removal is approved by Council in order to satisfy its requirements for open space and/or the proponents design of the development. Where such a tree is removed, it shall be replaced by a tree of similar size, taken from an area where it would otherwise be lost, and translocated into an unconstrained area of the lot.

Reports from Director Development Services

- iv. The proponent shall monitor and maintain as necessary any translocated trees for a period of one year from the date of consent in order to promote their survival.
 - v. In respect of the north-western area, as identified in the Gunninah report, clearing is to be deferred for a period of four years from 1 June 1999, or an alternative biological timeframe to be agreed between the applicant, NPWS and Tweed Shire Council.
 - vi. In respect of the commercial area, clearing may commence within four years in accordance with an agreed biological timeframe provided that adequate mitigation measures can be demonstrated to NPWS and Tweed Shire Council.
86. Compliance with the conditions imposed by the Department of Urban Affairs and Planning in granting concurrence to development in the 7(f) zone as follows:-
- a. No residential or associated buildings being erected on land zoned 7(f);
 - b. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;
 - c. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and
 - d. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.

Reports from Director Development Services

REPORT:

Council has received a development application (K99/1732) for the subdivision of the subject land into 101 lots which consists of 95 residential lots, 4 residue lots and 1 open space lot. The subdivision is known as Stage 4 of Casuarina Beach Development. The subdivision is proposed on land described as Management Lots 3, 4, 9 and Part 13 as approved for Stage 1. This land is located in the middle section of the Casuarina Beach site. A flora and assessment accompanies this application. The application seeks consent to subdivide the residential and part of the environmental protection (coastal lands) zoned land on the site. The site was zoned Residential/Tourist in 1989 for urban development following the preparation of the South Kingscliff Study.

The following is a history of development consents relating to the entire Kings Beach site.

- On 16 December, 1998 the Land and Environment Court issued development consent S96/135 for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. The construction of the new Coast Road is now completed. However, compliance with all conditions of this consent has not been completed and the linen plan has not been submitted. In addition, a Section 96(2) application has been submitted to modify this consent. This has not been determined by the Land and Environment Court.

It is considered that all relevant conditions of development consent S96/135 have been satisfied or can otherwise be addressed by the recommended conditions.

- On 6 December, 1999 Council received development application K99/1733 for the subdivision of management lots 5 and 7 and parts of 13 and 14 into 86 lots at the Kings Beach site. This is otherwise known as Stage 3 of the development of the Kings Beach site. This application is the subject of a separate report.
- On 6 September, 1999, Council received development application K99/1360 for the subdivision of management lots 1, 2, 12 and part of Lots 3, 9 and 13 into 82 lots at the Kings Beach site. This is otherwise known as Stage 2 of the development consent of the Kings Beach site. This application is the subject of a separate report.
- The applicant's have lodged a deemed refusal appeal for each of the applications (Stages 2, 3 and 4) with the Land and Environment Court.

Consent S96/135 (Stage 1)

As previously discussed the Land and Environment Court issued consent for the subdivision of the subject land into 14 lots and the carrying out of Stage 1 works. Compliance with all the conditions of this consent has not been completed and the final linen plan (Subdivision Certificate Application) has not been submitted.

Conditions of consent S96/135 which affect this application are discussed below:-

“A (i) *The subdivision of the land into 14 lots as shown generally on the Subdivision Plan*”.

Reports from Director Development Services

Comment:

The application is generally consistent with the Subdivision Plan.

“A (iii) *The development of the management lots for the purposes of low and medium density residential, retail, commercial and tourist development together with associated and related uses and facilities generally in accordance with the Development Plan*”.

Comment:

The Stage 2 Development Master Plan is not the same as the Development Plan but is considered to be “generally in accordance” with same.

The Kings Beach Concept Master Plan submitted with the development application is not the same as the Development Plan approved by the Court. The Kings Beach Concept Master Plan includes the former Narui Coastal Site and accordingly, it is considered that the Stage 1 consent should be modified to include the Kings Beach Master Plan in lieu of the Development Plan.

“1. *The total population yield from the development of the Management Lots in accordance with the further development consents referred to in Condition 2 shall be based upon the following estimates:*

<i>Lots</i>	<i>Population</i>
<i>1</i>	<i>550</i>
<i>2</i>	<i>620</i>
<i>3</i>	<i>1100</i>
<i>4</i>	<i>700</i>
<i>5</i>	<i>1520</i>
<i>6</i>	<i>400</i>
<i>7</i>	<i>710</i>
<i>Total</i>	<i>5600</i>

Comment:

This application does not achieve the population yields for lots 3 and 4. The estimated population yields in the Stage 1 consent for management lots 3 and 4 is 1,800 persons. The application indicates the population yield for lots 3 and 4 at 1684 persons, which is well below the estimate of 1,800. (See section (iii) of this report under DCP11 - Kings Beach for further comments on this issue). The DCP11 and Section 94 Plan No. 19 should be amended to reflect the above figures in the event that Council approves the development application.

“3. *The development shall be carried out generally in accordance with the Development Plan, except where varied by these conditions*”.

Reports from Director Development Services

Comment:

See A(i) above.

“18 (iv) A report detailing water sampling results from the surface water and groundwater monitoring programs shall be submitted to Council prior to the commencement of any new stage of the development, including details of any relevant previous failure to meet water quality discharge objectives or standards. The report shall include a recommendation as to any proposed amelioration works required to be implemented to rectify the said failures and shall further include an indication as to whether the development may satisfactorily proceed.”

Comment:

A Water Quality Monitoring and Management Program has been submitted for this application and is to the satisfaction of the Environment and community Services Division.

“32. The following controls shall apply to dog and cat ownership and a restriction as to user shall be created on the Management Lots under Section 88B of the Conveyancing Act, 1919-1964 in the following terms:

- i. No property owner shall have more than one dog or one de-sexed cat;*
- ii. Owners of dogs within the development shall have their yards fenced so as to securely contain a maximum of one (1) dog per allotment and that any owners of cats within the development be restricted to one de-sexed cat per allotment and to have their cats restrained within the house or a secure night cage between the hours of 6.00pm and 6.00am.*
- iii. No dog to be registered without the construction of a dog-proof compound which must be approved by Council and the relevant fee paid by the applicant.*
- iv. No owner can retrieve a dog that has been impounded unless they can demonstrate to Council they have a secure compound.*

This section 88B Instrument shall make provision for amendment, revocation or variation of restriction required by this conditions only with the approval of Council as the authorised authority.”

Comment:

This condition should be imposed on any consent for this application.

“34 Prior to issuing a construction certificate for future development of any Management Lot, all existing Bitou bush plants shall be removed from that lot and the resultant disturbed areas shall be treated to suppress dust nuisance and soil erosion pending any development thereof”.

Comment:

Reports from Director Development Services

This condition should be imposed on any consent for this application.

“35. A Dune Management Plan shall be prepared to the satisfaction of the Director of Development Services in respect of the Fore-dune lands adjoining the Land and be submitted in conjunction with the Part XII Engineering Plans”.

Comment

A Dune Management Plan has been submitted and approved by Council but not the Department of Land and Water Conservation.

The applicant and Lenen Pty Ltd have prepared an amended Dune Management Plan for the approval of Council’s Director of Development Services and DLWC. This Plan has been submitted to DLWC for comment and is subject of reports to the Council and Reserves Trust meetings of 24 May.

In addition, development consent is required for the works proposed in the Dune Management Plan. The applicant has been requested to submit a development application for this work to enable both applications to be assessed and determined on an integrated basis. To date, no application has been received for the works proposed by the Dune Management Plan. It is therefore considered that any consent should be conditioned to require submission of this development application.

“38. The land shown on the Subdivision Plan as Lots 8, 9, 10, 11, 12, 13 and 14 shall be dedicated to the Council as public open space at no cost in conjunction with registration of the linen plan of subdivision creating the allotments”.

Comment:

These lots have not been dedicated to date, however a condition is recommended requiring dedication prior to the issue of a Construction Certificate.

“39a The proposed regional coastal walkway/cycleway within Land zoned 7(f) as shown on the Development Plan shall be constructed generally in accordance with detailed engineering plans to be submitted prior to the release of the Stage 1 linen plans of subdivision and approved prior to work on the said walkway/cycleway commencing”.

Comment:

The coastal walkway/cycleway shown on the application plans appears to be generally consistent with the Stage 1 Development Plan. The Stage 1 linen plan has not been submitted and final engineering plans for the cycleway/walkway have not been submitted. However, this does not preclude approval of this development application subject to appropriate conditions.

39b Construction of each section of walkway/cycleway immediately east of any management lot shall be completed prior to the release of the linen plan for future subdivision of the respective management lot”.

Comment:

This condition should be imposed on any consent.

Reports from Director Development Services

“39c Notwithstanding the previous paragraph the walkway/cycleway adjacent to Lots 1, 2, 3, 4, 5, and 7 must be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1 or the re-subdivision of the management lots or immediately following construction of the cycleway/walkway from Cudgen Headland to the northern boundary of the land, whichever occurs first”.

Comment:

This will be included as a condition on any consent for this application.

“39e The design of the walkway shall be integrated with any adjacent proposed car parking areas and beach access points and shall extend for the full frontage of the land including, where necessary, within the Crown Foreshore Reserve subject to the written approval of the Reserves Trust”.

Comment:

Any consent will be conditioned appropriately.

“39f The application and/or owner shall prepare and submit a plan for the approval of the Director of Development Services within 6 months of the release of the linen plan for Stage 1 for the embellishment works on Lots 12, 13 and 14 and such plan shall provide for:

- (i) removal of bitou bush and other noxious weeds.*
- (ii) rehabilitation of the area consistent with the Dune Management Plan referred to in Condition 35 of the Consent Orders and good practice in this regard.*
- (iii) provision of adequate and appropriate security lighting for users of Lots 12, 13 and 14.*
- (iv) provision of suitable related day visitor facilities, generally consistent with drawings contained in Appendix E to the statement of Environment Effects”.*

“39g (i) A schedule for the implementation of the embellishment works including the relationship between the works set out in f(iii) and (iv) to the development of any management lots shall be submitted and approved by the Director, Development Services as part of the plan referred to in Condition 39(f).

- (ii) The embellishment works required by Conditions 39(f)(i-iv) shall be completed within four (4) years of the release by Council of the linen plan of subdivision for Stage 1.*
- (iii) If the walkway/cycleway or any part thereof is constructed in accordance with Condition 39(b) then the embellishment works referred to in this condition or in Condition 39(f)(i-iv) shall be carried out concurrently in respect of Lots 12, 13 and 14 in which the walkway/cycleway is constructed.*
- (iv) If at the time of sale by Lenen Pty Ltd of any of lots 1 to 5 and 7 and the embellishment works referred to in Condition 39(f)(i-v) have not been*

Reports from Director Development Services

completed in Lots 12, 13 and 14 as those lots are immediately east of the management lot as then sold the applicant shall provide in respect of those embellishment works a bond equivalent to the cost of those works plus 20%”.

Comments:

It is considered that the requirements of conditions 39(f) and 39(g) can be adequately conditioned on any consent for this application.

“41(a) Any development application with respect to any of the Management Lots shall provide for the planting of not fewer than the number of Banksia integrifolia shown in the Table hereunder against each such lot and totalling not less than 5400 stems provided that those numbers shall be reduced so that they total the difference between 14000 and the total number of stems planted pursuant to condition 40 (where they total more than 8600).

To avoid the potential for a Banksia monoculture, the numbers of Banksias proposed for replanting shall include a proportion of other relevant flowering native species depending on the location for replanting. These other relevant species shall be of a type that provides a food source for the Queensland Blossom Bat. Approximately 20% of the planting shall comprise other relevant flowering species.

Lot No	Compensatory Planting (stem numbers)
1	690
2	382
3	1256
4	1232
5	1435
6	49*
7	356
Total	5400

Comments:

An extract from the report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates is provided as follows:

“Stage 1 Consent condition 41(a) notes that a development application with regard to any of the Management lots shall provide for the planting of not fewer than the number of Banksia shown in the table hereunder against each lot.

Table 11

Mitigation Required as per Stage 1 Consent

Lot No.	Compensatory Planting

Reports from Director Development Services

1	690
2	382
3	1256
4	1232
5	1435
6	49
7	356
Total	5400

The combined total for the Study site is 1072 Banksia trees. As the development of the Study site will not result in the Blossom Bat population being in energy deficit, it is considered that these plantings are not critical. However, 15000 trees have been planted nearby which more than compensated for losses in the Study site.

15000 trees have been planted in accordance with the Vegetation Management Plan. Plantings have predominantly been undertaken on Management Lot 8 (west of the new Coast Road) and the Richtech land in the areas defined in the Amelioration plan”.

Based on advice from the NPWS, this condition has been complied with. See further comments in relation to Condition 41(d), 46 and 47.

“41(b) Any such planting shall be carried out before the linen plan of subdivision of any such Management Lot is released.

Total of 1 and 2 = 1072

Total of 6 and 7 = 405”

Comment:

See comments relating to condition 41(a) above.

“41(c) The Applicant shall within 6 months of the date of this consent provide to the Council and the National Parks and Wildlife Service an estimate of the number of productive inflorescences that are within the site of the relocated Coast Road and the Management Lots at that time.”

“41(d) Where an application is made for consent to the development of a Management Lot within 8 years of the completion of the planting referred to in Condition 40, the applicant for such consent shall be required, prior to such a consent being granted, to satisfy the National Parks and Wildlife Service that the removal of any Queensland Blossom Bat foraging resource from that Management Lot

Reports from Director Development Services

will not unduly reduce the total productive inflorescences referred to in (c) above or that such removal may proceed notwithstanding any such reduction”

Comment:

A report on the “Impact on Common Blossom Bat Habitat for Stage 2 Development” prepared by James Warren and Associates Pty Ltd dated September 1999, accompanies the application. This report has been sent to the National Parks and Wildlife Services and a copy of their response dated 16 May, 2000 is attached. In summary, the NPWS has approved the selective removal of habitat in Stages 2, 3 and 4 in accordance with condition 41(d), subject to further conditions which are included in the recommendation.

Lenen has lodged a Section 96 application with the Land and Environment Court to modify Condition 41(d) of the Stage 1 consent as follows:-

1. Delete condition 41(d) and insert instead the following condition:-

“Prior to the issue of a subdivision certificate for the subdivision of any management lot, the applicant shall plant 300 Banksia integrifolia per lot within that lot in public areas such as road reservations, car parks and open space areas”.

2. Amend condition 47 by deleting the words ‘condition 42’ and insert instead the words ‘condition 41(a)’.

The Section 96 application was reported to Council’s meeting of 5 April, 2000 following which Council resolved as follows:-

- 1. Receives and notes this report.*
- 2. Officers, in connection with the National Parks and Wildlife Service, continue to negotiate with Lenen Pty Ltd with a view to negotiating an “out of court” resolution.*
- 3. Raises no objection to the modification of Condition 47”.*

Comment

In their letter dated 16 May, 2000, the National Parks and Wildlife Service has agreed to the selective removal of habitat in Stages 2, 3 and 4 and therefore there is now no apparent need to modify Condition 41(d).

- “46. Monitoring of the plantings in condition 40 shall occur every three months for the first year and thereafter at six monthly intervals unless otherwise agreed. A monitoring report shall be produced every six (6) months and shall make recommendations regarding any ongoing modifications to the Planting for the approval of the Director of Development Services based upon advice from the National Parks and Wildlife Service. These recommendations shall include the need to replace any unsuccessful plantings up to four years after initial planting and which may have been unsuccessful or destroyed. The NPWS and DDS reserve the right to inspect progress at any time.*

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47. *No approval shall be granted for development of any Management Lots unless the monitoring reports referred to in Condition 46 are sufficient to satisfy the Director of Development Services based upon advice from the National Parks and Wildlife Services that the plants are maturing in accordance with the programme set out in the Vegetation Management Plan. Each subsequent development application will detail the locations, timing and methodology of any further plantings proposed in accordance with Condition 42 above”.*

Comment:

The applicant has submitted the first Monitoring Report dated 15 September 1999 and that report was to the satisfaction of the NPWS. The second monitoring report was submitted to the NPWS on 5 May, 2000 and the Service has responded as follows:-

“There has been insufficient time since receipt of the second monitoring report for the NPWS to provide a detailed review. A brief study suggests that, although most of the 15,000 planted trees seem to be surviving, current growth seems to be slow. At this rate, it appears unlikely that sufficient compensatory foraging resource will be available within the next eight years (the original timeframes) and certainly not within the next four years (the revised timeframe)”.

In view of the Services comments in relation to Condition 41(d) and having regard to the recommended conditions arising from the NPWS letters of 16 May, 2000 and 24 May, 2000, the Director of Development Services is satisfied that conditions 46 and 47 have been complied with to a sufficient extent to enable the Stage 2, 3 and 4 applications to be recommended for approval.

- “49. *The applicant shall have prepared a Environmental Plan of Management by a suitably qualified person in conjunction with the Dept. of Land and Water Conservation and the Director of Development Services in respect of so much of Lot 500 as adjoins the Land that addresses any potential impacts on any threatened species, eg., oystercatchers, Little Terns and turtles, found using the beach and foredunes. This plan shall consider the exclusion of the public, domestic pets, feral animals, and four wheel drives from any detected nesting or roosting areas and the replanting of the dunes with suitable native vegetation including Banksias.”*

Comment

See comments for condition 35.

Deed of Agreement.

The terms of the Deed of Agreement for the Stage 1 consent which affect the proposed Stage 2 application are discussed below:

- “2.2 *Richtech shall execute a transfer to the Council of the Amelioration Land for the amount of \$1 within 28 days of the Consent becoming operational pursuant to the Act. The transfer shall not be registered by the Council and shall be held in escrow until the Amelioration Land has been dedicated to Council pursuant to the Section 94 Plan whereupon the said transfer shall be cancelled and returned to Lenen.”*

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Comment:

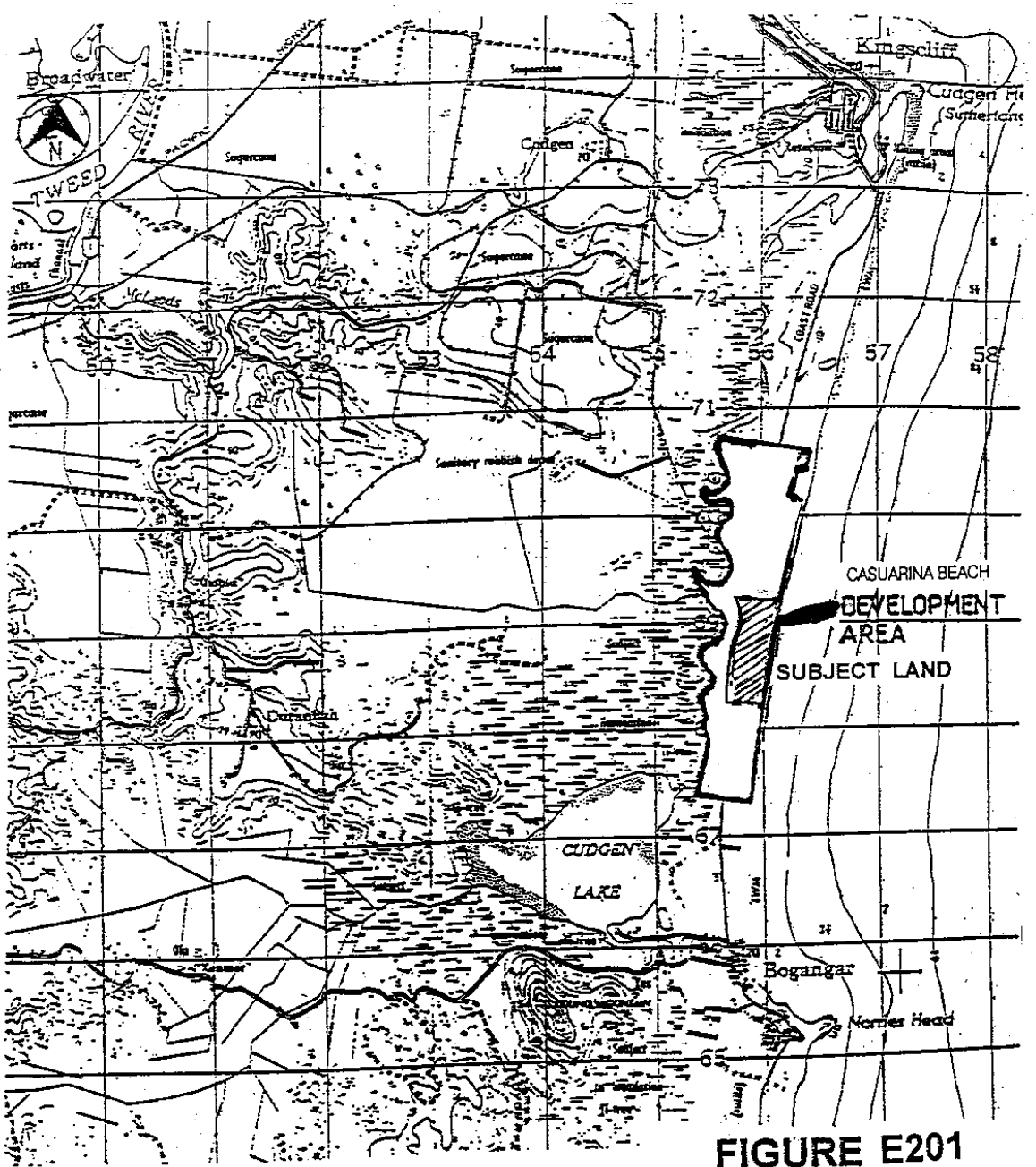
The amelioration land has not been transferred to Council, however this would not preclude determination of this application.

DESCRIPTION OF THE PROPOSAL

The subdivision application seeks development consent for the subdivision of the land at Casuarina Beach identified as management lots 3, 4, 9 and part 13. The proposal is to subdivide the land into 101 lots consisting of 95 residential lots (52 beach front lots and 43 in land lots); 4 residue lots (lots 54, 55, 56 and 99 which will be developed subject to future development applications); and two open space lots (Lots 100 and 101).

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FIGURE 1 - LOCALITY PLAN



**FIGURE E201
LOCALITY PLAN**

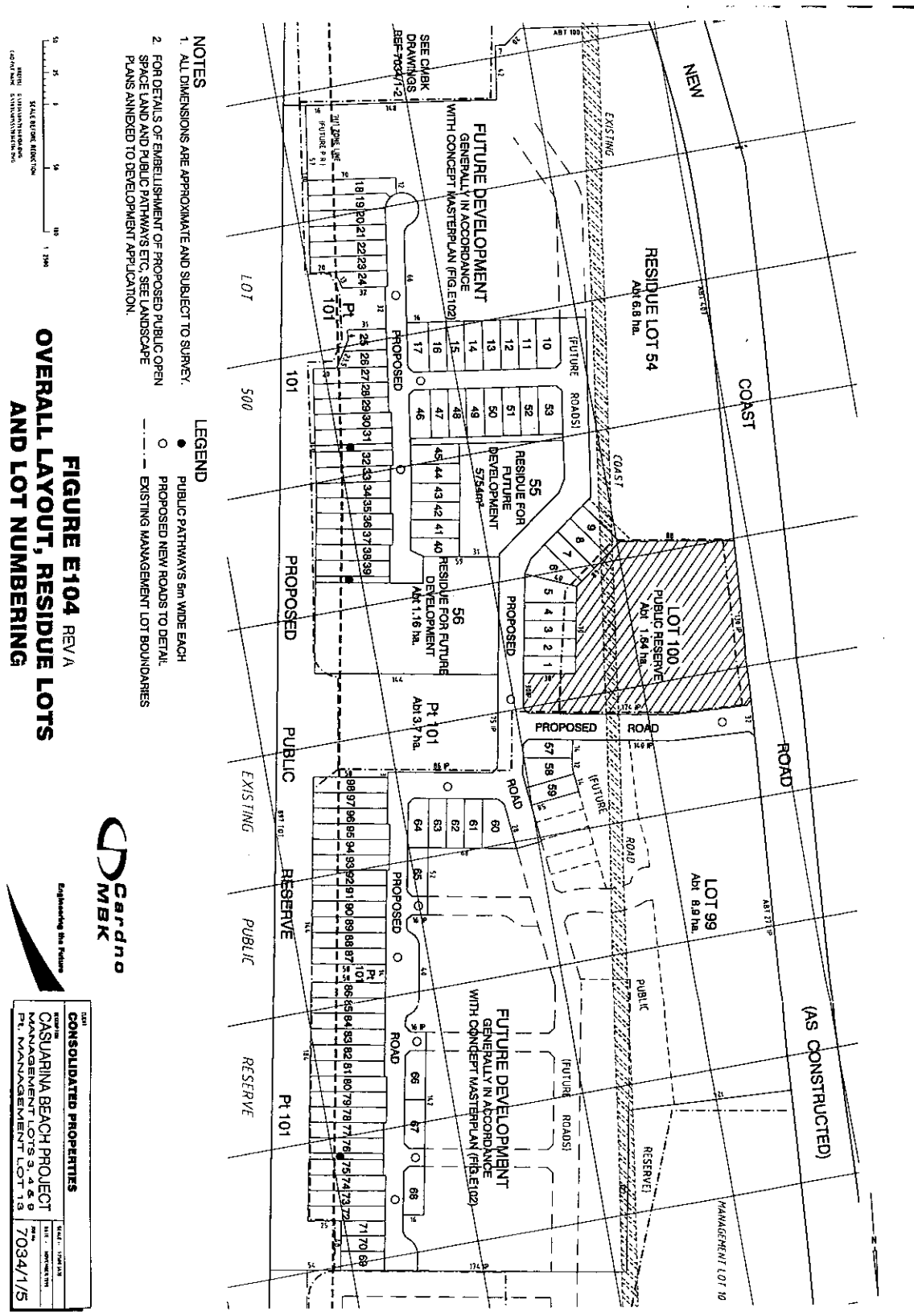


Engineering the Future

CLIENT	CONSOLIDATED PROPERTIES	
DESCRIPTION	CASUARINA BEACH PROJECT MANAGEMENT LOTS 3, 4 & 9 Pt. MANAGEMENT LOT 13	SCALE - 1:10000 (A3) DATE - NOVEMBER 1999 JOB No. 7034/1/5

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FIGURE 2 - SUBDIVISION PLAN



Reports from Director Development Services

FIGURE 3 - KINGS BEACH MANAGEMENT LOT PLAN

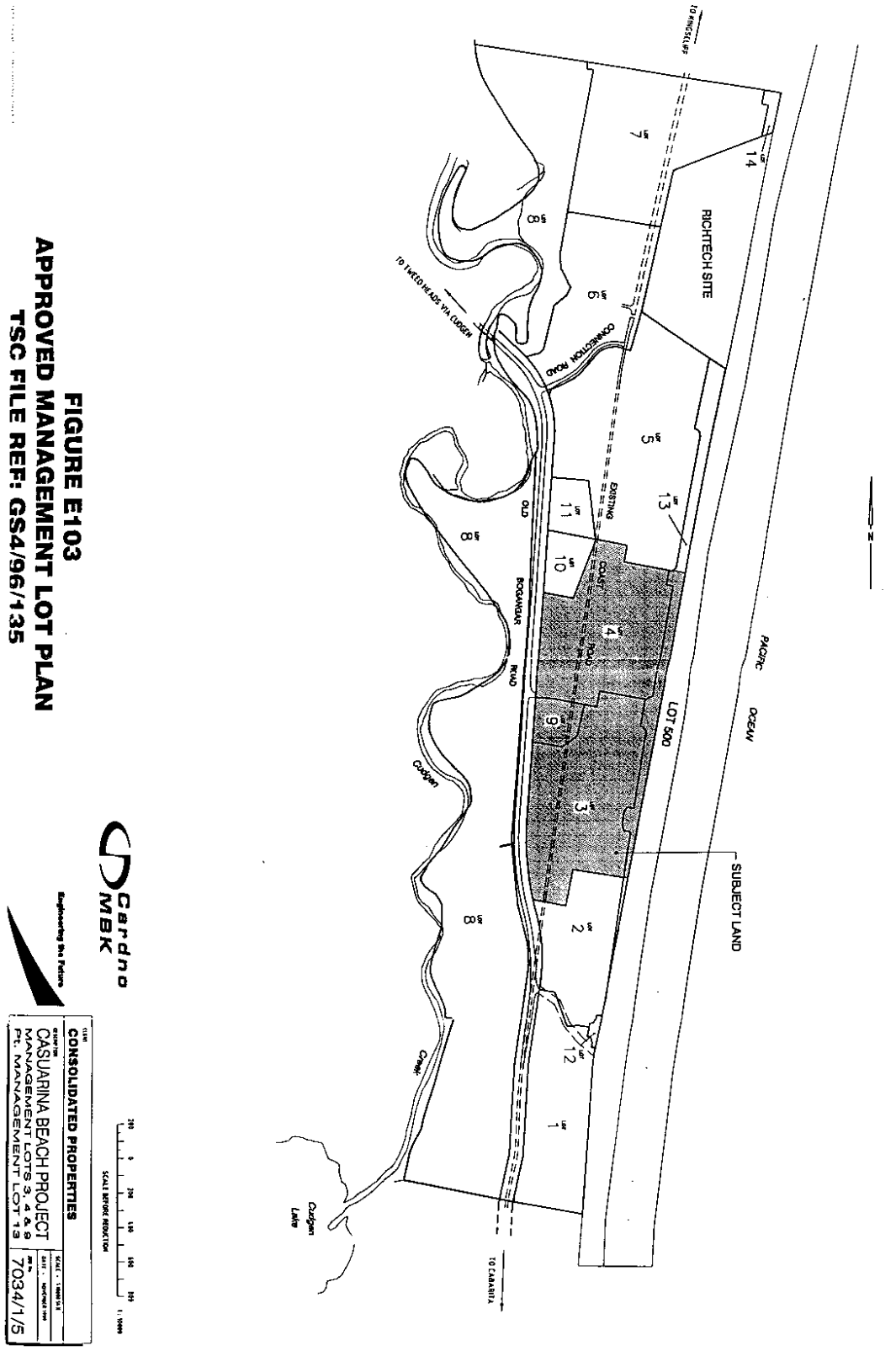


FIGURE E103
APPROVED MANAGEMENT LOT PLAN
 TSC FILE REF: GS4/96/135



Engineering the Future

CONSOLIDATED PROPERTIES	
OWNER	LOT 1 - 1000/13
PROJECT	CASUARINA BEACH PROJECT
MANAGEMENT LOTS 3, 4 & 9	MANAGEMENT LOTS 3, 4 & 9
PL. MANAGEMENT LOT 13	MANAGEMENT LOT 13
DATE	7034/1/5

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CONSULTATION

This application was referred to the following Government Authorities.

1. National Parks and Wildlife Service (NPWS)
2. Department of Urban Affairs and Planning (DUAP)
3. Department of Land and Water Conservation (DLWC)

A summary of the Government Authority submissions is provided below with comments where appropriate.

1. National Parks and Wildlife Service

The application is accompanied by a flora and fauna assessment and a report on the impact on the Common Blossom Bat habitat. These reports, together with the application were sent to the NPWS for their comment. A copy of the Services response dated 16 May, 2000 is attached to this report. The NPWS comments are provided below in summarised form and comments provide where appropriate.

* Relationship of the Stage 1 consent (S96/135) to the Development Application

“NPWS seek Council’s advice on whether the Stage 1 consent orders are relevant for the purposes of continuing assessment of Stages 2, 3 and 4 development applications.”

Comment

The Stage 1 consent (S96/135) remains relevant to Stages 2, 3 and 4 development applications and as previously discussed in this report the Stage 1 consent affects these applications and needs to be considered.

It is considered that the proposal is generally consistent with the Stage 1 consent.

* Threatened Species Impacts and the Status of the Development Applications

“It is the responsibility of Council, not the NPWS to determine whether a SIS is required based on Council’s evaluation of a Section 5A Assessment prepared in accordance with the provisions of the Environmental Planning & Assessment Act, 1979.”

Comment

The applicant has prepared preparing a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

In correspondence dated 24 May, 2000, the NPWS provided comments on the 8 point test report and a copy of their letter is attached.

* Threatened Species Issues

Reports from Director Development Services

NPWS have previously expressed concern with the extend of removal of Queensland Blossom Bat habitat.

The Blossom Bat

“The NPWS has received a formal request from the applicant to consider approval under Condition 41(d) of the Stage 1 consent for the removal of certain Blossom Bat habitat. The NPWS has reviewed extra information (dated April 2000) provided by Gunninah Environmental Consultants and is in receipt of the second monitoring report about the compensatory Banksia plantings.

The Gunninah report fails to detail the extent of low density Banksia proposed to be removed. However, by inclusion of low density data provided by Sinclair Knight Merz, the NPWS has concluded that about 29ha of Banksia habitat will be affected whilst removal of the remaining 19ha will be deferred. The deferral area hold over half of the high quality habitat.

The majority of the area proposed for clearing contains lower densities of Banksias, providing less feeding resource.

About 107ha of potentially suitable habitat is within the foraging range of the bats. Of this 87ha are Banksias. The removal of higher quality habitat from within the Casuarina Beach site represents about 12% of total potential habitat. It is likely that the usage of area outside the subject site is occurring and there is some kind of biological balance. However, it has not been satisfied that these areas are likely to be under utilised or be able to accommodate any bats displaced by the habitat removal. The NPWS concludes that a reduction in number of bats in the vicinity is likely to result from the proposed clearing.

The second monitoring report suggests that although most of the 15,000 planted trees are surviving, growth seems to be slow. At this rate it appears that sufficient compensatory foraging resource will not be available within the next 8 year and certainly not within the next 4 years.

After consideration of the above and in accordance with Condition 41(d), the NPWS approves the selective removal of habitat in Stages 2, 3 and 4 despite the reduction in productive inflorescences subject to inclusion of clauses reflecting the following in the Development Consents:

- A minimum of 300 Banksias are to be planted in each development lot in areas of public or private open space. These trees should be located in clumps and as far away from urban areas and lighting as possible.*
- All large mature Banksias (in excess of 10 cm DBH), up to a maximum of 30 per lot, in public or private open space, drainage swales, etc are to be marked and retained.*
- Clearing of the north-western deferred area, as identified in the Gunninah report, is to be prohibited for a period of at least four years and any approval after that shall be subject to an agreed biological timeframe to be determined by the result of the ongoing monitoring program.*

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- *Clearing of the commercial area is to be prohibited for at least four years.*

Notwithstanding the above approval, concurrence may still need to be sought from NPWS in relation to other threatened species conditions should Council conclude significance with respect to S5A assessments for the Stage 2, 3 and 4 DAs as discussed below.”

Comment

As previously discussed, having regard to the above NPWS comments, it is now considered that Condition 41(d) of Consent S96/135 is satisfied subject to imposition of the amended conditions contained in the NPWS letter dated 24 May, 2000.

* Other Threatened Species

“The NPWS is aware of threatened species records, including marine turtle and Glossy Black Cockatoos, that were either not known or did not exist at the time that the Stage 1 SIS was produced.

The NPWS considers that retention of the Horsetail Oak, and other native dune vegetation, together with a proactive dune rehabilitation plan and appropriate controls on beach usage and lighting are essential to the continued conservation of these species in the area. The NPWS considers that each subsequent DA must be individually assessed under Section 5A for its impact on these species. Additional information is now held regarding Glossy Black Cockatoo use of the subject lands. It is recommended that this new information be considered in Section 5A assessments for these species.

The NPWS also recommended that a Section 5A Assessment be prepared to permit consideration of the significance of impact of the developments on Loggerhead and Green Turtles.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May 2000 is attached.

Insofar as the Glossy Black Cockatoo, Loggerhead and Green Turtles are concerned, having regard to the 8 point test report submitted by the applicant and the advice from the NPWS dated 24 May, 2000, it is considered that on balance, the stage 2, 3 and 4 development applications are unlikely to have a significant effect on these species and therefore a SIS is not required.

However, it is acknowledged that cumulative impacts are of concern and it may well be that the future development applications to implement the Dune Management Plan/Lot 500 Management

Reports from Director Development Services

Plan required by the Stage 1 consent and the Ministers consent for the Lenen North land may trigger the need for an SIS for these and other species.

Any SIS would need to address the magnitude and significance of impacts and possible mitigation measures.

* **Potential Impacts on Threatened Birds listed as International Treaties**

“Records are held of the Great Knot utilising Bogangar Beach within 500m of the subject land. The Great Knot is listed under the China - Australia and Japan - Australia Migratory Bird Agreements and as a Vulnerable species on Schedule 2 of the TSC Act. It is recommended that a s5A assessment is prepared for this species and any other threatened migratory bird species likely to occur on the subject lands or the adjacent beach.”

Comment

The applicant has prepared a further 8 point test report to address the four threatened species identified by the NPWS in their letter of 16 May, 2000.

The 8 point test report was submitted on 23 May, 2000 and that report concludes, in summary, that there is unlikely to be a significant effect and therefore there is no requirement for the preparation of a Species Impact Statement.

A copy of the 8 point test report has been referred to the NPWS for advice and a copy of their response dated 24 May, 2000 is attached.

* **East-West Habitat Connections**

“It is noted that there is no provision in the DAs for habitat connections between the primary faunal habitats. These habitats are the Dunal areas and the environmental protection zones, adjacent to Cudgen Creek, including SEPP14 areas. A corridor, possibly 25m wide is proposed on the former Narui land (Richtech land) which did not form part of the Stage 1 consent. Provision could also be required west of this land to connect the environmental zones.

As a minimum, it is recommended that drainage swales running east-west across the subject lands be replanted with suitable indigenous vegetation sourced locally to assist the east-west dispersal of wildlife.”

Comment

Given the commitment given by the Stage 1 consent, DCP11 and Section 94 Plan No. 19 Master Plan it is considered unreasonable to require the east-west corridors as proposed by NPWS.

It is considered however that the east-west drainage swales, which are located in open space, are suitable to assist the dispersal of wildlife and any consent should be appropriately conditioned to require these lands to be suitably vegetated.

Taking into consideration the location of the many north-south roads, in particular Coast Road and the Koala fence barrier which act as physical barriers to animals it is likely that only arboreal animals will take advantage of the corridors.

Reports from Director Development Services

* **Fire Management**

“Section 3.1 of the Stage 1 Bushfire Management Plan states “in terms of bush fire risk, works associated with Stage 1 present little risk potential. Greater potential for bush fire risk will occur with staged development of the subject land which retains that individual plans will be presented with subsequent development applications for stages of the development, it appears that such plans have not been prepared for Stages 2, 3 and 4.

It is recommended that a fire management plan for the subject lands be considered by Council prior to its consideration of the DAs, so that the potential environmental impacts, including impacts on threatened species can be considered.

Depending on the outcomes of the fire management planning, s5A assessments may need to be reviewed. Frequent fire is gazetted as a Key Threatening Process under the TSC Act and its impact on fire sensitive species such as Glossy Black Cockatoo would need to be assessed.”

Comment

It is considered that a Bushfire Management Plan for this proposal is necessary and any consent shall be appropriately conditioned to require this plan prior to the issue of the Construction Certificate.

* **Potential Impacts on the NPWS Estate, Cudgen Creek, SEPP14 and associated Threatened Species Habitat**

“There is potential for the proposed development to impact on the Cudgen Nature Reserve, Cudgen Creek, SEPP14 area and associated threatened species habitat. The primary stress factors identified for the sub-catchment include urban pressure and algal outbreaks.

NPWS recommend a 50m buffer be established to the Nature Reserve and that no development be permitted within this buffer.”

Comment

The proposed buffer is considered to be appropriate and any consent will be appropriately conditioned to require a Section 88B Restriction to provide a 40 metre buffer extending north of the southern boundary of Management Lot 1 (proposed Lot 1 of Stage 2) where it adjoins the Cudgen Nature Reserve. This restriction will provide that no development will be permitted within this buffer. A 10m wide dedicated corridor for a cycleway/walkway is also proposed, thus providing a 50m buffer in total.

* **Potential Impacts on SEPP26**

“It appears that development (Stage 2) is proposed within 100m buffer zone of a SEPP26 Littoral Rainforest. It appears that the environmental impacts of development in this buffer have not been assessed. Although the provisions of SEPP do not apply to land zoned for residential purposes, development within the buffer is not supported by the NPWS until such time as an assessment is made of the likely impact including consideration of alternatives and mitigation, where appropriate.”

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Comment

The SEPP26 littoral rainforest identified above is located on the western side of the new Coast Road. It is considered that the Coast Road and the Koala barrier fence and fencing proposed for the development should provide an adequate buffer between the development and the SEPP26 land.

2. Department of Urban Affairs and Planning

The application proposes the subdivision of the land within the 7(f) zone to create up to 26 allotments extending into this zone from the neighbouring residential zone. Public carparking is also proposed within this zone. The subdivision of the 7(f) zone requires the concurrence of the Director of DUAP.

DUAP has advised as follows:-

“Concurrence is granted to the subdivision of land within the 7(f) zone under LEP 2000, to create up to 26 allotments in Stage 2, 46 lots in Stage 3 and 53 allotments in Stage 4 extending from the neighbouring 2(e) zone, as described on plans previously submitted to the Department.

Concurrence is granted on the basis of the applicants’ claim that the purpose of the subdivision of the 7(f) zone is for environmental benefit and not for dwelling houses (which are a prohibited in the zone), and subject to:-

- 1. no residential or associated buildings being erected on land zoned 7(f);*
- 2. Landscaping to the satisfaction of the Council being established on the land zoned 7(f) within each allotment to protect the scenic amenity of the land;*
- 3. Pedestrian and bicycle access only from the eastern boundary of the allotments to the public walkway and cycleway may be made provided such access is not inconsistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation; and*
- 4. No beach access for vehicles or pedestrians from either the carpark or from the public walkway and cycleway unless such access is consistent with a Management Plan which covers the public foreshore areas and is agreed to by both the Council and the Department of Land and Water Conservation.*

Comment:

The primary objectives of the 7(f) zone are as follows:-

- “* To identify lands susceptible to coastal erosion and protect them from inappropriate development;*
- * To protect and enhance the scenic and environmental values of the land”.*

It is considered that the encroachment of the beachfront lots into the 7(f) zone is inconsistent with the zone objectives. Further, it should be noted that dwelling houses are prohibited in the 7(f) zone

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and it would therefore appear that a subdivision to create an allotment for the purposes of the erection of a dwelling house is also prohibited.

DUAP has granted concurrence for subdivision in the 7(f) zone and the applicant has also provided details on landscaping within the 7(f) zone. The landscaping plan provides a cross section of the development where the beachfront lots are within the 7(f) zone and backs onto the north/south cycleway/walkway. This plan generally provides that the beach front lots in the 7(f) zone will have landscaping consistent with the north/south cycleway. This should ensure that the landscape between the beachfront lots in the 7(f) zone and the cycleway/walkway is uniform. Fencing to the rear of the beachfront lots in the 7(f) zone is also to be consistent with the fencing to the Crown Reserve (Lot 500) to also allow consistency and a uniform appearance.

Each of the lots in the 7(f) zone all propose to have a gate erected on the rear fence to allow access to the beach. Details on these gates have not been provided but it is considered that these gates should be consistent with the fence along the rear boundary.

In addition, the applicant has also provided their own legal advice in relation to the subdivision in the 7(f) zone as follows:-

“We have viewed the proposed plan of subdivision for Stage 2 of the Kings Beach Development. Part of this site is zoned 7(f) (Environmental Protection (Coastal Lands) Zone). This 7(f) land comprises a corridor strip on the eastern side of the “foreshore” blocks.

We have examined the provisions of the Tweed Local Environmental Plan 1987. The objective of the 7(f) zone is “to identify lands susceptible to coastal erosion and protect them from inappropriate development”.

Within zone 7(f) “Beach maintenance” may be carried out without development consent. Uses such as ‘environmental facilities’, “recreation areas” and “works for drainage and landfill” require development consent but are otherwise permissible. “Environmental facility” is defined by the LEP to mean-

“A structure or work which provides for -

- (a) nature study or display facilities such as walking, boardwalk, observation decks, bird hides or the like; or*
- (b) environmental management and restoration facilities such as beach restoration, dune restoration or the like”.*

Clause 24 of the LEP applies to land in a number of zones including the 7(f) zone. In considering whether to grant development consent for land zoned 7(f) clause 24(2) requires that Council take into consideration the relevant principles and criteria referred to in Schedule 3 of the LEP. Relevantly item 7 of Schedule 3 requires Council to have regard to the scenic value of the land and the effect that the carrying out of development would have on the retention of existing vegetation on the land and the impact of any proposed building or structure on the scenic quality of the locality. Further item 12 of the Schedule requires Council to consider the proposed development in terms of the

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assessment of coastal erosion and design considerations given for the reduction of the potential hazard.

Clause 24(3) provides that the Council may consent to the subdivision of land for a purpose permissible in the zone (zone 7(f) other than for a dwelling house or agriculture, provided the Council is satisfied that the size and the shape of the allotment to be created is suitable for the proposed purpose.

Clause 24(3) makes it clear that dwelling houses could not extend into the 7(f) zone. This does not prevent however the “foreshore” allotments extending down into the 7(f) zone. The use of those parts of the allotments within the 7(f) zone must however comply with clause 24(3) and the use of the 7(f) part of the allotment must be for a purpose permissible in the zone. For this reason the Stage 2 application must clearly identify that the 7(f) zoned land will be managed by the future individual foreshore lot owners who will be involved in the ongoing environmental management and restoration of this area including bush restoration featuring the removal of noxious weeds and with erosion prevention works such as the planting of ground covers. Environmental facilities would also be provided by way of display and access facilities such as walking, observation decks, bird hides etc.

In addition to these private environmental works, public pedestrian access to the beach will be provided by several linkages. These linkages will enable the public to walk across the 7(f) land so that the environmental quality of this area can be observed and studied.

*We note that the decision of the former Chief Judge of the Land and Environment Court, Justice Cripps in *Argyropoulos v Canterbury Municipal Council* (1988) 66 LGRA 202 confirms the correctness of the above advice. That is to say, provided the 7(f) land is designated for a permissible use and the residential development will not extend across the zoning boundary then the single allotments may straddle the two zones. The subdivision accordingly can be a Torrerns subdivision in which each of the foreshore blocks extend into and include the 7(f) land.”*

It is concluded that the intent of the Stage 1 consent was to separate the 7(f) zone as non-subdivided land subject to community title and in effect as private open space from the development to preserve the coastal environment and restrict development (structures) in the 7(f) zone other than landscaping, fencing and works associated with the north/south cycleway/walkway. This would generally be consistent with the zone objectives.

This has been supported by the Director Development Services and the applicant has been advised of his position. The applicant disagrees with this advice and argues that the intent of the Stage 1 consent was not to separate the 7(f) zone from the development, in particular subdivision.

3. Department of Land and Water Conservation (DLWC)

“Dune Management Plan

The Dune Management Plan approved by Council in January 2000 is not acceptable to the Department (DLWC).

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A new Dune Management Plan should be prepared. It is recommended that the proponents and/or their consultants liaise with DLWC and Council staff to obtain detailed written criteria for the preparation of an acceptable Dune Management Plan.

DLWC seeks a consistent approach to dune management for all of Lot 500 between Kingscliff and Cabarita.

Stormwater Management/Lot 500

No stormwater/infiltration ponds are to be located on Crown land (Lot 500 DP 727420).

It is noted under 3.1.3 Impact of Earthworks that earthworks will result in the site generally grading to the east to the beach dunal system.

More information is sought on the details of the proposed stormwater management”.

Comment

An amended Dune Management Plan and Lot 500 Management Plan has been prepared by Aspect North dated 27 April, 2000 for all of Lot 500 fronting the development. A condition is recommended requiring implementation of the approved plan.

No stormwater/infiltration ponds are located within Lot 500.

The applicant has provided details on stormwater management to Council’s satisfaction and any consent will be conditioned appropriately.

EVALUATION

A complete assessment of the application against the matters for consideration under Section 79C(1) of the Environmental Planning & Assessment Act, 1979 is provided below.

(a) (i) Planning Instruments

Tweed Local Environmental Plan 2000 (TLEP 2000)

The land, the subject of the proposed subdivision is zoned Part 2(e) Residential (Tourist) and Part 7(f) Environmental Protection (Coastal lands). The proposed development is permissible with the consent of Council.

There are a number of clauses in the TLEP 2000 which require consideration. These are discussed below.

Clause 17 - Social Impact Assessment

The objective of this clause is to ensure proper consideration of development that may have a significant, social or economic impact. In this instance, it is considered that this proposal will contribute to a significant social or economic impact.

This clause also provides that when Council considers that a development is likely to have a significant social or economic impact in the locality or Shire, as the case may be,

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the Council may only grant consent to the development if it has considered a social impact statement in respect of the proposed development.

A social impact statement has not been provided with this application.

The application indicates that the impacts of the proposed development have already been addressed as part of the development application that culminated in the Consent Order S96/135.

It is considered that a Social Impact Assessment is not necessary as this application is generally consistent with the Stage 1 consent and some significant positive economic and social impacts will result.

Clause 20 - Subdivision in Zone No. 1(a), 1(b), 7(d) and 7(l)

The land within the subject land zoned 7(l) is not proposed to be subdivided as part of this application. The subject site is not affected by any 7(l) zone.

Clause 22 - Development near Designated Roads

The Coast Road is a designated road and the subject site has frontage to the Coast Road.

Clause 22(4) provides as follows:

“(3) The consent authority may grant consent to development on land to which this clause applies only if it is satisfied that:

- (a) the development (because of its nature, appearance, cumulative effect or illumination, or the intensity or the volume or type of traffic likely to be generated, or for another similar reason) is unlikely to constitute a traffic hazard or materially reduce the capacity or efficiency of the designated road, and*
- (b) the location, standard and design of access points, and on-site traffic movement and parking arrangements, would ensure that through traffic movement on the designated road is not impeded, and*
- (c) the development, or proposed access to it, will not prejudice any future improvements to, or realignment of, the designated road, and*
- (d) where the land is in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development is of a type that necessitates a location in proximity to the designated road for reasons other than only commercial advantage, and*
- (e) the development is of a type that is not sensitive to traffic noise or, if it is, it is located or adequate measures are included to ameliorate any potential noise impact, and*

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- (f) *the development would not detract from the scenic values of the locality, particularly from the point of view of road users, and*
- (g) *where practicable, access to the land is provided by a road other than the designated road, and*
- (h) *in respect of any application for commercial or retail development near the Pacific Highway in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development:*
 - (i) *would not compromise the Highway's function as the North Coast's primary inter- and intra-regional road traffic route, and*
 - (ii) *would not contribute to the need to expend public money on the Highway to overcome the effects of ribbon development, and*
 - (iii) *would not compromise highway safety and efficiency, and*
 - (iv) *would not cause or contribute to the shifting of the retail/commercial foci of any town from the town centre to a highway-orientated site."*

The application proposes only one access directly to the new Coast Road. The access point from the Coast Road was constructed as part of Stage 1 of the development.

Accordingly, it is considered that the proposal is acceptable in terms of traffic planning for the efficiency of the Coast Road.

No residential lots are proposed to be created adjacent to Coast Road. These lots will be created following submission of further development applications for subdivisions which will need further assessment on them.

Clause 27 - Development in Zone 7(f) Environmental Protection (Coastal Lands)

As discussed in the consultation section of this report the application proposes the subdivision of the 7(f) zoned land to create 26 lots extending in this zone from the neighbouring residential zone.

DUAP have granted concurrence and taking into account the applicant's submission and details on fencing and landscaping in the 7(f) zone and given that no buildings are proposed in this zone, it is considered that subdivision in the 7(f) zone is satisfactory under the circumstances.

Clause 29 - Development adjacent to Zone 8(a) National Parks and Nature Reserves

The Cudgen Nature Reserve is located immediately to the south of the subject land. It is considered that the development is unlikely to significantly impact on wildlife habitat.

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The Stage 1 application was supported by a Species Impact Statement which identified the likely effects of the development on flora and fauna found in the locality. In addition, this application is also supported by a flora and fauna assessment which generally concludes that the development is not likely to adversely impact on any flora and fauna in the locality. However, comments from the NPWS in relation to this report have only been received on 17 May 2000 and are addressed separately in this report.

Clause 35 - Acid Sulfate Soils

The applicant has submitted an acid sulfate soil management plan with the application to the satisfaction of Council's Environment and Community Services.

North Coast Regional Environmental Plan 1988 (NCREP 1988)

Clause 15 - Wetlands and Fisheries Habitat

This clause provides that Council shall not consent to an application to carry out development within adjoining or upstream of a coastal or inland wetland or fisheries habitat area or within a drainage catchment area of a wetland or fishery area unless it has considered the following matters:-

- a. the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat;
- b. the need to conserve the existing amateur and commercial fisheries;
- c. any loss of habitat which will or is likely to be caused by the carrying out of the development;
- d. whether an adequate foreshore reserve is available and whether this is adequate public access to that reserve;
- e. whether development would result in pollution of the wetland or estuary and any measures to eliminate pollution;
- f. the proximity of aquatic reserves dedicated under the Fisheries Management Act, 1994 and the effect the development will have on the reserves;
- g. whether the quality is in an area of protected land as defined in Section 21AB of the Soil Conservation Act, 1938 and any measures to prevent soil erosion;
- h. the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved;
- i. the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority in relation to the river, stream, wetland area or catchment.

In regard to the above matters the following comments are provided:-

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- (a)-(c) The application is supported by a water quality management and monitoring program, a erosion and sedimentation control plan and a acid sulfate soil management plan. These plans are satisfactory and should ensure that the quality of the water and habitat in and near Cudgen Creek is not significantly impacted upon.
- (d) There will be no affect on access to the foreshore of Cudgen Creek.
- (e) See comments in relation to (a-c) above.
- (f) There are no known aquatic reserves located in proximity to the site.
- (g) Cudgen Creek is not identified in the area of protected land.
- (h) The proposal will not result in the removal of vegetation along the water course.
- (i) There have been no recent environmental audits or water quality studies by the Department of Water Resources or Environment Protection Authority containing recommendations to the river, streams, wetland area or the catchment.

WBM Oceanics Australia prepared a Estuary Management Plan for Cudgen Creek on behalf of Tweed Shire Council, dated August 1997.

The Management Plan for Cudgen Creek has been prepared, taking into account habitat enhancement/conservation options, urban development, water quality, bank stability and opportunities for increased recreational usage of the Creek. The Management Plan is supported by technical analysis of specific issues, assessment of environmental benefits/debits and the need for further studies required to implement works. Additionally, priorities and costings to undertake the management actions described in the Management Plan are provided.

It is considered that the proposal is generally consistent with the principles of this plan.

Clause 29A(1) - Natural Areas and Water Catchment

This clause provides that Council must not grant consent for the clearing of natural vegetation in environmental protection, scenic protection or escarpments preservation zones unless it is satisfied that:-

- a. the wildlife habitat will not be significantly disturbed by the proposed development,
- b. the scenery will not be adversely affected by the proposed development, and
- c. an erosion and sedimentation control plan will be implemented which will successfully contain on the site any erosion and sediment caused by the development.

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As discussed, the beach front lots are partly located within the 7(f) zone, this is also the case for the public car parking area. This is adjacent to the foreshore cycleways/walkway which was approved by the Stage 1 consent and also passes through the 7(f) zone. In regard to the above matters, the following comments are provided:-

- a. The application is supported by a flora and fauna assessment which generally concludes that the proposal is unlikely to significantly affect any threatened species or habitat.
- b. It is unlikely that the scenery of the locality will be adversely affected by the proposal. The land in question will be subject to extensive landscaping and development restrictions.
- c. An erosion and sediment control plan accompanies the application and is satisfactory.

Clause 32B - Coastal Lands

The application is affected by the NSW Coast Government Policy. See section titled NSW Coastal Policy 1997 of this report.

In general, the proposal will not impede public access to the foreshore. Adequate public access to the beach will be available following completion of the development.

Clause 33 - Coastal Hazard Areas

It is considered that the proposal is generally consistent with this clause. The Crown land (Lot 500) to the east of the subject site will be subject to a Management Plan, to be approved by the Department of Land and Water Conservation. This land will be extensively rehabilitated with native species.

The application also identifies a number of access points across the foredune areas which provide suitable public access from the site to the beach. However, these trails are not proposed as part of this application and they will need separate approval from Council and the Department of Land and Water Conservation.

Clause 43 - Residential Development

This clause provides that Council shall not grant development consent for residential purposes unless,

- a. it is satisfied that the density of the dwellings have been maximised without adversely affecting environmental features of the land;
- b. it is satisfied that the proposed widths are not excessive for the function of the road;
- c. it is satisfied that, where development involves the long term residential use of caravan parks, the normal criteria for the location of dwellings, such as access to services and visible suitability of the land have been met;

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- d. it is satisfied that the road network has been designed so as to encourage the use of the public transport and minimise the use of private motor vehicles; and
- e. it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.

The significant environmental constraints on the land were identified in the Stage 1 consent and subsequently significant amounts of land identified for public open space and environmental protection will be dedicated for these purposes. However, the density of dwellings have not been maximised for this proposal and is not in accordance with the estimated population yields identified in DCP11 - Kings Beach. For more information on the population yields see the section on DCP11 - Kings Beach.

The proposed road hierarchy and public transport issues will be discussed later in this report.

No caravan parks are proposed and the sedimentation and erosion control plans accompanying the application is considered to be satisfactory.

Clause 66 - Adequacy of Community and Welfare Services

This issue was considered in the formulation of the Section 94 contributions plan applicable to the Kings Beach development. The staged provision of land/or contributions for provision and upgrading of community facilities is proposed, including community centre/multi-use hall, youth facilities, library facilities and health care facilities. Other local and subregional facilities are available at nearby Tweed Heads, Murwillumbah and Kingscliff including schools and hospitals.

Clause 81 - Development Adjacent to the Ocean or a Waterway

This clause provides that Council shall not consent to development on land within 100m of the ocean or any substantial waterway unless it is satisfied that:-

- a. there is sufficient foreshore open space which is accessible and open to the public within the vicinity of the proposed development;
- b. buildings to be erected as part of the development will not detract from the amenity of the waterway; and
- c. the development is consistent with the principles of any foreshore management plan applying to the area.

A 10m wide cycleway/walkway is proposed along the eastern boundary of the subject land running north/south. Adjacent to this path are a number of proposed public parks and parking areas. To the east of the pathway is the Crown Reserve which will have a number of access ways through it for the public to gain access to the beach. This reserve will be fenced for conservation purposes.

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No buildings are proposed as part of this application. However, it is unlikely that any buildings will significantly detract from the amenity of the waterway taking into consideration the extent of the Crown Reserve between the development and the beach.

As previously discussed, a Dune Management Plan is to be prepared for the Crown Reserve.

State Environmental Planning Policies (SEPPS)

SEPP11 - Traffic Generating Developments

In accordance with the provisions of this SEPP, the application was considered by the Local Traffic Committee. A summary of their comments is provided below.

“In accordance with the mandatory provisions of SEPP11 Local Traffic Committee approval is sought regarding the above development application. This relates to a 97 lot residential subdivision of Lot 2 DP 811425 Coast Road, Kingscliff.

The Chairman reported that last meeting dealt with Stages 1 and 2. This application represents extensions of the subdivision heading north and the committee viewed the plans.

The Committee requested that any lot within the Kings Beach Development that has two road frontages should only be permitted to have vehicular access to the lower order street, ie. not for the main spine road.

For Council’s information”.

SEPP44 - Koala Habitat Protection

The flora and fauna assessment submitted with the application provided a SEPP44 assessment and indicates that the subject site is of an unknown value as habitat for koalas. The subject site does not support any primary or secondary koala feed trees and is considered highly unlikely to provide koala habitat and therefore a plan of management is not required.

ii. The Provisions of any Draft Environmental Planning Instrument

There are no relevant draft instruments.

iii. Any Development Control Plans (DCPs)

DCP11 - Kings Beach

This is the principle DCP to guide future development and management of the Kings Beach development site. The proposal involves land at the southern end of the site known as Management Lots 3, 4, 9 and part 13. The DCP provides specific Development Control Plan provisions which articulate the design and development principles underpinning the development plan which was a component of the negotiated

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settlement between Lenen Pty Ltd and Tweed Shire Council. Those that specifically relate to this application are discussed as follows.

Clause 3.3 - Estimated Population Yields

The estimated population yields for management lots 3 and 4 provided by the DCP are 1800 persons. The application indicates the population yield for lots 3 and 4 at 1689 persons, which is well below the estimate of 18001170. This estimate of 1689 persons is based on the beachfront and inland lots and the number of townhouses/terraced apartments.

In addition, the application provides that the occupancy rates for the beach front lots inland lots is 3 persons per dwelling. However, it should be 2.6 person per dwelling in accordance with Section 94 Plan No. 19 - Kings Beach/Kings Forest.

In addition, the application provides occupancy rates for medium density (townhouse/terrace apartments) at 2.3 per dwelling whereas the Section 94 Plan provides 1.7. The application also provides an occupancy rate of 1.8 persons per room for tourist development (resort) whereas the Section 94 Plan provides 1 person per bed.

Obviously, the occupancy rates provided by the application are not consistent with the Section 94 Plan No. 19. Subsequently, the estimated population yields provided by the applicant are not consistent with the DCP.

As this proposal is part of a staged development over the entire Kings Beach site, it is possible that the total population yields may be achievable when the remainder of the site is development and subsequent applications submitted.

In addition, the proposal is not for the full development of the management lots 3 and 4 and some sites, will be subject to future development applications at which stage they will be assessed to ensure that the population yields in their respective lots are achieved.

Should the population yields not be achievable then the DCP and the Section 94 Plan will need to be amended to reflect the expected population yields in the event that Council gives approval to this application. This may require amendment to the Stage 1 consent also.

The applicant has reviewed the population yields for the Kings Beach site, including the Richtech land (formerly the Narui Site) and has provided the following:

“We refer to our recent minutes sent to you on April 10, 2000 and specifically direct your attention to Item 4 (note 5) in the Minutes of the April 3, 2000 planning and design meeting.

At the meeting we agreed to review the population figures in light of the most recent Stage 2-4 applications, including but not limited to the likelihood of Stages 5 and 6 being lodged in the near future and the fact that certain development sites, namely the tourist and resort areas, were considered likely

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to have different yields than those which had been initially proposed at the time of the Consent Order in 1998.

In addition, the inclusion of the Richtech site (previously known as the Narui Land) in the Stage 3 application needs to be brought into the “development planning loop” in order to ascertain the most likely final development scenario as we are best able to determine in mid-April, 2000.

As we all agreed, the need for flexibility was accepted as a desirable planning tool and there appeared to be a general consensus that some variation, in the order of 10%, was likely to be reasonable interpretation of the Consent Order’s direction that development be “generally in accordance” with the submitted Development Plans.

As you know, the Consent Order incorporated estimates for the subject site (excluding the Richtech land) of 5,600 within the 7 Management Lots. Independently, the Richtech land had been estimated to generate a population yield of around 777 persons, Based upon extrapolation, this would give a yield target of around 6,380 (rounded) give or take 10%, for the total development area (ie. both sites).

With a 10% variation as an allowable “flexibility principle”, this would give a target range varying between 5,742 and 7,018, given the centroid figure of 6,380.

Having reviewed our current population projections in light of the development scenarios, we believe that the development can readily achieve a population of approximately 5,820 which is only between 8-9% below the aggregated expectations for the original Consent Order land (ie 5,600) plus the Lenen land (ie. 777). In other words, as currently we are best able to ascertain, when completed, the development should have at least 5,820 persons as opposed to the projected figure for both sites of 6,380.

We therefore suggest that a reasonable interpretation of the Consent Order estimates would be to allow the range to fluctuate between 5,040 and 6,160, which is a 10% variation either side of the 780 yield figure.

Taking the lowest and highest yields from both sites (ie. -10% and +10%) gives the range of figures noted above, namely 5,742 and 7,020.

We also draw your attention to the fact that the Peterson’s health spa (with plans for around 90 units or 180 persons) proposal at the southern end of the site, whilst included in the Consent Order figures, has not been included in the estimates set out below in the Table. If this development is included, then the yield, per the Table set out at the end of this letter, rises to 6,000!

We further note that development Site B (Beachside Village) can accommodate apartments in place of the holiday cottages indicated in the Concept Master Plan. We are currently investigating this concept with the client. This could

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increase the yield on this site from 80 units (160 persons) to perhaps 150 units (300 persons).

Darryl and Nick, we believe that other development sites indicated on the Concept Master Plan could have their yield totals increased in order to achieve the target total as indicated in the attached Table, inclusion of Peterson's land does achieve this!

As indicated at the April 3, 2000 meeting, the final population totals will, to a significant extent, be determined by the market. Accordingly, the exact yields for each resort and medium density development complex site will depend on unit sizes and configurations, site planning concepts, market demands and other issues which cannot be accurately predicated at this time.

We request therefore that Council favourably consider the suggested approach in this matter by adopting the "flexibility principle" as the general guideline. This will remove the somewhat academic barriers to both our deliberations and negotiations.

The attached Table is transmitted for information purposes and should help to serve as a "working document" subject, of course, to change as we firm up on the specific projects as they come to fruition. We believe that if we jointly agree to this approach it will be seen as the major drawcards of the Casuarina Beach development.

Your earliest reaction to this proposal would be appreciated as we are well into the detailed planning for Stages 5 and 6 as well as discussions with other key resort developers and operators.

Finally, we would make the point that this recommended approach not only accommodates the Estimates for Population Yields per Consent Order No. 1, but also brings the Richtech land, which was not part of the Consent, into line with the philosophy and general development planning concepts enunciated in the initial Consent Order Development Plan.

In this regard, this approach removes any "hurdles" or confusions which might be seen to have arisen by the changes which further planning investigations have, inevitably, demanded."

Potential Population Yield for Casuarina Beach

(April 14, 2000)

<i>Product</i>	<i>Total Yield</i>	<i>Population Multiplier</i>	<i>Population Total</i>
<i>Beachfront Lots</i>	<i>130</i>	<i>X3</i>	<i>390</i>
<i>Beach View Lots</i>	<i>17</i>	<i>X3</i>	<i>51</i>

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<i>Dry Lots</i>	462	X3	1,386
<i>Units on Medium Density and Resort Sites</i>	1,997	X2	3,994
TOTAL	2,606		5,821

Given that the population yields in the Stage 1 consent are somewhat arbitrary, it is considered that the reduced yields are acceptable, subject to formal amendment of the DCP and Section 94 Plan to reflect the changes and to include the former Narui Coastal lot.

Clause 3.5 - Urban Design Principles

1. The east/west cycleway/footpath linkages are not as per the approved development plan but the linkage/permeability shown on the Stage 2 master plan is considered to be satisfactory.
2. The fencing of the boundaries of the private open space/beach maintenance areas is generally consistent with the fencing protection of the dual areas, ie. 1.2m high fence with wooden posts with high quality wire mesh. A gate will also be provided to each allotment to allow direct access to the cycleway/walkway and beach.
6. This provides that approximately 500 public car parking spaces are to be provided within the Kings Beach site. The concept master plan for the whole site appears to provide for about 550 spaces. Accordingly, the proposal is supported in this regard.
8. The application identifies the number of public accesses from the beach to the site. This relates to their position on the ocean foreshore road (esplanade), nodes of public open space, retail and commercial activities and public car parking provisions. Each of these public accesses are generally separated by approximately 400 metres and are considered to be consistent with the DCP.

However, these public accesses do not form part of this application. A separate application(s) will need to be submitted for their approval/construction.

13. The DCP provides that local parks shall be provided as part of the development of the management lots and that a minimum of 2000m² of useable recreation area and be not more than 250m from any dwelling and have public road frontage for a minimum of 50% of the perimeter frontage of the local park.

In this instance, some lots do not comply as these lots are not within 250m of a public park (maximum distance about 300m). It is considered that the proposal is generally consistent with this clause. Of those lots that do not comply it is considered that the connectivity of the road and pedestrian/cycle network allows for suitable access from these lots to open space within the development.

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14. This provides that all nodes of retail and commercial activity with integral public open space and community facility provisions shall generally be within 400m of any dwelling within the development.

In this instance some lots do not comply. However, as mentioned above (13), it is considered that the overall development is generally consistent with this clause. Again, it is considered that the development allows connectivity between the roads and the cycleway/walkway network.

15. This generally provides that acoustic fencing and landscaping is to be provided to the east of the new Coast Road. No residential lots are to be created adjacent to Coast Road. This will be considered when future applications for subdivision are submitted over the residue lots adjacent to Coast Road.

18. There will no direct vehicular access from the relocated Coast Road other than via approved intersections.

The proposal provides one access and is consistent with this provision, as discussed earlier.

23 & 24

A water quality management and monitoring program has been submitted with the application and is considered to be satisfactory.

26. It will be a condition of any consent that all existing Bitou bush plants be removed and the disturbed areas shall be appropriately treated to prevent dust nuisance and soil erosion.

31. An acid sulfate soil management plan has been submitted and is generally satisfactory and any consent will be conditioned appropriately.

NSW Coastal Policy 1997

The DCP also takes into consideration the NSW Coastal Policy 1997. It is considered that the proposal is generally consistent with the relevant objectives of this Plan. The policy generally provides that development needs to take into consideration a number of objectives which attempt to protect the natural environment. The specific objectives of the policy which relate to this development are summarised as follows:-

- * Identify conservation values of land and aquatic environments;
- * Improve and maintain water quality;
- * Manage coastline and estuarine environments for public interest and ensure their vitality;
- * Impacts of natural processes of a high priority;
- * Design development to compliment surrounding development;
- * Increase public access to foreshores.

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All the above objectives have generally been discussed throughout this report and it is considered that the development is unlikely to create any significant adverse environmental impacts on the coastal environment.

DCP16 - Subdivision Manual

The proposal is generally consistent with the various standards of this plan.

DCP39 - Energy Smart Homes Policy

This plan was adopted on 7 April 2000 and came into effect on 10 April 2000 and subsequently needs to be considered. It is accepted, however, that this application was submitted well before this plan was adopted and this would account for any inconsistencies with this plan.

This DCP has been developed in response to the growing community desire to achieve greater efficiency from domestic use. It stems from a general concern about greenhouse gasses generated by energy use, their affect on the environment and in particular, contribution to global warming. The DCP shows how energy efficiency can be achieved in all new residential subdivisions and buildings, including alterations and additions to existing buildings. It includes design alternatives - such as passive solar design and solar water heating - that will dramatically reduce the demand for non renewable energy, thus reducing both costs and air pollution and reducing the level of comfort in the average Australian home.

Section 4.0 of this Plan specifically relates to subdivisions and provides preferred outcomes for the following:-

- * Street orientation;
- * Lot orientation, size and shape;
- * Access;
- * Public transport;
- * Setbacks; and
- * Street lighting

A solar proficient subdivision will ensure that the overall development is significantly more energy efficient than a conventional subdivision.

1. Street orientation

- * Align streets east/west and north/south wherever possible
- * North/south streets should be within 20 degrees west and 30 degrees east of true north
- * East/west streets should be within 30 degrees south and 20 degrees north true east

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In this regard the majority of streets proposed are either aligned north/south or east/west and are consistent with this outcome.

2. *Lot orientation, size and shape*

- * Lots should be orientated so that one axis is within 30 degrees east and 20 degrees west of the true solar north
- * North facing slopes improve opportunities for solar access, small lots are therefore best suited to north facing slopes with gradients of less than 15%
- * South facing slopes impose a penalty on solar access, therefore, large lots/lowest densities are best suited to north to south facing slopes or other areas where solar access is poor
- * The north side of east/west aligned streets is suitable for narrow lots
- * Lots aligned on an east/west axis generally need to be wider than lots aligned on a north/south axis to prevent undue shadow effects on lots to the south
- * Where streets are within the acceptable orientation range, use rectangular shaped lots
- * Sloping sites are not suitable as flat sites for smaller lots

It is considered that all lots have at least one axis within 30 degree east and 20 degrees west of the true solar north.

The land is relatively flat and following earthworks it is considered that the topography of the land won't significantly change. Accordingly, the issue of north and south facing slopes is not a significant issue in this instance.

All lots on the northern side of the streets are relatively narrow and should comply in this regard.

The lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis. Accordingly, this is not consistent with the DCP and could have undue shadow effects on the beachfront lots.

3. *Access*

- * Footpaths are designed to access public transport routes
- * Subdivision design includes, clearly marked bicycle network, marked kerbside bike lanes, dedicated cycleways, links to regional cycleways
- * Subdivision design should maximise the ability to travel directly between any given destination and origin

4. *Public Transport*

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- * Subdivision design should allow for circuitous public transport routes that maximise the number of lots within a short walking distance to potential transport routes
- * Suitable areas for bus stops and lay back areas should be identified
- * Long cul-de-sacs should be avoided as these reduce accessibility to public transport

It is considered that the proposal is generally consistent with the access and public transport principles identified above.

5. *Setbacks*

- * Variable setbacks and zero lot lines are the means of maximising solar opportunities, especially with small or narrow lots. Setbacks are manipulated to maximise solar access for all lots.
- * Preferred setback lines can be shown on subdivision plans to help builders, designers and home buyers make the best use of solar energy.

The Architectural Design Regulations (to be discussed later in this report) provide some variations to the front setbacks.

Section 94 Contribution Plans

Section 94 Contribution Plan No. 19 - Kings Beach/Kings Forest presents a strategy for the provision of structured and unstructured open space and community facilities. Those sections of the plan that specifically relate to this development are discussed as follows.

5.0 Expected Population

This plan indicates that the expected population of Kings Beach is 5600 persons, with 3000 permanent residents and 2600 tourists.

As discussed in Section (iii) titled Development Control Plans of this report, it is unlikely that the population yields will be achieved for this proposal. The DCP and Section 94 Plan will need to be amended to reflect this.

The occupancy rates and the population yield for Stage 4 are not consistent with those in the Section 94 Plan.

7.0 Timing of Contributions

Credit

Approximately 5.5ha of active open space is to be dedicated as part of the Stage 1 consent being management lots 9, 10 and 11.

However, as discussed in 5.0 above the population yields identified in the table for management lots 3 and 4 have not been achieved by this application. Accordingly, this

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could have implications on the provision of the active open space credits within each of the management lots. Subsequently, the Section 94 Plan and the DCP for this site will need to be amended to reflect the current figures.

14.0 Open Space

Structured Open Space

The developer is to dedicate a total of 5.5ha of structured open space at no cost to Council in conjunction with the Stage 1 consent. These being management lots 9, 10 and 11. Lot 9 (Lot 100) is subject to this application and is to be dedicated to Council and suitably embellished or contributions accepted. Any consent will be conditioned appropriately.

The amount of structured open space to be dedicated (5.5ha) has been calculated on the population yields provided by the DCP. Any variations to those yields, which is the case for this proposal, may have implications on the amount of structured open space to be provided. Accordingly, the DCP and Section 94 Plan will need amending to reflect this.

At the moment the population yields provided by the applicant are below those provided by the DCP. Accordingly, this proposal does not require any additional structured open space above the 5.5ha.

A monetary contribution would be required for the embellishment of the structured open space.

Passive Open Space

The developer is to dedicate and embellish Lots 12, 13 and 14 as public open space in conjunction with the Stage 1 consent. These lots together with the proposed parks for this application are to be suitably embellished by the developer.

Public open space needs to be provided in accordance with the Section 94 Plan for the site. In respect of the casual open space, the Section 94 Plan requires that a minimum area be 2000m² and not be more than 250m from any residential dwelling and each parks perimeter should have at least 50% frontage to a public road. As discussed earlier it is considered that the development is generally consistent with this.

Again, as discussed above for the structured open space the estimated population yields for Lots 3 and 4 are unlikely to be achieved and subsequently this may have implications on the provisions of casual open space. However, the yields provided in the application are below those provided by the DCP and the proposal is unlikely to require any additional casual open space above that already provided or required by the Section 94 Plan.

15.0 Cycleways

The proposal is considered to be generally consistent with the Section 94 Plan.

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Section 94 contributions will be applicable.

16.0 Community Facilities

Contributions will apply for the provisions of the following facilities:-

- * community centre/multi-use hall
- * youth facilities
- * library facilities
- * healthcare facilities

The works program in the Section 94 Plan indicates the appropriate threshold at which to provide the facilities. Special factors may arise requiring provision of a facility before the stage threshold is reached.

The community facilities are likely to be located within the town centres/commercial/retail areas for convenience.

(b) The Likely Impacts of the Development

Environmental Impacts

The proposal is unlikely to create any significant adverse environmental impacts on the locality. To reduce any potential impacts the applicant has submitted a sedimentation and erosion control management plan to control and minimise the pollution caused by soil erosion on downstream waterways during the construction project. This plan is generally satisfactory.

The applicant has also submitted a water quality management and monitoring program. This plan is also considered to be satisfactory.

These plans and the acid sulfate soil management plan should ensure that the quality of the water at Cudgen Creek is not adversely impacted upon.

The development of the Kings Beach site will inevitably have some impact on the environment. What Council needs to consider is what is an acceptable impact given the history of the site. To reduce these impacts a number of management plans and reports have been prepared. These reports and the management plans have helped to achieve a subdivision design and to minimise the impact of the proposal on the environment from the construction stage to the completion. These reports and management plans will be incorporated into any consent, where appropriate.

A flora and fauna assessment accompanied the application.

The conclusions from the flora and fauna assessment prepared by James Warren and Associates is as follows:-

“It is proposed that the site be developed for urban residential purposes as a component of the wider Casuarina Beach Estate.

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Previous flora and fauna surveys and the NPWS Database were reviewed to determine the occurrence of significant species in the locality. This working list was used as a basis for determining target species and designing more detailed surveys.

Vegetation surveys were undertaken in September 1999. Details searches of all parts of the site were undertaken. Specific searches for significant plants were also undertaken. It was considered that the Subject site would have supported Littoral rainforest before clearance for sand mining. Sand mining removed all vegetation and much of the soil seed bank and destroyed the original dune structure. Following mining the area (including the Subject site) was replanted with Horsetail sheoak, Bitou bush and Coastal tea tree. The Subject site now supports three (3) vegetation communities:-

- 1. Mid-high Open Mixed Forest (Coastal tea tree/Coast Banksia/Willow Acacia with dense Bitou bush/Coastal wattle understorey);*
- 2. Mid High Open forest (Coast banksia);*
- 3. Mixed grassland and Sand plain and Disturbance.*

Most of the site is dominated by exotic and non-endemic species. Remaining communities dominated by native species (Coast banksia) are reasonably widespread and well represented in conservation reserves in northern NSW. Vegetation communities are not considered to be of conservation concern.

Bitou bush (which occurs at the site in dense groves) has been listed as a Key Threatening Process under Section 3 of the Threatened Species Conservation Act 1995). The listing is based on the threat that the species poses to native plant communities, a number of threatened plants and native fauna habitats.

The site may have supported Threatened species as Scented acronychia and Stinking laurel before clearance. Searches were undertaken for these species without success. No other Threatened, ROTAP or Regionally Significant plant species were recorded during surveys. If the site was allowed to regenerate to its original climax community, it may provide habitat for these species.

Detailed ecological surveys of the entire Casuarina Beach (then Kings Beach) estate were undertaken in 1996 and a Species Impact Statement produced (Gunninah Consultants 1996). Detailed survey work was undertaken on Lot 1 DP 811425 (Narui Land) in 1998 whilst still in the ownership of Narui Gold Coast (JWA 1998). Further surveys were undertaken in 1999 to allow the Narui Site to be incorporated into the overall Casuarina Beach development concept. This data was extrapolated to assess the habitat value of the Subject site.

Surveys recorded two (2) species of Amphibian, three (3) species of Reptile, fifty two (52) species of bird and ten (10) species of mammal (a further two species were identified to the genus level only).

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The site was considered to be of low value for Amphibians. Wallum froglets and Wallum treefrogs have been recorded from the wider locality but are considered very highly unlikely occurrences on the Subject site. It is considered unlikely that the site provides habitat for other significant species known from the locality such as the Green-thighed frog and Green and golden bell frog.

The site provides habitat for a low diversity of Reptiles, although moderate abundances of all species were observed. The site is considered unlikely to provide critical habitat for these ubiquitous adaptable species. The site is considered very highly unlikely to provide habitat for threatened species known from the wider locality such as Stephen's banded snake and the White crowned snake.

Ornithologist Stephen Debus found the site to support a low density of bird species.

No Threatened species were located during surveys and it is considered unlikely that the site would provide critical habitat for such species. It was considered unlikely that the proposed development would have a significant impact on shorebirds that may utilise adjacent sections of Bogangar Beach.

Exotic species such as the Black rat and House mouse were the only small terrestrial mammals recorded during surveys. The site is considered unlikely to provide habitat for native species, including the significant Common planigale.

The site was considered likely to support a range of Microchiropteran bats, potentially including a number of Threatened species. A number of these species may forage at the site, although the lack of diversity and structural complexity is likely to limit its value in this regard. The site is considered unlikely to provide roost habitat for any of these species.

The Threatened Common blossom bat has been recorded widely within the Study area and was recorded on the Subject site. Detailed vegetation survey was undertaken to determine areas of high, medium and low concentrations of the forage species Coast banksia. This data was then provided to Mr Greg Richards (bat specialist) who concluded that the proposed development would not place a viable local population of the Common blossom bat at risk of extinction.

The Black flying fox may also utilise site habitats. Given the small percentage of the likely total forage range that will be affected by the proposed development, impacts are considered unlikely to be significant.

A number of Threatened species were considered in the Section 5A analysis. It was concluded that the proposed development was unlikely to have a significant impact on a local population of any of these species.

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The Subject site forms part of the large (disturbed) habitats north of Cudgen Nature Reserve all the way to Kingscliff. A small diversity (based on survey results) of fauna will be moving through the Subject site. It must be considered that when development on all surrounding portions of the Kings Beach Estate occurs in the near future it will be impossible for the site to form part of an important fauna movement corridor in this locality.

The proposed development will result in a loss of habitat for species recorded from the site. In a regional sense, the loss of habitat is considered to be inconsequential for common species. It was considered that the loss of habitat for threatened species such as the Common blossom bat and Black flying fox could be acceptably ameliorated by the establishment of habitat planting areas on other parts of the Kings Beach Estate”.

Comment

Section 78(8)(b) of the Environmental Planning & Assessment Act, 1979 is as follows:-

“78(8) A development application must be accompanied by:

(b) if the application is in respect of development on land that is, or is a part of, critical habitat or is likely to significantly affect threatened species, populations, or ecological communities, or their habitats - a species impact statement prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995”.

The Species Impact Statement accompanying the development application S96/135 for Stage 1 applied to the whole of the Kings Beach site. Subsequently, advice was sought from the NPWS and Council’s Solicitors as to whether or not the Stage 4 development application and subsequent applications will need to be accompanied by a Species Impact Statement.

Council’s Solicitors advised that Council may well have already complied with the Environmental Planning & Assessment Act, 1979 in that a SIS has already been provided for the whole site and has been assessed by the Council in great detail. Accordingly, a further study would not be required.

The NPWS have advised that any decision regarding the significance of impacts in subsequent stages on threatened species, and hence the need for a SIS, must be made by the consent authority.

Section 5A of the Environmental Planning & Assessment Act, 1979 provides 8 factors which must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats.

The Flora and Fauna report provides this Section 5A assessment and concludes that the development is not likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

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Taking into consideration the advice from Council's Solicitors, the Section 5A assessment accompanying the original development application and the further 8 point test report submitted on 23 May and the letters from the NPWS dated 16 May, 2000 and 24 May, 2000, it is considered that the development is unlikely to have a significant effect on threatened species, populations, or ecological communities, or their habitats and an SIS is not required.

Effect on Landscape/Scenic Quality of the Locality

A proposal of this scale and in this location will have an effect on the landscape and scenic quality of the locality by transforming the coastal landscape into an urban one. This affect is accepted due to the history and zonings of the site and the commitment given by the LEP amendment and the DCP for residential development in this location. The more scenic areas in the land are protected by the 7(f) Environmental Protection (Coastal Lands) zone.

Earthworks will modify the topography of the land, but not significantly.

The applicant has submitted a typical streetscape concept which is very satisfactory.

The visual impacts will be reduced by appropriate buffering and landscaping.

The development will be consistent with the general character of new residential estates.

Access, Transport and Traffic

Issues in relation to traffic, access and road layout have been reviewed by Council's Engineering Services Division, Subdivision Engineer and the Local Traffic Advisory Committee. The comments made by the Local Traffic Committee which are outlined in this report will be incorporated, where necessary, into the design of the proposal to improve the layout.

The width of roads 3, 4 and 5 are of concern being only 6m wide especially as AUSTROAD rules prohibit all parking on footpaths. It is considered that 7.5m would be better in accordance with the new AUSTROAD rules and with vertical kerb on all new roads now.

AUSTROADS Part 15 states that pine log, chain wire or post and wire fences should not be within 1m of a cycleway. Any consent will be conditioned appropriately.

The garbage vehicles for Solo Waste (Council's Garbage Contractor) are having problems with turning circles. Solo Waste have advised that the turning radius for the garbage vehicles is 11.2m while the total overhang of the vehicle is 12m. Council's current DCP16 - Subdivisions Manual provides for cul-de-sacs to have a radius of 9m. These conditions lead to the garbage vehicle having to do 3 point turns in restricted areas, leading to potential major safety problems due to unsupervised turning.

The concept layout plans for Kings Beach Stage 4 contains a number of streets with designs of "T" and "Y" heads which, in Solo Waste's submission, create significant risk management/safety issues. However, the conclusion is that the current quality of

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residential amenity design should be supported and not compromised by the garbage vehicle manoeuvring optimal requirement. It is considered that the proposed layouts should be reviewed in light of the above, otherwise the garbage service may not be able to be provided to some properties.

Character, Location, Siting, Design and External Appearance, Size and Shape of the Land etc

This development although similar in some ways in character to other residential estates, is a unique development on the Tweed given its close proximity to the Coast. Subsequently, the proposal has attempted to optimise its proximity to the Coast creating a unique estate.

Nevertheless, a number of design issues have been identified, as discussed in this report which include the subdivision in the 7(f) zone, location of parks, infiltration basins and drainage reserves in open space areas and a number of traffic/road issues.

One other issue is the width and depth to frontage ratio of the beach front lots. These lots generally have a width of 12 metres with a depth of 60 metres. There were initial concerns that difficulties would arise in designing and siting a complying dwelling on the lots given that they have a 12m frontage and normal side boundary setbacks are 900mm and also having such narrow lots may create design and siting problems to allow consistency with Council's DCP39 - Energy Smart Homes Policy. As discussed in the section titled DCP39 - Energy Smart Homes Policy, the lots on the east/west axis (beachfront lots) are narrower than those lots aligned on a north/south axis and this is not consistent with the DCP and could have undue shadow effects on the beachfront lots.

The applicant has provided plans showing that dwellings of pre-established and innovative design can be easily accommodated on a beachfront lot. These plans indicate that a dwelling can be sited on each beachfront lot with a side setback of 900mm to the eaves and a maximum site coverage of 50%. In addition, the applicant has also provided examples of dwellings constructed on narrower lots (10m wide) on the Gold Coast.

In view of the detailed controls proposed in the Architectural Design Regulations (ie. setbacks, site coverage, building envelope) which are to be enforced by the Architectural Review Committee and the additional information supplied, as discussed above, it is considered that a dwelling is likely to be sited on these narrower lots.

Subsequently, any dwelling erected on a beachfront lot will need to comply with the Architectural Design Regulations and Council's statutory guidelines.

Architectural Design Regulations

In order to ensure that the development is unique the applicants have prepared *Architectural Design Regulations* (ADR) for Kings Beach. These ADR's are intended to encourage the design of the houses to reflect particular informal character, openness and individuality appropriate to the beach community.

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The ADR provide that all building works, (including external construction, alterations, additions, repairs, including painting and repainting, construction and alterations to any fence, retaining walls, exterior lighting, driveways and landscape and tree planting) will need to comply with the ADR and will also require approval from an Architectural Review Committee (ARC). The ARC will include those persons appointed by the applicant, and will more than likely consist of architects etc. Approval from the ARC for any building works must be obtained before applying to Council for approval. The ADR also proposes that Council will be party to assist in enforcing the ADR.

Council's Building Unit has reviewed the proposed ADR's and provide the following comments. Accordingly, it is considered that Council should not be party to the enforcement of this complex design regulations, and Council should only process new dwelling development applications and construction certificate applications that have been endorsed by the ARC. In addition, any endorsement or approval by ARC is not to substitute for or guarantee development approval from Tweed Shire Council.

Building Unit Comments

'Having received the ADR, the submission dated 28 January by Crone, McKerrell Lynch and reviewed the 88B instrument proposed for Kings Beach the Building Control Unit offer the following comments.

It is the Building Control Unit's belief that the ADR should not be included in any legal document to be administered by Council.

Notwithstanding that, some aspects of the ADR such as setbacks, fencing etc will need to be incorporated into a document such as the 88B or a DCP for control by Council.

This will allow the developer to amend the ADR without reference to Council as the issues relevant to Council would be bound by the 88B or DCP.

Accordingly, Building Control will require the following condition to be incorporated in the subdivision approval in both the DCP and 88B Instrument.

- "1. The minimum setback from the street front boundary to the wall of a dwelling is to be not less than six (6) metres.*

The minimum setback from the street front boundary to the wall of a single garage is to be not less than 5.4m and not less than 5m to the wall of the double garage.

Special design elements such as verandahs, entrances and the like constructed of open design shall be setback a minimum of 3m from the front street boundary.

- 2. The minimum side boundary setback for any dwelling shall be not less than 900mm to the wall and not less than 6.75m to the outer most projection of the eave.*

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3. *The minimum setback from a secondary street boundary of a corner lot to the wall of a dwelling is to be not less than 3m.*
4. *For beach front lots, the rear building line is the boundary line between the 2(e) and 7(f) zones. No structures are permitted within the 7(f) zone.*
5. *All fencing east of the 7(f) and 2(e) zone boundary shall be a minimum height of not more than 1.2m”*

The above conditions are to include wording to allow for variation by Council should it be expedient to do so on the merits of each submission to Council, ie. or as otherwise varied by Council”.

Infiltration Basins and Drainage Swales in Open Space (Dual Usage)

The application proposes to locate a number of infiltration basins and drainage swales within the north/south open space corridor to the east of the site. An east/west drainage swale is also proposed through open space (passive and active) and Management Lot 9 (active open space). Concerns have been raised in relation to the appropriateness of these basins in the open space. These may create maintenance problems for the open space and also for the basins and swales themselves. In addition, the infiltration basins and drainage swales may restrict the amount of useable open space available in this locality, and detract from the amenity of this land. With the basins and swales so close to the Crown Reserve there is also the possibility of runoff escaping into the Reserve, which is not satisfactory as all runoff from the development site is to drain to the west only. Council's Manager of Recreation Services has advised that the primary function of these areas is to provide appropriate open space to the community. Any proposed dual usage should be planned so as not to compromise this function. Consequently, open drains proposing slopes of <20 degrees should be avoided.

In an attempt to resolve the above problems, the applicant was requested to redesign/relocate the infiltration basins. This included redesigning the basins so that they compliment the open space and do not detract upon it and create any maintenance problems. Possible landscaping of these areas will also compliment the basins. To support the redesign the applicant is also to provide a hydraulic analysis and infiltration rates for these areas. These details have been submitted to Council.

To support the dual usage of the open space the applicant has provided a profile and schematic showing how it is planned to integrate the infiltration basins in the open space. The applicant has also provided the following:-

“Further to the meetings of 28/3/00 and 3/4/00, we have pleasure in submitting for your consideration a profile and schematic showing how it is planned to integrate the infiltration basins in the proposed 7(f) zone foreshore area with the public walkway/cycleway and the individual common gates from the private lots to this foreshore area.

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As discussed at the earlier meeting, we have prepared this illustration to assist Council in demonstrating how the various elements are intended to be integrated without impacting upon either the integrity and/or functioning of the infiltration basins and the public open space with associated walk and cycleways.

Cardno MBK and Gamble MckInnon (Casuarina's landscape architects) in association with MGI, have responded to your specific concerns by showing how the multiple 300mm deep infiltration basins, planted with endemic dune grasses are intended to be interspersed within the public foreshore open space area in such a way as to function both as 'indigenous' landscape features but with the necessary engineering features to accommodate runoff as required.

The example attached herein has taken areas in the Stage 2 Application as a basis for examining how all functions are proposed to be integrated. Specifically, the areas immediately west of the foreshore public open space, include:

- the private residential lots and public access to the beach;*
- public open space (ie. public parkland area which extend west from the foreshore area into the development area proper);*
- the commercial land use area (exemplified by the resort sites); and*
- the road reserve with its associated parking which together form part of the proposed Beachside Village.*

As will be noted, reference is made to the curvilinear nature of the walkway/cycleway in order to provide greater interest while removing any tendency towards a 'gun barrel' approach. There will be continuous visual transition between the public and private open space, while chain linked timber platforms are proposed to visually punctuate pathway intersections and control bicycle speed.

The linked timber walkway to Casuarina Beach shown east of the 50 year erosion line is also at the intersection of the public accessway through private lands to the foreshore walkway/cycleway. It is intended that the 2.5 metre foreshore pathway will be coloured concrete for both pedestrian and cycle use.

It is also intended that the natural dune vegetation regrowth will be supplemented with additional endemic plantings.

The Management Lot boundary is shown as it highlights where, at the southern area, the foreshore park and walkway will be developed in the eastern most portion of Lot 500, for which DLWC and Council's (as the Trustee) consent is required in order to lodge the DA for these foreshore works.

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Cross-sections have been presented to assist in demonstrating how the east/west land use associations are intended to be handled.

We trust that this pictorial exhibit and the accompanying explanation as to how the client intends to treat this important area, will satisfy Council's question as to how the multiple foreshore functions can be attractively deigned whilst also ensuring that the engineering infrastructure can not only work effectively, but can do so in an integrated manner".

In addition, the applicant has also amended the figures and has decreased the linear size of the infiltration ponds in the north south open space area.

The Manager, Recreation Services has taken the above information and details into consideration and now considers that the proposed infiltration basins are acceptable in the open space and are unlikely to create any significant adverse impacts on the amenity of the open space.

In addition, the east/west drainage swale will be piped and any consent will be conditioned appropriately.

Subdivision Engineer Comments

In relation to the Hydraulic calculations and infiltration rates provided by the applicant, Council's Engineers have provided the following information in relation to stormwater drainage.

"The applicants have submitted further documentation to support their proposal for the infiltration system and the stormwater management scheme. The following comments refer to the applicants proposal in relation to both the hydraulic analysis and the infiltration system.

1. Stormwater Hydraulic analysis

The hydraulic characteristics of the swale system was modelled using the HEC-RAS computer model. The output from this analysis estimates flows for the Q5 and Q100 events.

This analysis estimated the discharge at outlet 7 as follows:

Q5 - 4.0m³/s

Q100 - 9.5m³/s

It must be noted that the applicants have assumed that the discharge flows have been reduced by the following infiltration/seepage losses;

Q5 flow reduced by 35%(20% runoff lost into sandy soil + 15% infiltration)

Q100 flow reduced by 25%(20% runoff lost into sandy soil + 5% infiltration)

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Comment

It is apparent from the advise submitted from the applicants that the proposed stormwater drainage system is reliant on infiltration as a method to reduce the discharge at outlet 7.

Perusal of Figure E18C shows the Q100 water surface profile along the eastern swale. The Q100 water surface is clearly below the surface level of the residential allotments as the 7(f) land does not become inundated.

If the infiltration reduces as a consequence of clogging it is unclear what impact this will have on the Q100 water surface levels.

Discussion with applicant

The applicant was contacted by phone and asked what would happen if the model was run assuming no infiltration. They advised that this exercise had already been undertaken and the results concluded that no residential allotments would be flood effected.

Following the above advice the applicant were been requested to produce a plan showing the allotment layout with the Q100 flood line superimposed over the top of the layout. The applicant have agreed to produce this plan.

2. Infiltration

The applicants advise that the average infiltration for the 8 sites measured was slightly in excess of 50m/day. Further, they advise that they have adopted an infiltration rate of 1 m/hr and argue that this rate is entirely supportable and suitably conservative for engineering design purposes.

Based on the infiltration rate of 1 m/hr and the calculated design flow rates the infiltration basins were sized to adequately handle all runoff from the catchment for events up to and including the 1 year event.

Comment

The applicants argue that the adopted infiltration rate of 1m/hr is conservative given that the measured rates are 2m/hr. They advise that the adoption of 1m/hr allows for significant clogging to take place within the soil and therefore is conservative for engineering design purposes.

It would appear that the success of the infiltration basins are dependant on a regular maintenance program to ensure that clogging does not occur.

Discussion with applicant

The Infrastructure Engineer has discussed the proposed infiltration rate of 1m/hr with the applicant. After considerable discussion the applicant agreed to adopt an infiltration rate of 0.25m/day.

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The applicant agreed to re size the infiltration basins using an infiltration rate of 0.25m/day and a three(3) month design storm(Q3month). The Q3 month being 45% of a 1 year storm (Q1).

Conclusion

If the applicant runs the hydraulic model for the Q100 event assuming no infiltration and the results of this analysis indicate no inundation to any allotments, it is considered that the stormwater system for the development will be satisfactory.

In relation to the infiltration rate of 0.25m/hr no conclusion can be provided at this stage. Any conclusion would be subject to the applicant re sizing the basins and showing that they fit within the available area. Obviously, the applicant must prove that the infiltration basins will not adversely effect the open space requirements. Particularly if the size of the basins has to be increased due to the reduced infiltration.”

It would appear from the above comments that from an Engineering prospective the proposed infiltration basins and drainage swales are likely to be satisfactory. However, as indicated above, it is recommended that the eastern bund of the north/south drain shall be raised so that it provides 300mm freeboard above the design Q100 water surface level.

Obviously raising this bund may adversely impact on the amenity of the open space which is not satisfactory.

It is agreed that the east/west drainage system that traverses the open space and lot 9 should be piped. This will allow better usage of the open space (passive and active). Any consent will be conditioned appropriately.

Utility Services

The Stage 1 linen has not been lodged and therefore Works as Executed Plans for water supply have not been received demonstrating that each management lot has access to reticulated water supply.

Construction of the sewer rising main for Stage 1 has commenced, however the reticulation to the management lot has not been approved, constructed or bonded. **These matters are addressed in the recommended conditions.**

Landscaping

Street trees will be provided or contributions obtained.

The proposal will involve the removal of a substantial amount of vegetation which in part has been accepted due to the zoning of the land and the DCP which has been prepared.

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The landscape master plan for Stage 2 provides for extensive landscaping over the site. Landscaping is primarily provided along the streets, roads and within the open space. The principle goal of the landscape works is to provide the Kings Beach community with a safe, secure environmentally sustainable landscape, which facilitates a broad range of private and community based recreational activities.

The landscaping shall improve the amenity of the site and should also ensure that the maintenance of those areas is minimised. It is considered that landscaping this site should be undertaken in accordance with the landscape master plan for Stage 2 and the details provided with the application.

Natural Hazards

No known natural hazards are likely to affect the site other than coastal processes.

This together with the Crown Reserve to the east should provide adequate protection to the site.

Social/Economic Effect

As discussed in Section (a)(i) of this report, the TLEP 2000 requires that social impact assessment be provided for developments that may have a significant social or economic impacted. It is considered that this assessment is not necessary.

The proposal will provide additional dwelling lots to cater for some of the growth along the Tweed Coast. The proposal will increase demands for services and facilities some of which will be catered for on the site when various stages of the Kings Beach development are released. There will be an increased maintenance burden for Council for the additional structured and casual open space. However, this open space is required to meet the need of the future population.

The proposal will provide employment opportunities both during the construction and post construction phases. This will likely improve the economy of the locality and the Tweed with potential spin off effects.

In addition, the Kings Beach development will also provide additional rate revenues for the Tweed Shire Council.

(c) **The Suitability of the Site for the Development**

As discussed throughout section (b) of this report it is generally considered and accepted that the site is suitable for the development, subject to some redesigning and other issues as identified in this report which need further review. The site has a long history and has a commitment given by the LEP amendment and DCP for residential development in this location.

This report has identified a number of issues which indicate that the development is not suitable for approval until they are satisfactorily resolved. These issues include compliance with the Stage 1 consent S96/135, outstanding advice from NPWS in relation to Flora and Fauna Assessment and compliance with Stage 1 consent

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conditions, owners consent from DLWC, dual usage at open space to include infiltration basins and drainage swales. Implementation of the Architectural Design Regulations, compliance with the Deed of Agreement and inconsistency with DCP11.

It is concluded that should these issues be resolved it is considered that the development is suitable to the site and locality.

(d) Any Submissions made in accordance with the Act or Regulations

Public Submissions

The application was not statutorily required to be advertised.

Public Authority Submissions

See consultation section of this report.

(e) The Public Interest

A number of State Government Planning Policies (SEPPs) and other planning guidelines (LEPs and DCPs) have relevance to this application. All these policies and plans were discussed in Section (a) of this report.

As discussed in Section (d) the application was not statutorily required to be advertised.

ENGINEERING SERVICES DIVISION COMMENTS

As discussed in Section (b) of this report titled "Access, Transport and Traffic" a number of design issues have been identified which need to be amended. It is considered that these issues can be adequately conditioned on any consent.

Water and Sewer Engineer Comments

See comments under "utility services" of this report.

Infrastructure Engineer Comments

"A Drainage Comments.

1. General Land Form and Drainage

This application covers Management Lots 3,4 & 9 and Part Lot 13 created by Kings Beach Stage 1 consent. The land is generally east of the relocated Coast Road centrally located between the southern Casuarina Beach Stage 2 and the northern Casuarina Beach Stage 3.

Figure E108 REV C shows the proposed final landform for all of the subject land. Figure E108 REV B indicates that only the land containing proposed residential lots, proposed residue lots 55 & 56 and proposed open space lots 100 and 101, and associated roads will be reformed at this stage and the balance of the land (being most of proposed lots 54 and 99) will remain at current levels until later applications. The land now generally slopes upwards in an easterly direction from the new Coast Rd to a ridge line on the Old Coast then slopes downwards to the coast boundary. The proposed landform shifts the ridge line

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to the east to a location near the west side of the eastern most north/south internal roads (No. 4 and part No. 5).

Cardno MBK Figure E107 Rev B shows natural surface levels and Figure E108 Rev C shows proposed finished surface levels. Proposed land levels at the northern boundary of the site show filling onto adjacent land being Management Lot 5. Although this is now in common ownership with the subject land, a consent condition will be required to address this issue.

Drainage is to be collected in internal subdivision roads by conventional underground drainage.

The east sloping catchments are to be discharged into north and south flowing swale/infiltration drains at the coastal boundary. These drains junction north of proposed lot 56 and turn into a west flowing trunk drain which proceeds via open space lands to Controlled Outlet No. 7.

The west sloping catchments are proposed to discharge into the west flowing trunk drain, except for a drainage outlet from road No. 2 which is proposed to discharge onto open space lot 100 prior to ultimate discharge to Controlled Outlet No. 7. This drainage discharge outlet onto proposed open space land is unsatisfactory and is proposed to be amended by consent conditions.

2. Site Drainage

2.1 Background

The Stage 1 DA provided a SW quality strategy based on “Statement of Evidence - Report on Master Drainage and Stormwater Management Strategy by PN Casey, September 1998” This proposed:-

- “direct infiltration of “clean” water into the sands, eg roofwater;*
- modular pavements in hardstand, carpark areas;*
- vegetated filter strips on verges, and development edges adjoining public open space;*
- permeable sumps at building down pipe ends;*
- drainage catch basins in the “treatment train”;*
- gross pollutant traps (GPTs) such as HumeceptorTM on lateral drainage lines outletting to the trunk drainage network from development areas;*
- underground infiltration cells (Atlantis Drainage Cells a product developed for such purposes as stormwater quality treatment), placed offline, but fed from the trunk drainage system downstream of GPTs.”*

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Pat Casey also proposed an “Alternative Water Quality Treatment System” in Appendix A of his evidence. The “Alternative system” was proposed to comprise the following elements:

- *“Catch basins (EPA Guidelines, Ref. 9, Section 4.6)*
- *HumeceptorTM Gross Pollutant Traps*
- *Sediment Traps (EPA Guidelines, Ref. 9, Section 4.3)*
- *Infiltration basins incorporating wetland (EPA Guidelines, Ref. 9, Section 5.6)”*

This application includes a report from Cardno MBK “Kings Beach Development - Proposed Stormwater Treatment & Disposal Incorporating The Alternative System” this report in general terms proposed (section 2.2)

- *infiltration of roof runoff*
- *discharge of road drainage through catch basins*
- *further treatment of road runoff by grass swales*
- *final treatment by infiltration basins*

Since the submission of the application there have been many meetings between the developers representatives and Council officers regarding drainage and water quality issues. Many amendments to the original plans have been submitted and at the time of writing this report still further reports on hydraulic analysis and infiltration basin sizing/location/design are awaited from the applicant’s consultants (Cardno MBK).

Cardno MBK letter 21/2/200 contained Attachment B “Water Quality Management and Monitoring Program” containing proposals for water quality management in the operational phase, water quality objectives, sampling and monitoring program, erosion and sediment control plan. For the operational phase it proposed a treatment train consisting of:

- *Disposal of roof water drainage by on-site infiltration for individual properties*
- *Collection of sediment and gross pollutants via catch pits*
- *Installation of Humeceptors at locations where oils and greases may be generated*
- *Transport of stormwater runoff by grassed swales and vegetated strips*
- *Screening of outlets to infiltration basins to capture gross pollutants*
- *Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins*

Conditions will be recommended to incorporate the above stormwater quality management principles and the provisions of Council’s Stormwater Quality Management Plan.

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2.2 Lawful Point of Discharge

This DA is for subdivision of Management Lots 3,4 & 9 and Part Lot 13.

The proposed point of discharge for this application is Controlled Outlet No. 7.

The proposed point of discharge at Controlled Outlet No. 7 is satisfactory and was anticipated in the stage 1 approval. Stormwater passing through Outlet 7 will discharge by overland sheet flow across passive open space lot 8 to Cudgen Creek.

2.3 Proposed Drainage System

2.31 Drainage Layout

It is understood that roof water from dwellings will be infiltrated on each individual allotment which will reduce the volume of stormwater runoff to the public drainage system.

The proposed subdivision lots front roads Nos. 1, 2, 3, 4 & 5. These roads are provided with conventional underground drainage.

Eastern flowing catchments. Q₅ road drainage is to be piped through west/east pathways and parts of proposed open space lot 101 to north and south flowing coastal swale drains. These west/east pathways and open space lands also convey Q₁₀₀ overland flows. Stormwater (up to Q₁₀₀) is to be conveyed along proposed coastal swale drains (with associated infiltration basins) to a junction north of proposed lot 56 then turn into a west flowing trunk drain which proceeds via open space lands to Controlled Outlet No. 7. (The coastal and west flowing drains are in proposed dual use area also containing walkway/cycleway and public open space/landscaping. This proposal is satisfactory from a drainage perspective, but, other units will need to determine its suitability for and compatibility with the other proposed uses.). The applicants plan Cardno MBK Figure E121 Rev A "Drainage Outlet Path, Cycleways and Infiltration Ponds" shows schematic layouts of infiltration basins in the coastal and west flowing swale drains and in the future proposed open space area in proposed Management lot No. 9 (now proposed lot No. 100).

West flowing catchments. Q₅ drainage from part Road No. 3 and the southern end of Road No. 2 is proposed to be piped and Q₅ and Q₁₀₀ flows directed through an easement adjacent to proposed lot 9 to discharge on proposed open space lot 100. Q₅ drainage from part Road No. 5 and Road No. 1 is proposed to be piped and Q₅ and Q₁₀₀ flows directed to the west flowing trunk drain close to Controlled Outlet No. 7. There are a number of unsatisfactory aspects to these proposals. It is not satisfactory to discharge drainage onto proposed open space lot 100. It may also be unsatisfactory to discharge Road No. 1 and No. 5 drainage close to Controlled Outlet No. 7 as this may be downstream of required infiltration basins. Conditions will be drafted to amend these proposals.

2.32 Drainage System Capacity

Cardno MBK Figure E116C REV A contains a long section of the trunk drain (except the northern, south flowing coastal drain adjacent to proposed lots 69-98). The submitted finished surface cross sections (Figure E111 REV A) provide cross sections of the coastal drain at 1000m, 1300m, 1600m and 1900m. Figure E13B shows a revised cross section at

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1000m to allow for increased water surface levels shown on E116C REV A but the other cross sections are not revised. However when natural surface levels to the east (coast) side of drain are plotted on the long section it indicates that the Q_{100} water surface profile will be higher than these natural levels between 100m and 1350m. This implies that a bund wall of significant height will be required on the coast side of the drain to contain the runoff with standard 300mm freeboard.

Conditions will be required to ensure adequate freeboard on the coastal side of the drain.

2.4 Infiltration

2.41 Purpose of Infiltration

Infiltration fulfils two purposes. Firstly it reduces the volume of stormwater runoff, enabling a reduction in the size of downstream drains. Secondly it improves stormwater quality by removing some water born pollutants.

For water quality treatment, infiltration is usually designed to capture the runoff from up to a 3 month ARI storm ($Q_{0.25}$) which will capture over 90% of annual runoff.

2.42 Dual Use Issues

The applicants consultant Cardno MBK has submitted "Consolidated Properties Pty Ltd, Casuarina Beach, Infiltration Basin Analysis, March 2000" to supplement information submitted with the application. This analysis proposes location of infiltration basins in public open space associated with the coastal walkway/cycleway and in areas of open space in management Lots No. 9 & No. 10 and goes on to say "Council officers have indicated that these layouts are satisfactory, ". It would appear however from comments made at a meeting held 28 March 2000 between Lenen, Consolidated Properties and Council representatives that this issue is not settled. There is a possibility that proposed drainage infiltration basins may not be compatible with the open space/walkway-cycleway uses on the coastal frontage and may also not be compatible with the active open space uses of Master Lot No. 9.

At some meetings it has been suggested that the infiltration basins could be turfed and on other occasions that the basins should only be vegetated with sparse coastal tussocky grasses, with significant areas of bare sand. From an infiltration perspective the latter would be acceptable, but, a turfed surface would be unacceptable due to an inherent loss of surface permeability.

A meeting with the Manager Recreational Services 13 April 2000 explored dual use (drainage/open space) issues. MRS indicated that slopes in excess of 5% which would be required to define channels and create workable drainage invert levels would be incompatible with open space objectives.

For the purpose of this report a condition can be drafted requiring a certain area (sq m) of infiltration basin for each catchment, together with criteria for the basins design and management. Other units will need to determine compatibility with other proposed uses.

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2.43 Infiltration Basin Sizing

2.431 Permeability

The applicant's infiltration analysis contains percolation tests in accordance with Appendix B of AS 1547, Disposal Systems for Effluent from Domestic Premises which have measured permeabilities ranging from 44 to 57 metres per day. For design and sizing of infiltration basin purposes they have adopted 24m/day.

There is no current Australian Standard for design of stormwater infiltration systems. In the absence of such a standard the applicant has used the sewerage effluent standard AS 1547 to derive permeability rates. This standard gives 1.2 - 6 m/day as typical values of permeability in sand, which are considerably less than the rates measured and proposed for design and sizing of infiltration basins by the applicant. The standard modifies raw permeability rates by a "Long Term Acceptance Rate" table (resulting in a reduction factor of up to 100 times) for sizing absorption areas. The applicant does not propose any such reduction in their raw permeability rates to allow for long term reduction in permeability due to clogging and other factors.

A condition is proposed to reduce raw permeability rates to lower values that are more acceptable for design of long term infiltration areas.

2.432 Location and Sizing of Ponds

Awaiting further information from T Johnson (Cardno MBK) and consensus within TSC on dual use. Locations could be determined at Construction Certificate stage, provided sizing and other relevant criteria are set with the development consent.

3. Stormwater Quality

3.1 Erosion and Sediment Control

The ESCP submitted with the DA and the final proposal for ESCP contained in part 5 of Cardno MBK "Water Quality Management and Monitoring Program" (1/2/200) are insufficiently detailed to serve as the basis of conditions of consent for this activity.

Council's recently adopted Urban Stormwater Quality Management Plan (prepared in accordance with a Direction EPA under Section 12 of the Protection of the Environment Administration Act, 1991) requires stormwater objectives during the construction phase of new development to comply with "Tweed Shire Council, Aus-Spec D7 - Stormwater Quality, and Annexure A - Code of Practice for Soil and Water Management on Construction Works". Proposed conditions of consent will incorporate these requirements.

3.2 Permanent Stormwater Quality Controls

The final proposal is contained in Cardno MBK letter 21/2/200 Attachment B "Water Quality Management and Monitoring Program", for the operational phase it proposed a treatment train consisting of:

- *Disposal of roof water drainage by on-site infiltration for individual properties*

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- *Collection of sediment and gross pollutants via catch pits*
- *Installation of Humeceptors at locations where oils and greases may be generated*
- *Transport of stormwater runoff by grassed swales and vegetated strips*
- *Screening of outlets to infiltration basins to capture gross pollutants*
- *Disposal of 3 month ARI stormwater flows by infiltration in specifically designed basins*

Whilst no water quality modelling accompanies this application, the treatment train proposed is similar to that proposed in the North Kings Beach (Sahben) site and would yield similar results.

Council’s Stormwater Management Plan, adopted 19 April 2000, proposes the following stormwater quality objectives for new urban development:

<i>“Pollutant</i>			
<i>Nutrients</i>	<i>Maximum permissible load that may be discharged kg/ha/year</i>		
	<i>Average year (1719mm)</i>	<i>Wet Year (2185mm)</i>	<i>Dry Year (929mm)</i>
<i>Suspended solids (SS)</i>	<i>300</i>	<i>400</i>	<i>120</i>
<i>Total Phosphorus (TP)</i>	<i>0.8</i>	<i>1.1</i>	<i>0.35</i>
<i>Total Nitrogen (TN)</i>	<i>4.5</i>	<i>6</i>	<i>1.5</i>
<i>Litter</i>	<i>Retention 70% of annual litter load greater than 5mm</i>		
<i>Coarse sediment</i>	<i>Retention of 90% of annual load of sediment coarser than 0.125 mm</i>		
<i>Oil and grease (hydrocarbons)</i>	<i><10 mg/litre in flows up to 40% of Q1 peak.”</i>		

The proposed stormwater treatment train, as modified by proposed consent conditions, should yield results that generally achieve this standard.

4. Conclusion

Issues regarding stormwater quality, infiltration, erosion and sediment control can be addressed by consent conditions.

Dual use issues for land to be used for both drainage and open space remain unresolved at this stage. If the landform resulting from drainage constraints renders designated open space land unsuitable for that purpose, then drainage may need to be undergrounded or relocated onto other land. Relocation of drainage or water quality devices onto other land

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will require the dedication of additional land and a consequent revision of the subdivision/lot layout to provide this additional land.

The proposed land reforming proposes filling onto other land, consent conditions will address this issue.”

ENVIRONMENT AND COMMUNITY SERVICES DIVISION COMMENTS

The Environment and Health Services Unit raise no objections to the proposal. The submitted acid sulfate soil management plan, water quality monitoring and management plan and the sedimentation and erosion control plan are all satisfactory and will be included as a condition of any consent.

The Building Services Unit raise no objections to the proposal. However, as discussed in Section (b) of this report the Building Unit have assessed the architectural design regulations and have identified a number of issues and have recommended that Council should not be party to the ADR.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS

As discussed, the applicant has lodged an appeal to the Land and Environment Court based on a ‘deemed refusal’. This reinforces the importance of Council determining this application.

OPTIONS

Council can either:-

1. Approve the application subject to conditions modified or as recommended.
2. Refuse the application.

CONCLUSION

This report concludes that all issues have been satisfactorily resolved or can be addressed by appropriate conditions.

This is a very significant development for Tweed Shire and, indeed, in the State. Following intensive discussion/negotiations with Lenen Pty Ltd and Consolidated Properties over recent weeks, the application is now recommended for conditional approval.

In the event that Council resolves to approve this application, the Director Development Services will write to Lenen Pty Ltd and the applicant requesting discontinuance of the current deemed refusal appeals and withdrawal of the current Section 96 application to the Court to modify condition 41(d) of the Stage 1 consent.

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4. ORIGIN: Director

FILE REF: GS4/96/135 Pt15

REPORT TITLE:

Dune Management Plan and Lot 500 Management Plan - Casuarina Beach, South Kingscliff

SUMMARY OF REPORT:

Following previous endorsements by Council of the initial Dune Management Plan and Lot 500 Management Plan (19 January 2000) for application for a licence from the Department of Land and Water Conservation, Consolidated Properties engaged Aspect North to prepare a revised Plan. Following extensive research and discussions with the stakeholders, that revised Plan was submitted to the Director of Development Services on 27 April, 2000. After further negotiations, the Director of Development Services has decided to give approval to the Dune Management Plan and Lot 500 Management Plan in accordance with Conditions 35 and 49 of the Development Consent for the Stage 1 subdivision Kings Beach South as issued by the Land and Environment Court - subject to the submission of an Addendum to fully respond to the letters from Department of Land and Water Conservation.

RECOMMENDATION:

That Council:-

1. Notes that the Director of Development Services will issue appropriate approvals for the Dune Management Plan and Lot 500 Management Plan in accordance with Conditions 35 and 49 of Development Consent S96/135 issued the by the Land and Environment Court in December 1998 subject to an Addendum (to be integrated into the final plans) to respond fully to the Department of Land and Water Conservation's comments (letters of 16 and 25 May, 2000); and
2. Notes that this approval replaces the decision made by Council on 19 January 2000 to approve the Dune Management Plan and Lot 500 Environmental Management Plan as originally submitted.

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REPORT:

Council resolved on 19 January, 2000 as follows:-

- “1. Council confirms its acceptance of the Dune Management Plan and Lot 500 Management Plan as lodged by Lenen (as amended) and directs its Director of Development Services to confirm to Lenen and appropriate authorities, the acceptance of the Dune Management Plan and Lot 500 Management Plan and support for the issue of necessary licences for the work to proceed.*
- 2. The developer obtains the necessary licensing from the Department of Land and Water Conservation for dune management works on the coastal reserve.”*

A copy of the report by the Director of Development Services and the resultant resolution is Annexure 1.

The Minister of Land and Water Conservation and his Departmental representatives made it clear that the Plan as then submitted was not acceptable for the issue of a licence.

Consolidated Properties Group Pty Ltd then engaged Aspect North to prepare a revised Plan. Aspect North submitted the resultant revised Plan to the Director, Development Services on 27 April, 2000. This revised Plan is Annexure 2 to the report - including an Addendum which was submitted by Aspect North on 19 May, 2000 in response to comments by DLWC and Council's Manager of Recreation Services.

The letter from Department of Land and Water Conservation (DLWC) commenting on the Plan as submitted on 27 April, 2000 is reproduced below.

“I refer to Steve Pink's letter from Consolidated Properties to Tweed Shire Council dated 27 April, 2000.

The following comments are supplied in respect of the new Dune Management Plan submitted by Aspect North dated 27 April 2000 and attached to the subject Consolidated Properties letter.

No detailed comment is made re editing issues. Concern is however expressed at the usage of “should” rather than “shall” or “are to be”. Tables also appear to have been deleted which reduced the clarity and prescriptive nature of the plan.

Though representatives of Lenen Pty Ltd were reportedly responsible for the changes between the April 2000 author's version of the plan (that the author's submitted to Aspect North) and the 27-4-2000 plan submitted to Tweed Shire Council and DLWC, it is understood Lenen Pty Ltd have not yet endorsed the 27-4-2000 plan.

I also refer to the agreement reached by the various parties at the meeting held on 5-4-2000 at the NOREDO offices in Lismore.

DLWC regards the 27-4-2000 plan as acceptable provided the following matters are adequately addressed.

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1. *Plant densities, mix and distribution are clearly identified.*
2. *An associated plan is prepared and implemented to form the basis of effective consultation with adjoining residents.*
3. *Dune access is planned at appropriate locations and intervals.*

Elaboration is provided in respect of these three points:

1. *A key part of the plan should be the detailed prescription of planting densities and the mix of species for different parts of the subject land.*

Tables (and correct detail) are needed to adequately identify species densities/mixes for each zone and management unit.

Variable planting densities to take account of existing plant densities need to be identified. The authors are familiar with these details.

The proposed communities 4r and 4s should be planted in a ratio of 3:1.

2. *DLWC seeks that within six months of commencing the implementation of the Dune Management Plan a plan of action is prepared, in consultation with and to the agreement of DLWC and Tweed Shire Council, for liaison with adjoining residents regarding:*

- *background information on coastal processes, coastal dune management and dune vegetation/management*
- *information on the work being carried out on Lot 500 and the Crown (public) land status of Lot 500*
- *opportunities for community participation in the dune/vegetation management.*
- *responsibilities and rights of freehold owners and Council as Reserves Trust Manager.*

This Plan to be implemented over the five years of the project.

3. *Numerous accesses are provided in the Casuarina Beach Revised Concept Plan leading to the vicinity of Lot 500. No corresponding dune accessway(s) are provided.*

As previously advised, dune accessways should be provided at 100-150 metre intervals.

The Dune Management Plan needs to specify the locations of dune accessways to address the above. Locations of emergency (4WD) access should also be shown.

If you require clarification or further information contact the undersigned on 66 72 5488”.

A further letter from DLWC was received on 25 May, 2000 as follows:-

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“I refer to your faxed letter dated 24 May 2000 and our meeting (and telephone discussion with Tony Hart) on 24 May 2000.

I also refer to my letter to you dated 16 May 2000 (a copy of which was supplied to Tony Hart) and Tony Hart’s subsequent letter to you dated 16 May 2000.

DLWC seeks to have the appropriate additional/amended tables and text included in the Dune Management Plan. This will then provide clarity and consistency between the Plan and the subsequent Development Application (DA).

The less satisfactory alternative to this preferred position is for Council to clearly identify (with the assistance of DLWC) the additional/amended information to be included in the DA to ensure the DA is acceptable to DLWC for the purposes of DLWC issuing:

- *owners consent to the lodgement of the DA,*
- *a licence under the Crown Land Act.*

Please contact either myself or Tim Rabbidge if you require clarification or further information”

Comments by Council’s Manager, Recreation Services are also reproduced below:

“With regard to the above management plan and with reference to meetings held 30 March and 5 April to discuss issues related to draft versions of the plan, and the draft plan dated March 2000, I offer the following comments.

As stated on many occasions, a concern with the plans has been to ensure it is clear in all aspects and beyond interpretation to whoever may utilise it.

Whilst the bulk of the plan is satisfactory, I have concerns with the clarity of Section 6 and Table A1 in Appendix A as exemplified below.

Section 6.2.1.3 states “For examples in dry sclerophyll planting’s the mix of 12 species has approximately one-third of shrubs and ground covers”. Of the 12 sclerophyll species, 5 are groundcovers or shrubs, not 4 as one-third would indicate. Alternatively, is this to be interpreted that as 50% of the planting’s are to be Coast Banksia, 33% of the remaining planting’s are to comprise shrubs and ground covers and the remaining 17% comprise of the 6 remaining tree species? If so, this represents a significant change in mix from the draft Plan dated March 2000. This plan proposed 60% Banksia, 30% of the other tree species and 10% herb/forb.

Section 6.2.1.3 makes reference to the frequency use category in Table A1, and Table A1 has a frequency use rating column. However, there is no key to reference the application for the use frequency rating.

Section 6.2 states ‘For the guidance of personnel employed by Aspect North, the overall ratio of littoral rainforest to dry sclerophyll in planting’s should reflect the tables at Appendix A”. Once again, for the initial planting’s in table A1, this ratio may be open to

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interpretation. For the planting's in table A2, 7 of the 18 species with a star are dry sclerophyll species. Is this to be interpreted as a ratio of 2.5:1?

Sections 6.3.2.1 and 6.4 also raise questions.

Initial planting's in zone 2 - management units 1, 2, 6 & 7 state:

- *Zone 2: tree planting will result in an overall density of 1:9.7^{m2}*

Priority planting's in zone 2 - management units 3, 4 & 5 which are to be augmented by an additional 20% of planting's state:

- *Zone 2: the priority planting will be 1:8^{m2}*

Initial planting's in zone 4 state:

- *Zone 4: initial tree planting will result in a overall density of 1:3.5^{m2} which is estimated to result in a density of 1:5^{m2} after 5 years.*

Priority planting's in zone 4 state:

- *planting will be 1:3.82^{m2} to ensure an acceptable performance of 1 tree per 5.46^{m2} after 5 years.*

Section 6.4 then states that of the one third of zone 2 will be suitable for planting and a random spacing of 1.8m is proposed, equating to a density of 1:3.24^{m2}.

Similarly, for zone 4 Section 6.4 quotes initial planting at a average random spacing of 1.5m equating to a density of 1:2.25.

The interchanging of references to tree planting's and simply planting's and densities and spacings serves to foster confusion as to the intent of the planting strategy and methods. The preservation of this information in tabular form will assist the clarity of information.

With reference to Section 8.1 dot point 2, I feel it would be preferable if a representative from the Department of Land and Water Conservation and Tweed Shire Council were included in the initial stages of the selection process on a selection panel”.

The above led to the Addendum submission by Aspect North which is part of Annexure 2 to this report. The revised Dune Management Plan was also referred to the National Parks and Wildlife Service and the Service has made the following comments in response:-

- *“The ecological concept of framework planting, that is, the planting of functional indigenous plant communities is endorsed, however the Plan requires detail on species planting ratios.*

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- *Section 9.5.1 states that the Plan requires consent from the Department of Land and Water Conservation and that a DA will be lodged with Council. Section 5A assessments will be required to accompany the DA. The Service is available to provide advice to Council on the adequacy of the species covered in the S5A assessments and the adequacy of the assessments. It is particularly important that potential impacts on threatened birds utilising the beach, marine turtles, Glossy Black Cockatoos, Queensland Blossom Bat and Common Planigale are addressed.*
- *It is proposed to utilise glyphosate to control weeds with application aerially, by vehicle and by knapsack over at least two years. It is noted that the soils are comprised of aeolian quartzose sands that have a low clay content and, therefore, do not bind glyphosate entering the system. Consideration needs to be given to potential impacts of glyphosate on the water table and dependent flora and fauna species.*
- *Further consideration needs to be given to the timing of some of the activities proposed, such as tractor slashing, to minimise the impact on threatened species.*
- *An integrated weed management strategy needs to be developed to maximise the mechanical control and their cumulative effects. For example, careful timing of the use of biological agents with the spray program is required.*
- *It is recommended that seed is collected from genetic material originating locally.*
- *Potting mix used to propagate plants for the site needs to be sterilised to remove environmental weeds and phytophthora fungus and the mulch used also needs to be weed free.*
- *A long term monitoring strategy is required which includes adaptive responses, for example, replacement of plants which do not survive.*
- *A recreation management plan needs to establish compatible recreation uses of the dunal areas which do not conflict with the rehabilitation efforts.*
- *As the plan proposes to encourage native fauna species to use the rehabilitated area, consideration needs to be given to the control of dogs, cats and foxes from the adjacent developments”.*

CONCLUSION

Based upon the Dune Management Plan submitted on 27 April, 2000, the Addendum response by Aspect North on 19 May 2000 to the comments from DLWC and Council's Manager, Recreation Services the Director of Development Services considers the Dune Management Plan and Lot 500 Management Plan are satisfactory in terms of conditions 35 and 49 of the Stage 1 development consent S96/135 subject to integration of the Addendums into the final Plans. It is recommended that Council note that the Director of Development Services will issue relevant letters of approval based upon those conditions 35 and 49 of the Stage 1 consent.

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The revised Dune Management Plan and Lot 500 Management Plan is regarded by the Director of Development Services and the Department of Land and Water Conservation as a very positive outcome - particularly with the commendable commitment of Consolidated Properties to implementation, being an estimated \$5 million worth of works.

Development applications will be lodged in the near future as required for implementation.

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