

PLANNING & ENVIRONMENT COMMITTEE**11 NOVEMBER 2009****16**

RECONFIGURING A LOT (1 LOT INTO 3 LOTS AND COMMON PROPERTY) - 96-98 CINDERELLA STREET MACHANS BEACH - DIVISION 8

L Payler : 8/13/1189 : 2207624

PROPOSAL: 1 LOT INTO 3 LOTS AND COMMON PROPERTY

APPLICANT: R MCLEOD
PO BOX 61
HASTINGS POINT NSW 2489

LOCATION OF SITE: 96-98 CINDERELLA STREET MACHANS BEACH

PROPERTY: LOT 2 ON RP721330

PLANNING DISTRICT: BARRON SMITHFIELD

PLANNING AREA: RESIDENTIAL 1

PLANNING SCHEME: CAIRNSPLAN 2005

REFERRAL AGENCIES: DEPARTMENT OF ENVIRONMENT & RESOURCE MANAGEMENT (FORMERLY EPA)
DEPARTMENT OF TRANSPORT & MAIN ROADS (FORMERLY QT)
DEPARTMENT OF INFRASTRUCTURE & PLANNING (FORMERLY DLGPSR)

NUMBER OF SUBMITTERS: NA

STATUTORY ASSESSMENT DEADLINE: 11/11/2009

APPLICATION DATE: 25/01/2007

DIVISION: 8

APPENDIX:

1. PROPOSED PLAN
2. CONCURRENCE AGENCY CONDITIONS & REQUIREMENTS
3. SUPPORTING INFORMATION TO PLANNING REPORT

LOCALITY PLANRECOMMENDATION:

That Council refuses the development application for Reconfiguring a Lot (1 into 3 and common property) over land described as Lot 2 on RP721330, located at 96-98 Cinderella St, Machans Beach, on the following planning grounds:

1. The proposal does not demonstrate compliance with the Performance Criteria of the Reconfiguring a Lot Code. In particular;
 - a. It has not been demonstrated that an adequate erosion prone area buffer zone has been provided for all proposed lots while still maintaining lots which are of adequate dimensions and area to accommodate the intended purpose, being a single residential dwelling and ancillary structures on each lot.

Specifically, it has not been demonstrated that the existing rock wall structures, which are used to justify the reduction in the erosion prone area buffer width from 400m inland from the seaward toe of the frontal dune to 10 meters from the top of the existing wall structures, are suitably designed and structurally adequate for the location and the purpose.

- b. The lots are not of sufficient area and dimensions to protect environmental features and take account of site constraints.**
 - 2. The proposal does not demonstrate compliance with the Performance Criteria of the Vegetation Conservation & Waterways of Significance Code. In particular, the development further encroaches on the riparian corridor adjacent to Barr Creek and may adversely affect the integrity of the waterway.**
 - 3. The development is inconsistent with Land Use Policy 1.2.3 contained within the Far North Queensland Regional Plan 2009-2031 in that the site is entirely within a declared erosion prone area and a Coastal Management District and is not in accordance with the relevant policies of the State and Regional Coastal Management Plans. In particular, the development intensifies permanent residential development in a natural hazard prone area and has not demonstrated that the threat of erosion has been adequately removed or mitigated by approved permanent structures.**
 - 4. The development is inconsistent with the Objective of 4.7 Mitigation of Hazards contained within the Far North Queensland Regional Plan 2009-2031 in that the development creates additional lots which is likely to increase the number of people and property exposed to potential adverse impacts of natural and climate change induced hazards. The development does not include adequate measures to identify and mitigate potential adverse impacts on the proposed lots from natural hazards.**
 - 5. The development is inconsistent with Land Use Policy 7.1.4 contained within the Far North Queensland Regional Plan 2009-2031 in that the development does not incorporate an appropriate buffer zone from the adjoining Redden Creek. In particular, the development does not incorporate adequate allowances for future waterway bank erosion, potential waterway migration over time or for overland flow interception.**
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EXECUTIVE SUMMARY:

Council is in receipt of a development application to reconfigure 96-98 Cinderella St, Machans Beach into three lots and common property.

The site is directly bordered by the inlet of Redden Creek and the Coral Sea. The site is entirely within a declared Erosion Prone Area. The northern and eastern boundary of the site is a rock revetment wall which extends outside the property to Crown land.

The applicant proposes to include the privately owned section of the wall and a ten (10) metre access strip within common property to facilitate maintenance by the Body Corporate on behalf of the three residential lots. The maintenance of the rock wall outside the property boundary would remain the responsibility of Council.

While all the proposed lots exceed the 600m² minimum lot size required within the Residential 1 Planning Area, the proposal fails to demonstrate that an adequate erosion prone area buffer has been incorporated into the design. The proposal assumes that the existing rock walls will provide adequate protective buffer for future property and persons. This assumption is not supported by any detailed engineering assessment and is not consistent with the information which is available to Council Officers. Available information indicates that the walls do not have a design capacity to provide a reasonable level of protection expected when intensifying permanent residential development in a natural hazard prone area. Intensification of residential development in an erosion prone area also has potential implications for Council's beach protection responsibilities.

Refusal of the application is recommended.

TOWN PLANNING CONSIDERATIONS:

Background

The application was received by Council on 25 January 2007. The applicant has been in negotiations with the Department of Environment and Natural Resources (former Environmental Protection Agency) as Concurrence Agency, since the information request response period began. Councils Decision Period could not commence until the Concurrence Agency Decision Period was completed on the 4 August 2009.

Proposal

The proposal involves the subdivision of the 4047m² vacant property into three lots and common property of the following dimensions:

- Lot 1 843 m².
- Lot 2 942 m².
- Lot 3 1040 m².
- Common property 1061 m². The common property will encompass the existing rock walls and a 10 meter wide strip from the top of the wall. The common property will also incorporate an access easement in favour of Council to facilitate maintenance of the walls.
- Widening of Cinderella Street by 161 m².

As the property is within the Residential 1 Planning Area, it is reasonable to assume that the three lots will accommodate a single house and ancillary structures (sheds, pools, landscaping, etc).

Code Assessment

Council must assess the application in accordance with the Integrated Planning Act 1997. Section 3.5.4 of the Integrated Planning Act states that Council must assess the part of the application only against:

- (a) Applicable codes (other than concurrence agency codes the assessment manager does not apply); and
- (b) Subject to paragraph (a)—the common material; and
- (c) If they are not identified in the planning scheme as being appropriately reflected in the planning scheme—
 - (i) State planning policies, or parts of State planning policies; and
 - (ii) For the planning scheme of a local government in the relevant area for a State planning regulatory provision—the provision; and
 - (iii) For the planning scheme of a local government in a designated region—the region’s regional plan; and
- (d) If the assessment manager is an infrastructure provider—the priority infrastructure plan.

Section 3.5.6 of IPA also allows the Council to give weight to later codes, planning instruments, laws and policies that came into effect after the application was made, but before the day the decision stage for the application started. The application was lodged on the 16 May 2007. CairnsPlan 2009 and the Far North Queensland Regional Plan were in effect before the application entered decision period on 6 August 2009.

CairnsPlan Assessment

CairnsPlan Barron Smithfield Planning District		Code Applicability	Compliance
Planning Area	Residential 1	✓	Complies.
Land Use	-	✗	-
Overlays	Hillslopes	✗	-
	Cultural Heritage Significance	✗	-
	Vegetation Conservation & Waterway Significance	✓	FAILS TO COMPLY. See comments below.
	Potential or Actual Acid Sulphate Soil Material	✓	Complies – no fill proposed.
	Bushfire Management	✗	-
	Flood Management	✓	Complies. See comments below.
	Height and Impact of Buildings	✗	-
	Operational Aspects of the Cairns International Airport	✓	Could be conditioned to comply.
General	Excavation and Filling Code	✓	No excavation or filling proposed.
	Infrastructure Works Code	✓	Could be conditioned to comply.
	Landscaping Code	✓	Could be conditioned to comply.
	Parking & Access Code	✗	-
	Reconfiguring a Lot Code	✓	FAILS TO COMPLY. See comments below.
Development Near Major Transport Corridors & Facilities	✗	-	

Vegetation Conservation & Waterway Significance Code

Redden Creek, which adjoins the northern boundary of the site, is identified as a Category 1 waterway. The riparian corridor incorporated in the site contains no vegetation.

The Code states the following Performance Criteria for development adjacent to waterways and riparian corridors:

P5 and P7 The riparian corridor adjacent to waterways must be maintained.

P6 Degraded sections of the riparian corridor must be rehabilitated.

P8 Development of premises adjoining or containing a waterway must not adversely affect the integrity of the waterway or the riparian corridor.

CairnsPlan 2009 defines the "Riparian Corridor" for the site as:

The minimum width of the riparian corridor, measured from the shoulder of the high bank to the edge of the vegetation, applicable to both sides of the watercourse is 50 meters for a Category 1 waterway.

While it is acknowledged that the defined riparian corridor contains limited vegetation (as a result of the construction of the rock revetment walls) this does not automatically eliminate the need to incorporate a development free corridor adjacent to Redden Creek. The function of a riparian corridor extends beyond the protection of existing vegetation for its environmental values. Riparian corridors also provide:

- A development free buffer area for future waterway bank erosion,
- A development free buffer area for potential waterway migration over time,
- An area to intercept overland water flows to protect water quality.

While the capacity to rehabilitate the corridor within the property boundary is limited by the rock wall, it is still necessary and possible to maintain a corridor which meets some of the functions of a natural riparian corridor.

Section 7.1 of the Far North Queensland Regional Plan 2009-2031 also addresses the importance of maintaining appropriate setbacks from waterways to maintain water quality, ecological functions and services of waterways. The Policy identifies that, where possible, buffer zones should be revegetated, and wherever practical, development needs to be setback from waterways. The Policy suggests a minimum setback of 50 meters from each high back should be adopted.

The proposed development does not incorporate an appropriate buffer zone from the adjoining Redden Creek. In particular, the development does not incorporate adequate allowances for future waterway bank erosion or potential waterway migration over time.

The approval of a residential lot (which will subsequently accommodate a residential dwelling), within the riparian corridor, further compromises the capacity of the waterway to naturally fluctuate and change and forces Council and future owners to intervene in the natural processes to protect property and persons.

Section 7.1 of the Far North Queensland Regional Plan 2009-2031 also addresses the importance of maintaining appropriate setbacks from waterways to maintain water quality, ecological functions and services of waterways. The Policy also identifies that, where possible, buffer zones should be revegetated, and wherever practical, development needs to be setback from waterways. The Policy suggests a minimum setback of 50 metres from each high bank should be adopted.

The proposed development does not incorporate an appropriate buffer zone from the adjoining Redden Creek. In particular, the development does not incorporate adequate allowances for future waterway bank erosion, potential waterway migration over time or for overland flow interception (to protect water quality).

Flood Management Code

The purpose of the Flood Management Code is to ensure that:

- All new development has flood immunity from the defined flood event;
- Development on premises will not cause significant adverse impacts on adjoining or other external premises;
- Development does not adversely impact on ecological functions including water quality or the hydraulic capacity of waterways or other drainage paths; and
- New development does not create an adverse impact on existing properties in the Barron Delta and the values of the Delta are protected.

Performance Criteria 1 of the Flood Management Code requires that:

An acceptable level of flood immunity must be provided for new development.

The site currently has ground levels which provide immunity from a Q100 flood event and storm surge inundation, as calculated under current modelling used by Council. Flood modelling for the Barron River Delta indicates that the property would be subject to a flood level of 3.0 to 3.3 metres, in an extreme flood event having a 1 in 100 year ARI. It should be noted that the estimated 1 in 100 year flood level might not represent the probable maximum flood level i.e. the maximum possible level at this location. The report associated with these modelled results states the best accuracy that can be assigned to any flood level within the Barron River Delta is +/- 0.25 metres.

Council also has requirements for new development and redevelopment where properties are in proximity to the esplanades at the Northern Beaches. The requirement has regard to storm tide and greenhouse effects in relation to building and development applications, and requires a minimum fill level of 3.40 metres and habitable flood level at 3.55 metres AHD. In this case, this requirement rather than the estimated flood level will determine the required minimum floor level.

The application plans show that following existing pad levels:

Lot 2— 3.5 to 3.8m AHD

Lot 3— 3.53 to 3.77m AHD

Lot 4—3.52 to 3.81 m AHD

The pad areas are approximately 600- 700m² on each proposed lot. Ground levels established by a survey commissioned by the applicant show a significant increase in ground levels from those recorded by Council. Council records do not include any approvals for filling of the site. No further filling of the site is proposed, so there will be no impact on the current flood storage of the site.

The State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (SPP 1/03) establishes the concept of 'natural hazard management areas'. The Guide for the State Coastal Management Plan: Mitigating the Adverse Impacts of Storm Tide Inundation (EPA, 2007) establishes a 'natural hazard management area (storm tide)'. Within the natural hazard management area (storm tide), low and high hazard severity zones should also be defined.

The intent of defining the high hazard zone is to recognise the increased threat to public safety and the potential for loss or damage to property caused by wave impacts and/or high velocity flows. The high hazard zone is where a significant discharge of water and/or dangerous breaking waves occur during the Design Storm Tide Event (DSTE). The report prepared by GHD, on behalf of the applicant, concludes that the site is not in a "High" hazard area as it is not inundated more than 1 metre (in accordance with the EPA guideline).

The proposal therefore complies with Council's requirements relating to flood management. However, the extremely exposed position of the site warrants further consideration of the site's immunity to inundation.

In particular, inundation effects of a storm tide are exacerbated by wave overtopping and localised intense rainfall which can cause coincident freshwater flooding (in this case from Redden Creek). Breaking waves and wave "run-up" can contribute to the storm tide level and the overall hazard at exposed coastal locations. Wave run up and overtopping can also potentially contribute to flooding effects and property damage. It is possible that, where extreme wave conditions are generated, considerable coastal flooding could occur without a storm tide actually exceeding the height of the frontal dune or barrier. Unfortunately, the planning provisions established to assess a specific developments risk from natural hazards do not have adequate regard to these factors.

Reconfiguring a Lot Code

While all the proposed lots exceed the 600m² minimum lot size required within the Residential 1 Planning Area, the proposal fails to demonstrate that an adequate erosion prone area buffer has been incorporated into the design. The site is directly bordered by inlet of Redden Creek to the Coral Sea and is entirely within an Erosion Prone Area. The boundary of the site is a rock revetment wall which extends outside the property to Crown land. The site is entirely within a declared Erosion Prone Area.

The application assumes that the existing rock walls will provide adequate protective buffer for future property and persons. This assumption is not supported by any detailed engineering assessment and is not consistent with the Council Officer's assessment. Available information indicates that the walls do not have a design capacity to provide a reasonable level of protection expected when intensifying permanent residential development in a natural hazard prone area.

CairnsPlan Section 1.5.4 states that assessable development must demonstrate that the Performance Criteria and the desired development outcomes expressed in that criteria can be achieved. Compliance with the Acceptable Measures nominated does not exempt the obligation to demonstrate how the Performance Criteria can be achieved. While the Acceptable Measures that are nominated in the Codes are one means by which it may be demonstrated that the desired outcomes may be achieved, the Acceptable Measures nominated may represent measures that may not be appropriate once a considered assessment of the assessable development has been undertaken.

While the lots comply with the Acceptable measure of 600m², the development has not demonstrated that the lots are of sufficient area and dimensions to accommodate the intended land use. Furthermore, the CairnsPlan 2009 Reconfiguring a Lot Code (which Section 3.5.6 of IPA permits Council to consider in its assessment) also requires that lots are of sufficient area and dimensions to protect environmental features and take account of site constraints. The proposed development does not demonstrate that the lots incorporate an adequate buffer area to protect future occupants and property from coastal hazards and the impacts of climate change on those hazards.

Erosion Prone Area

The buffer zone concept is an intrinsic part of Queensland's coastal management policy. The State Coastal Management Plan – Queensland Coastal Policy sets aside the width of coastline potentially affected by erosion over a design period (the erosion-prone area width) as a development free buffer zone.

By providing an adequate buffer zone between the seaward boundaries of the development and the shoreline, new development minimises the need for costly intervention in physical coastal processes to protect human life or property from coastal hazards in the future. The buffer allows for natural fluctuations resulting from physical coastal processes.

The State Coastal Plan policy 2.2.4 'Coastal hazards' addresses coastal hazards as a sub-set of physical coastal processes. It specifies that development in areas on the coast identified as having a risk of being affected by coastal hazards needs to be carefully considered and wherever possible, be retained undeveloped.

The site is entirely within the erosion prone area declared under the *Coastal Protection and Management Act 1995*. The erosion prone area plan SC3395 identifies that the erosion prone area on the lot extends 400m inland from the seaward toe of the frontal dune.

Appendix 3 contains aerial photos of the site from 1952 and 2004. The photos highlight the extent of change to the creek mouth and beach area adjacent to the property. In particular, it is noted that the "land" in the 1952 photo extends further coastward than it does now. The 2004 image shows the significant migration of the creek/ beach resulting in a reduction in the buffer area surrounding the lot.

With the existence of a rock revetment wall around the seaward boundary of the lot it is acknowledged that the existing erosion prone area may overestimate the erosion vulnerability of the site and there may be scope for reduction. However, given the complexity of the physical coastal processes in this location a conservative estimate of erosion vulnerability is necessary. The Department of Environment and Resource Management (DERM) has also confirmed that despite the existence of the rock wall, the site remains entirely within the erosion prone area. The DERM information sheet for "*Coastal erosion and assessment of erosion prone area widths*" incorporates the following factors for the calculation of the necessary erosion-prone area width:

- Planning period (nominated as 50 years)
- Rate of long-term erosion (metres/year)
- Short-term erosion from the "design" storm/cyclone (metres)
- Erosion due to greenhouse effect (metres)
- Factor of safety on short-term and long-term erosion estimates
- Dune scarp component to allow for slumping of the erosion scarp (metres)

It must be noted that erosion prone area widths incorporate more than just an allowance for long term encroachment onto land by the sea. The buffer also considers the impacts of short term storm events. The information sheet also provides the following guidance in relation to buffer widths in locations with seawalls.

In locations where seawalls exist and where it appears reasonable to assume that the wall location will stay fixed in the long-term in spite of possible damage from storms, the long-term component again can be deleted from the erosion-prone area width calculation. Seawalls cannot usually be considered as a barrier against short-term erosion during the planning period. Seawalls are inappropriate for short-term erosion protection as the walls may be designed to partially fail during extreme events, or the standard of the wall may be incapable of withstanding storm wave attack in conjunction with a storm tide. Furthermore, walls built by private interests are not guaranteed to remain or be maintained to an adequate standard, as they may be removed, altered or poorly maintained by the landowner or subsequent owners.

The applicant did submit a report prepared by Consultant Engineers (dated May, 2009 prepared by GHD) which discussed the feasibility of reducing the existing erosion prone area. The report clearly identifies that any reduction of the erosion prone area on this site will be related to the effectiveness of the rock walls protecting the site and states:

"provided the rock walls have been designed for an appropriate design condition, have the required statutory approvals, and have been certified as having been constructed in accordance with the approved plans, a reduction of the erosion prone area could be considered".

However, the report does not provide an assessment of whether the walls have been designed for an appropriate design condition and does not provide any calculations or assessment of the sites erosion prone area (in accordance with the DERM information sheet for “*Coastal erosion and assessment of erosion prone area widths*”). It is also noted that the report relies entirely on historical advice from the former EPA to conclude that a development free buffer of 10 metres is recommended on the site in order to allow a small buffer for localized failure of the wall and to maintain an access corridor for future maintenance of the wall.

An engineer’s statutory declaration (dated 24/07/2009 signed by Kel Bruce) has been provided by the applicant stating that the wall has been constructed in accordance with approved drawings GHD 42-11962-S010 and Colefax Clayton Smith plan no 934098-C01B. To date those plans has not been obtainable by Council and it is unclear which section of the wall is certified. It appears that the declaration relates to the east facing wall (largely Council owned and maintained).

A “Inspection Certificate/ Aspect Certificate/QBSA Licensee Aspect Certificate” (dated 10/03/2009 by Valmadre Development Consultant) provided by the applicant for the east facing wall states that:

The revetment wall was constructed in 1996. Mark Valmadre inspected the revetment wall in 2003 and provided a structural certificate at the time. Mark Valmadre inspected the revetment wall on 2/3/2009. Generally the wall was found to be in a similar state as when inspected in 2003. Ongoing maintenance of the revetment wall is required in the form of “topping up”: with shot rock min. dia. 500mm along the top edge of the revetment wall.

The certificate includes a copy of the structural design certificate (Edmiston & Taylor dated 10 April 2003 signed by Mark Valmadre) which certifies that the revetment wall (as detailed on plans 03042-01 and 03042-02) is designed and constructed in accordance with relevant Australian Standard Codes and good engineering practice. It is noted that the plan references do not correlate with the approved plans references in the statutory declaration. To date no plans have been obtainable by Council. This level of information is grossly inadequate to arrive at a conclusion that the site is no longer vulnerable to the extent of erosion reflected in the current declared erosion prone area.

Council does have a plan (GHD 42-12521-S001 dated 17/11/2004) which includes design criteria. The applicant has also provided a Structural Supervision Certificate (GHD,4212521/00 dated 7/7/2005) which certifies that the wall has been “constructed reasonably in accordance with the intent of the structural design (Drawing Number 42-12521-S001). Council Engineering Officers provided the following observations regarding the Redden Creek rock wall based on that drawing. It should be noted that no information was available regarding the seaward facing wall to permit Council assessment:

- Certification of privately owned walls relates the structural soundness not suitability for intended purpose.
- The wall is for bank protection only and is not a retaining wall.
- The site is particularly susceptible to inundation at times of swell and strong northerly winds which can create substantial waves. Wave overtopping results when a shore barrier does not contain incident wave action, so that floodwater penetrates to the protected area landward. The top of the Redden Creek wall, or overtopping level, is about RL 3.0m. This is a similar level as the Holloways Beach revetment wall built by Council to protect properties in Hibiscus Lane. While the frontages overtop regularly in Hibiscus Lane, the residences are generally protected by the natural dune behind those frontages which rises up to a metre RL 4.0m. Furthermore, the overtopping sea cannot get around the back of that dune in Hibiscus Lane. The subject property has no dune above RL 3.0m and is on the bank of Redden Creek which provides an inlet to the rear of the site. Similarly, during the construction of the Clifton Beach sea wall, the sea overtopped the temporary wall at RL 3.7m on a number of occasions. These conditions occurred with little sand in front of the walls.
- The Redden Creek wall relies on sand in front of the wall up to MHWS RL 2.57m to get the waves to break out in front of the wall. The design plans clearly state that the wall is not designed to provide protection against the effects of overtopping in the event of the beach profile eroding. Sand won't naturally be up at MHWS RL 2.57m in front of the rock walls unless there is some regular sand nourishment work. It is not possible to rely on the sand in front of these walls causing the waves to break out in front as specified by the design criteria.

Based on these simple observations, it is unreasonable to assume that the site is no longer vulnerable to coastal hazards, including erosion.

A report (DM5 Ref #44064) commissioned by Cairns City Council in 1999 by consulting engineers Patterson, Britton and Partners Pty Ltd, titled "*Holloways and Machans Beaches Seawalls Assessment and Options Review*", provides valuable observations regarding the stability and safety issues of the existing Machans Beach seawall. The report found that the walls at Machans Beach did not conform to accepted engineering practice and constituted a risk to public safety. Calculations indicated that the wall is susceptible to severe overtopping, which during design wave conditions would pose an "extreme public hazard and could lead to substantial destruction of foreshore assets". While Council has undertaken works to address immediate public safety issues under normal usage, with non-storm conditions (i.e. stabilising rocks, concrete access stairs, etc), the wall remains sub-standard and may be subject to "catastrophic failure" under design wave conditions (the severest storm that could be expected in the lifetime of the wall).

This report illustrates the fact that while an established revetment wall may provide some measure of protection from coastal hazards, it is not reasonable to conclude that a reduction in a designated erosion prone area buffer zone is warranted. It also highlights that it is not prudent to rely on existing setbacks and beach protection mechanisms in the surrounding area as an acceptable benchmark for future development. In fact, maintaining the existing standard, in spite of the current engineering knowledge, could be considered negligent. Furthermore, intensification of residential development in this area may impact Councils beach protection obligations.

The Beach Protection Authority Report, *Mulgrave Shire Northern Beaches: A Detailed Study of Coastline Behaviour in North Queensland, Australia*, published in 1984, develops planning and management guidelines for Machans Beach. The report describes the long term erosion process at the beach and the lack of sand supply from the Barron River, particularly since the mouth changed in 1939. The report points out that the erosion will continue until the long shore sand transport system recovers. The Barron River has not had an adequate flood to put sand back into the system for over thirty years. The report talks about buffers and calculates advisable widths with and without rock walls. Those recommended are greater than anything that current exists for existing development in Machans Beach. The photographs in the report from 1942 to 1982 give little confidence about developing the site with or without rock walls (refer to attachment 4).

The scope of the applicant's consulting engineers report is considered inadequate to demonstrate that the proposal does not represent an unacceptable risk in the sense that future residents and property are exposed to a predictable hazard event that may result in serious injury, loss of life, or property damage that could make a dwelling unfit for habitation. It has not demonstrated that either rock wall is designed and structurally adequate for its location and purpose. For example, the applicant does not confirm that:

- The walls are structurally adequate to allow for the scour resulting from flood and tidal conditions which can be expected in this location
- The walls are Structurally designed to withstand overtopping of the wall which can be expected in this location
- The toe of the walls are designed to accommodate potential long term erosion which is a feature of this location.

The applicant has neither demonstrated to the satisfaction of Council Officers that the existing coastal protection works will provide adequate protection from future erosion events, nor that the development is adequately designed to withstand erosion threats in some other manner (i.e. through a detailed reassessment of the declared erosion prone area). The application therefore fails to demonstrate that the proposed lots are of sufficient area and dimensions to accommodate the intended land use, which should include an erosion prone area buffer.

Furthermore, the CairnsPlan 2009 Reconfiguring a Lot Code (which Section 3.5.6 of IPA permits Council to consider in its assessment) also requires that lots are of sufficient area and dimensions to protect environmental features and take account of site constraints. The proposed development does not demonstrate that the lots incorporate an adequate buffer area to allow natural coastal and riverine process to continue while protecting increased people and property from the hazards associated with those processes.

Coastal Building Line

The coastal building line declared under the *Coastal Protection and Management Act 1995* is located 30 meters landward from the seaward boundary of the lot. The Act does not include provisions to waive this line. Amendment to the *Coastal Protection and Management Regulation* is required to alter the position of this line. No such amendment has been undertaken.

Despite this, email correspondence from the former EPA dated 15 September 2006 states that the building line is 10 metres measured from the top of the existing rock wall. This appears to reflect the setback previously approved by the EPA for a single house on the site.

Should DERM (formally EPA) choose to enforce its statutory responsibilities in the future, it is possible that works may need to be undertaken on the east facing wall to protect future structures on the proposed lots to be constructed seaward of the coastal building line. Such works may be considered the responsibility of Council.

Far North Queensland Regional Plan 2009-2031

Section 3.5.6 of IPA allows Council to give weight to later codes, planning instruments, laws and policies that came into effect after an application was made, but before the day the decision stage for the application started. The *Far North Queensland Regional Plan 2009-2031* which came into effect on 13 February 2009, before the application entered decision period. The following sections of the Regional Plan are relevant to this application.

Regional Policy 1.2 Coastal Management

Land Use Policy 1.2.3 states:

Development does not occur within an erosion-prone area that is also within a coastal management district; or within a storm tide inundation hazard area, as shown in map 4, except in accordance with relevant policies of the state and regional coastal management plans.

The development is inconsistent with this Policy. The site is entirely within a declared erosion prone area and a coastal management district, and is not in accordance with the relevant policies of the State and Regional Coastal Management Plans. In particular, the development intensifies permanent residential development in a natural hazard prone area and has not demonstrated that the threat of erosion has been adequately removed or mitigated by approved permanent structures.

As previously discussed, it has not been demonstrated that the lots created will have no future vulnerability to shoreline erosion or tidal inundation. Furthermore, the development is not separated from the foreshore by existing significant development (major access roads, houses) which could be expected to be protected if threatened by erosion.

Contrary to the State Coastal Plan, the development does not ensure the protection of people and property from coastal hazards taking into account the predicted effects of climate change, allowing for natural fluctuations of the coast to occur including as a result of sea level rise or ensure physical coastal can processes continue to occur naturally as far as practicable.

It must be noted that this assessment conflicts with the decision made by DERM as Concurrence Agency for this application. While DERM found that the proposal was in accordance with relevant policies of the State Coastal Plan, Council Officers are of the opinion that the development is not consistent. In particular the proposal is inconsistent with the following outcomes of Policy 2.2.2 Erosion prone areas:

To the extent practicable, erosion prone areas are to remain undeveloped apart from acceptable temporary or relocatable structures for safety and recreational purposes.

Where building works and activities have been undertaken within an erosion prone area, future use should not be at a greater intensity than the existing level. Redevelopment of these areas or an increase in intensity may only occur in circumstances where it can be clearly demonstrated that it would not compromise coastal management outcomes and principles.

The applicant has not demonstrated to the satisfaction of Council Officers that the site is no longer vulnerable to erosion and therefore the increase in intensity is not justifiable.

Regional Policy 4.7 Mitigation of Hazards

The Objective of 4.7 Mitigation of Hazards states:

Development minimises the potential adverse impacts of natural, industrial and climate change induced hazards and increases the resilience of people, environments, locations and economic sectors leading to a safer community and better quality of life.

The development is inconsistent with this objective because it increases the number of future people and amount of property exposed to the potential adverse impacts of natural and climate change induced hazards on the site. The development does not include adequate measures to mitigate potential adverse impacts on the proposed lots from natural coastal hazards. The development relies on the adequacy of the existing rock walls to protect future persons and property occupying the lots. However, it has not been demonstrated that the walls are suitably designed and structurally adequate for the location and purpose.

The FNQ Regional Plan recognises that development in natural hazard prone area is a significant community health and safety issue which has significant financial repercussions for government and individuals. The Regional Plan identifies the preferred approach to dealing with natural hazards is to avoid future development in hazard prone areas.

Regional Policy 7.1 Protection of waterways, wetlands and water quality

Land Use Policy 7.1.4 states:

Urban development, other than for required community infrastructure, is set back from waterways through the adoption of appropriate buffer zones, to maintain water quality and ecological functions and services of waterways.

The development is inconsistent with this Policy because the development does not incorporate an appropriate buffer zone from the adjoining Redden Creek. In particular, the development does not incorporate adequate allowances for future waterway bank erosion, potential waterway migration over time or for overland flow interception (to protect water quality).

The FNQ Regional Plan suggests that in the absence of detailed local assessment, the suggested minimum setbacks from a waterway or water body is 50 metres of each high bank of a waterway of stream order five or greater. The proposal incorporates a setback 10 meters from the top of the existing rock wall. No detailed local assessment has been undertaken by the applicant to determine whether this is a suitable alternative setback. As discussed in previous sections, this setback is considered insufficient.

REFERRAL AGENCY RESPONSE

The Department of Environment and Resource Management (formally EPA) as Concurrence Agency has assessed the proposal against the provisions of the State Coastal Management Plan- Queensland's Coastal Policy. The Department's approval is attached as Appendix 2.

The Department of Main Roads and Transport (formally QT) as Concurrence Agency has approved the application subject to conditions. The decision is attached as Appendix 2.

Lauren Payler
Planning Officer
Action Officer

Simon Clarke
Manager Development Assessment

APPENDIX 2 CONCURRENCE AGENCY CONDITIONS & REQUIREMENTS



2 March 2007

Queensland Transport

The Chief Executive Officer
Cairns City Council
PO Box 359
Cairns QLD 480
Attention: L J Payler

Dear Mr/Ms Payler

Concurrence Agency Response—Integrated Planning Act 1997 (IPA) s3.3.16

Application for: **Development Permit: ROL for 1 lot into 3 residential lots**
96-98 Cinderella Street Machans Beach
Lot 2 on RP721330
Cairns City Council Ref. 8/13/1189

I refer to the application from R Mcleod received by Queensland Transport (QT) on 9 February 2007 seeking approval for the above proposal, as indicated on the plans listed below.

Plan Number	Plan Name	Plan Date	Plan Author
2207-02, Issue A	Proposed Lot 2-4, Emt A in Lot 2, Emt B in Lot 3 and Emt C in Lot 4 cancelling lot 2 on RP 721330	3-10-2006	John MacIsaac and Associates Pty Ltd

An assessment of the proposed development on Public Passenger Transport (Aviation) has been completed. It is advised that the proposal is **approved with conditions** of development as identified in Attachment 1 (*Conditions with Statement of Reasons*). These conditions must be included in any development permit issued for this proposal. In addition, QT provides the following advice to Council.

Advice to Council:

Please ensure that the following information is attached to all rate notices for the three (3) proposed lots the subject of this application:-

- Any future application for Building Works for residential development on the proposed lots must include certification by a registered Acoustic Engineer that the building design complies with Australian Standards 2021.

Transport Planning Branch
Far Northern Region
Level 4, Cairns Corporate Tower, 15 Lake St.
PO Box 6185
Cairns QLD 4870
ABN 13 200 330 520

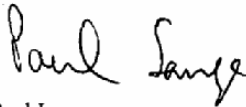
Our ref CRN-61
Your ref 8/13/1189
Enquiries Johann Holdysz
Telephone +61 7 4050 5449
Facsimile +61 7 4050 5440
Website www.transport.qld.gov.au/idas
Email johann.z.holdysz@transport.qld.gov.au

- Any future application for Building Works or Operational Works on the proposed lots must include certification by a Licensed Surveyor that any structures or landscaping will not exceed 25 metres AHD.
- Any future residential development or use must not interfere with the surrounding aviation airspace by means of physical obstructions, radio transmissions and electrical emissions, and must comply with the requirements set out in appendix 3 of the State Planning Policy 1/02 Guideline (Development in the Vicinity of Certain Airports and Aviation Facilities). These requirements include for Zone A: no sources of man-made radio noise unless they are under the strict control of the Australian Communications Authority, and for Zone B: Residential uses are compatible provided all appliances comply with AS1044 or, subject to investigation, a suitable mains filter is installed in houses.

QT reserves the right to reassess this advice should the proposal not proceed in accordance with the plans identified in this letter. This advice is valid for two (2) years from the date of this letter.

A copy of this letter, including the Conditions with Statement of Reasons has been sent to the applicant.

Yours sincerely



Paul Lange

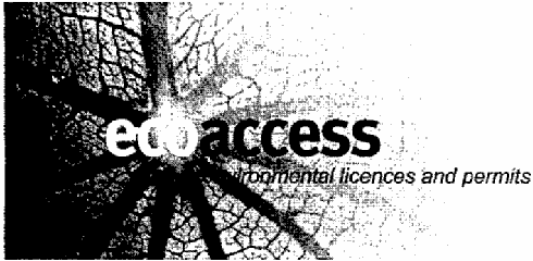
A/Principal Advisor (Planning) Northern

Attachment 1: Conditions with Statement of Reasons – CRN 61

Application for: Development Permit: ROL for 1 lot into 3 residential lots
96-98 Cinderella Street Machans Beach
Lot 2 on RP721330
Cairns City Council Ref. 8/13/1189

Condition for the subject application	Jurisdiction	Reasons
<p>1. Any future application for Building Works for residential development on the proposed lots must include certification by a registered Acoustic Engineer that the building design complies with Australian Standards 2021.</p>	<p><i>Transport Planning and Coordination Act</i> s8A(2)(a)-(c)</p>	<p>State Planning Policy 1/02 Development in the Vicinity of Certain Airports and Aviation Facilities ('SPPI/02'), identifies residential uses within the 25 ANEF zone as incompatible development due to unacceptable aircraft noise. However, the policy allows an exception where the land is already zoned residential. In this case, it is appropriate to require noise attenuation measures to be incorporated into the building design and development.</p>
<p>2. Any future application for Building Works or Operational Works on the proposed lots must include certification by a Licensed Surveyor that any structures or landscaping will not exceed 25 metres AHD.</p>	<p><i>Transport Planning and Coordination Act</i> s8A(2)(a)-(e)</p>	<p>The subject site is located between the height limitation zones for operational airspace of Cairns International Airport. The height limitation is to protect the ability of aircraft to safely land, take-off or manoeuvre. No structures or trees are allowed to penetrate operational airspace.</p>
<p>3. Any future residential development or use must not interfere with the surrounding Aviation airspace by means of physical obstructions, radio transmissions and electrical emissions, and must comply with the requirements set out in appendix 3 of the State Planning Policy 1/02 Guideline (Development in the Vicinity of Certain Airports and Aviation Facilities). These requirements include for Zone A: no sources of man-made radio noise unless they are under the strict control of the Australian Communications Authority, and for Zone B: Residential uses are compatible provided all appliances comply with ASI044 or, subject to investigation, a suitable mains filter is installed in houses.</p>	<p><i>Transport Planning and Coordination Act</i> s8A(2)(a)-(c)</p>	<p>Aviation facilities need surrounding airspace to be clear from physical obstructions, radio transmissions and electrical emissions. Any development near an aviation facility must not impair the facility's functioning.</p> <p>The subject site is located in Buffer Zone A of a Radar Facility and in Buffer Zones A & B of a Distance Measuring Equipment (DME) facility.</p>

Contact Officer	Johann Holdysz
Position	Contract Planner (Far North)
Telephone	4050 5449
Date	2 March 2007



Notice

Concurrence Agency Response

This notice is issued by the Environmental Protection Agency pursuant to Sections 3.3.16 and 3.3.18 of the Integrated Planning Act 1997 to advise of a decision or action.

Cairns City Council
PO Box 359
CAIRNS QLD 4870



CC: Mr Roger Mcleod
c/- Planning Far North
PO Box 7801
CAIRNS QLD 4870

Our reference: 198022

Dear Sir/Madam

Re: Referral for Concurrence Agency Response

The Environmental Protection Agency (EPA), wishes to advise that the referral for a concurrence agency response, received on 13-FEB-2007, has been assessed, and on 04-AUG-2009 it was decided.

1. Property/Location:

Street address - 96-98 Cinderella Street MACHANS BEACH QLD 4878
Lot/Plan - Lot 2 Plan RP721330

2. Details of the recommendation

Aspect of Development
- Concurrence Response for Reconfiguration
- Reconfiguration completely or partly within a coastal management district

Recommendation
- Grant with conditions

EPA Ref Number
- IPCC00554007C11

3. Currency period

This development approval takes effect -

Notice
Concurrence Agency Response

- ° From the time the decision notice is given, if there is no submitter and the applicant does not appeal the decision to the court; or
 - ° When the submitter's appeal period ends, if there is a submitter and the applicant does not appeal the decision to the court; or
 - ° Subject to the decision of the court, when the appeal is finally decided, if an appeal is made to the court [refer to sections 3.5.19 and 3.5.20 of the *Integrated Planning Act 1997* for further details]
- This approval will lapse unless substantially started within the standard currency periods stated in section 3.5.21 of the *Integrated Planning Act 1997* applying to each aspect of development in this approval.

4. The approved plans

The approved plans and/or documents for this approval are:

Plan/Document No.	Plan/Document Name	Date
2207-02 Issue C,	Proposed Community Titles Scheme Lots 1 – 3 Common Property & Emt A in Common Property Cancelling lot 2 on RP721330	27/2/2009

5. Codes for self-assessable development

Any self-assessable development for an environmentally relevant activity conducted in conjunction with this approval, must comply with the relevant code of environmental compliance.

6. Assessment Manager Responsibilities

Please note that it is a requirement under Sections 3.5.15 and 3.5.17 of the Integrated Planning Act 1997 that a copy of the final Decision Notice (which includes the EPA's concurrence response) for this application issued by the Cairns City Council, be forwarded to each referral agency. Therefore could you please send a signed hardcopy to the EPA's Ecoaccess Customer Service Unit, PO Box 15155 CITY EAST 4002 and an electronic copy to eco.access@epa.qld.gov.au.

In addition, the State's Native Title Work Procedures indicate that responsibility for assessment of native title issues for an IDAS application rest with the Assessment Manager. Therefore in this instance, the EPA has not provided a notification to native title parties.

If you require more information, please contact Filiz Tansley, the Project Manager, on the telephone number listed below.

Yours sincerely



Gary Innis
Delegate
Environmental Protection Agency
04-AUG-2009

Enquiries:
ES - Reg Serv - Cairns - William McCormack
PO Box 2066
CAIRNS QLD 4870
Phone: (07) 4046 6602
Fax: . (07) 4046 6606

EPA Permit number: IPCC00554007C11

Maintenance of revetment wall

The maintenance of the approved revetment is essential for ensuring the ongoing protection of these proposed lots and any dwellings constructed thereon. It is recommended that, should Council decide to approve the application, an advisory note is placed on the property database to alert owners to the potential vulnerability of the lots and the importance of maintaining the rock revetment wall to protect land and property.

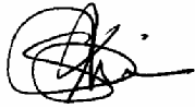
Mitigating the Adverse Impacts of Storm Tide Inundation

Should Council decide to approve the application, Council is advised to ensure that appropriate conditions are imposed to mitigate the adverse impacts of storm tide inundation in accordance with the "Mitigating the Adverse Impacts of Storm Tide Inundation Guideline" available on the DERM website.

Additional information for applicants

Contaminated Land

It is a requirement of the *Environmental Protection Act 1994* that if an owner or occupier of land becomes aware a Notifiable Activity (as defined by Schedule 2 of the *Environmental Protection Act 1994*) is being carried out on the land or that the land has been affected by a hazardous contaminant, they must, within 30 days after becoming so aware, give notice to the Environmental Protection Agency. DERM.



Gary Innis
Delegate
Environmental Protection Agency
04-AUG-2009



Section 3.3.16 and 3.3.18 *Integrated Planning Act 1997*

EPA Permit¹ number: IPCC00554007C11

EPA Permit¹ number:	IPCC00554007C11
Assessment Manager reference:	
Date application received by EPA:	13-FEB-2007
Permit¹ Type:	Concurrence Response for Reconfiguration
Date of Decision:	4-AUG-2009
Decision:	Grant with conditions
Relevant Laws and Policies:	<i>Coastal Protection and Management Act 1995</i> and any subordinate legislation
Jurisdiction:	Item 10 in Table 2 of Schedule 2 of the <i>Integrated Planning Regulation 1998</i>

The approval applies to and binds the Cairns Regional Council

Development Description

Property	Lot/Plan	Aspect of Development
96-98 Cinderella Street, MACHANS BEACH QLD 4878	Lot 2 Plan RP721330	Reconfiguration completely or partly within a coastal management district

Reasons for inclusion of development conditions

In accordance with section 3.3.18(8) of the *Integrated Planning Act 1997* and section 27B of the *Acts Interpretation Act 1954*, the reasons for the inclusion of development conditions are:

The Environmental Protection Agency is a concurrence agency under the *Integrated Planning Regulation 1998* for coastal management under the *Coastal Protection and Management Act 1995*, excluding amenity or aesthetic significance or value.

Additional comments or advice about the application

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service

EPA Permit number: IPCC00554007C11

CONDITIONS OF APPROVAL

General Permit Condition

Agency Interest: Coastal

- PC1 The Common property depicted in the approved plan must be subject to a community title arrangement for the purposes of maintenance of the rock revetment.
- PC2 The area depicted as Common Property on approved plan 2207-02 Issue C, dated 27/2/2009, must remain free of development.
- PC3 All works are to be constructed in accordance with the attached approved drawings and specifications listed in the approved plans section in the notice attached to this concurrence agency response..

DEFINITIONS

Attachment – Definitions

Words and phrases used throughout this permit¹ are defined below. Where a definition for a term used in this permit¹ is sought and the term is not defined within this permit¹ the definitions provided in the relevant legislation shall be used.

"approval" means 'notice of development application decision' or 'notice of concurrence agency response' under the *Integrated Planning Act 1997*.

"coastal dune" means a ridge or hillock of sand or other material on the coast and built up by the wind.

"dredge spoil" means material taken from the bed or banks of waters by using dredging equipment or other equipment designed for use in extraction of earthen material.

"erosion prone area" means an area declared to be an erosion prone area under section 70(1) of the *Coastal Protection and Management Act 1995*.

"high water mark" means the ordinary high water mark at spring tides.

"quarry material" means material on State coastal land, other than a mineral within the meaning of any Act relating to mining. Material includes for example stone, gravel, sand, rock, clay, mud, silt and soil, unless it is removed from a culvert, stormwater drain or other drainage infrastructure as waste material.

"site" means the place to which this development approval relates or the premises to which this development approval relates.

"tidal water" means the sea and any part of a harbour or watercourse ordinarily within the ebb and flow of the tide at spring tides.

"watercourse" means a river, creek or stream in which water flows permanently or intermittently-

- in a natural channel, whether artificially improved or not; or
- in an artificial channel that has changed the course of the watercourse.

"waters" includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

END OF CONDITIONS

APPENDIX 3 SUPPORTING INFORMATION TO PLANNING REPORT



Reference:

 Department of
Primary Industries and Fisheries

14 February 2007

The Principal Planner
 NQ Planning Division
 PO Box 5194
CAIRNS QLD 4870

Attention: Andrew Foley**RE: Application for Referral Coordination. RCU2624. Roger Mcleod. Machans Beach**

Applicant:	Roger Mcleod
Proposed Development:	Reconfiguration of a Lot. 1 Lot into 3 Lots.
Location:	96 -98 Cinderella Street, Machans Beach, Cairns. Lot 2 on SP721330.
Assessment Manager:	Cairns City Council.

The Department of Primary Industries and Fisheries received an application under referral coordination from DLGPS&R on behalf of Roger Mcleod on the 14th of February 2007.

Vision: Profitable primary industries for Queensland

Mission: Maximise the economic potential of Queensland primary industries on a sustainable basis

River Boulevard
 PO Box 1085
 Townsville
 Queensland 4810 Australia
Business Centre 13 25 23
Website www.dpi.qld.gov.au
ABN 78 342 684 030

Officers of the Department of Primary Industries and Fisheries have examined the material provided regarding the above application and are of the opinion that no further information is required. We also consider the development is unlikely to impinge upon this Departments interests; therefore we are unable to offer advice or comments to the Assessment Manager.

Yours sincerely

A handwritten signature in black ink, appearing to read 'D. Harrip', with a long, sweeping horizontal stroke extending to the right.

Dale Harrip
Project Officer
Integrated Regional Planning

CC Cairns City Council (LJ Payler)



Your Reference: 8/13/1189 (1437062)
 Our Reference: IR0207ATH0008; ATH/006861
 Contact: David McGill
 Directorate / Unit: Planning and Environment
 Phone: 07 4039 8284

Department of
Natural Resources and Water

1 April 2008

The Chief Executive Officer
 Cairns Regional Council
 PO Box 359
 Cairns Qld 4870

Attention: L J Payler

Dear Sir/Madam



**APPLICATION FOR RECONFIGURING A LOT OF LOT 2 RP721330 INTO THREE LOTS,
 CINDERELLA STREET, MACHANS BEACH – REFERRAL AGENCY RESPONSE**

The Department of Natural Resources and Water (NRW) advises as follows:

Please note that NRW are not triggered as an advice agency for acid sulfate soils (ASS) for this application as neither of the threshold triggers for referral to NRW for ASS issues for filling or excavation were reached.

NRW do not require a copy of the information request response from the applicant and do not need to advise the assessment manager any further on this application.

Should you have any questions about this advice, please contact David McGill on 07 4039 8284.

Yours sincerely

David McGill
Senior Natural Resource Officer
Landscapes and Community Services
North Region

CC
 Roger McLeod
 C/- Planning Far North
 PO Box 7801
 CAIRNS QLD 4870

Department of Natural
 Resources and Water
 Level 3, 5b Sheridan Street
 PO Box 937
 Cairns Queensland 4 870
 Australia
 Telephone + 617 4039 8270
 Facsimile + 61 7 4057 3365
 Website www.nrw.qld.gov.au



1952 Aerial Photo



2004 Aerial Photo