

18 February 2013

Department of Planning and Infrastructure 22-23 Bridge Street SYDNEY NSW 2001

Attention: Mr. Stuart Withington

Dear Stuart,

# RE: Section 75W Application to Part 3A Approval 08\_0167, Saltwater Estate, South West Rocks

With reference to the subject approval, Land Dynamics Australia on behalf of Malbec Properties seek a modification under section 75W of the Environmental Planning and Assessment Act 1979 for the following components of the consent as approved on 3 June 2011 by the NSW Department of Planning.

Following approval of the subject subdivision the proponent have engaged the services of Land Dynamics Australia (LDA) to prepare the construction certificate application and other documents in preparation for construction works. During this process a number of detailed engineering issues came to the fore and opportunities to improve the overall subdivision emerged as a result. The proposed amendments have been presented to Kempsey Shire Council (KSC) (Mr Tony Castle – development engineer) and Mr Paul Parker (principal engineer at GHD Port Macquarie) who have expressed their in principal support.

## The opportunities for improvement.

- 1. The overall layout has been amended to avoid lots with two street frontages. The road network has simply been shifted to the east to create a more efficient road layout which deletes all lots with rear street boundaries or dual access to their lots.
- 2. The site topography is an enormous challenge to hydrology and runoff hydraulics as it is difficult to achieve sufficient grades on the site to allow stormwater runoff to report to the proposed wetlands. The result of this challenge is a redesign of the stormwater treatment train doing away with the proposed constructed wetlands for the following reasons;
  - a. Slope from north to south is <1%. Constructed wetlands require some differential in elevation to achieve effective inflow/outflow
  - b. Lack of hydrologic effectiveness
  - c. Proliferation of aquatic weeds
  - d. Breeding ground for mosquitos
  - e. Ongoing maintenance KSC is not in favour of constructed wetlands and prefers alternative designs.
  - f. Public safety the wetland will require very shallow depths and batters otherwise will need to be fenced.

The proposed amended design has the following advantages over the concentrated flow regime that was approved;

a) It provides for a more even spread of the runoff into the adjacent environmental land and in doing so create less opportunities for erosion, enhance infiltration due to shallower and



AUSTRALIA

slower flows, and; virtually contains most of the northern boundary runoff in a bio-retention system.

- b) The bio-retention provides a perfect buffer between development and environmental areas and;
- c) Is fully contained within the development footprint area. The development footprint is to be shrunk to accommodate the bio-retention swale.
- 3. The rationalisation of open space. KSC advised during the construction certificate process that their preference is to have a single centrally located park. Thus the northern exercise park as approved will be made redundant to accommodate council's requirements.
- 4. Interallotment drainage in the approval is proposed to consist of open swales. We are of the opinion that this is potentially a source of perpetual issues for council with blockages, landscaping of these swales preventing flows, access for maintenance and fencing (gaps and animals, small children)

Given the consent makes specific reference to some key areas of the development, we seek to modify those consent conditions to reflect the amended development. The EP&A Act 1979 s75W allows for modifications of consent and as such we request modification of the following consent condition as listed per schedule 2 – Conditions of Approval. The modifications sought are highlighted in red italics.

Part A – Administrative Conditions

## A1 – Project Description

Project approval is granted only to carrying out the project generally described below:

- Subdivision of land into 270 lots, including 269 low density residential lots and 1 medium density residue lot; request modification to read "Subdivision of land into 277 lots, including 276 low density residential lots and 1 medium density residue lot" – Reason for request; the removal of the constructed wetlands from the system have provided additional land suited for lots. The approved footprint has not increased in size and there is no additional environmental impact as a result of this increase in lots.
- 2) Extension of the Belle O'Connor Street road reserve and construction of the internal road network (consisting of Roads 1 to 14); *No amendment sought*
- 3) Creation of a 3,025m<sup>2</sup> neighbourhood park with children's playground; *No amendment sought*
- 4) Creation of a 2,481m<sup>2</sup> bushland exercise park with picnic and barbeque facilities; Seek deletion of this consent condition as Kempsey Shire Council (KSC) wish to have a single park in the estate and not multiple open space areas that needs to be maintained. Land Dynamics Australia have undertaken consultation with KSC on this matter and council's preference is to have a single centrally located park as part of the estate sized in accordance with KSC's DCP.
- 5) Creation of two stormwater treatment wetlands of 2,100m<sup>2</sup> and 2,128m<sup>2</sup> in size; Seek deletion of this consent condition as we are of the opinion that the bio-retention system as



# Land Dynamics

suggested in the attached LDA 'Stormwater Quality Report' achieves the desired water quality targets.

- 6) Creation of six stormwater treatment swales; Suggest that this condition be amended to read 'stormwater runoff from the development is to be designed in accordance with the treatment train as described and modeled by Land Dynamics Australia in its document 'Stormwater Quality Report'
- 7) A network of pedestrian and cyclist pathways; *No amendment sought*
- 8) On-site landscaping works; and *No amendment sought*
- 9) Works to connect to reticulated services, including water, sewerage and telecommunications. *No amendment sought*

## PART B-PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

## B6 Stormwater Treatment Swales

The site is to include grassed treatment swales at a rate of 125 linear metres of swale per hectare of the site (excluding the conservation zone). Swales are to be designed so that no than 95% of the total developed site drains through them. Swales are to have a minimum width of 2.5m and sized for hydraulic conveyance of design flows. Swales are to be provided as road side swales or, where required, as interallotment drainage features.

Suggest that this condition be amended to read 'The site is to include vegetated bio-retention swales for the two main swales running south to north and for the whole periphery of the north eastern boundary with the conservation zone (excluding the conservation zone). Swales are to be designed so that 100% of the total developed site's 3 month runoff drains through them. Road side swales are to have a minimum width of 2.5m and sized for hydraulic conveyance of design flows. Swales are to be provided as road side swales only and all interallotment drains are to be piped.

## **B7** Stormwater Treatment Wetlands

In addition to grassed treatment swales, onsite wetlands are to be provided to treat flows from the two main treatment swales traversing south to north. The wetlands are to have a combined area of no less than 3,400m<sup>2</sup>. Seek deletion of this consent condition for the reasons already outlined

## B8 Stormwater and Drainage Works Design

Final design plans of the stormwater drainage systems within the site, prepared by a qualified practicing Civil Engineer and in accordance with the requirements of Council, shall be submitted to and approved by the Certifying Authority prior to issue of a Construction Certificate. The hydrology and hydraulic calculations shall be based on models described in the current edition of Australian Rainfall and Runoff.

Note: Should detailed design considerations result in a change to the adopted water quality solution shown on the subdivision plans, remodelling using MUSIC, with parameters as adopted in the Amended Water Cycle Management Plan prepared by Martens Consulting Engineers and dated July 2010 (provided with the PPR), shall be required in order to verify the adequacy of redesigned components. Any further modelling shall demonstrate that post-development mean load pollutants (Total Suspended Solids, Total Nitrogen and Total Phosphorus) to the downslope vegetation from the site and upslope catchments post



development, do not exceed pre-development loads. A modification to this approval will be required should any components of the stormwater and drainage works design differ from the requirements as outlined in Conditions B6 and B7. *Please refer to the attached Stormwater Quality Report* 

#### **B15** Artificial Wetlands

Prior to the issue of a Construction Certificate for Stages 1 and 6, the Proponent is to provide details and specifications to the satisfaction of the Certifying Authority detailing how the artificial wetlands are to be lined in order to avoid groundwater interception and potential contamination of the groundwater. All wetland areas are to be constructed in accordance with OEH's Constructed Wetlands Manual.

Seek deletion of this consent condition for the reasons already outlined

**Bushfire Management** 

#### **B16 Asset Protection Zones**

Asset Protection Zones (APZs) are to be provided in accordance with Malbec/Saltwater Development – South West Rocks – Bushfire Constraints Plan prepared by AECOM Australia Pty Ltd and dated 03 August 2010. Details of the APZs (as it relates to each stage of the project) are to be provided to the satisfaction of the Certifying Authority prior to the release of the Construction Certificate for each stage of the project. As there have been changes to the proposed layout of the development, the bushfire requirements have been updated to reflect these proposed changes. Please refer to the attached document Bushfire Hazard Assessment November 2012 by Midcoast Building & Environmental

We thank you in advance for your assistance with this application and should you need any further documentation or clarification then please contact the undersigned at the earliest convenience.

Yours faithfully

A

Alex Pelser MMgmt, ME(Civil), MAIPM Managing Director