



25 September 2008

Our Ref: 6096
Your Ref: MP06--212

Port Macquarie Hastings Council
PO Box 84
PORT MACQUARIE NSW 2444

Attention: Mr Gordon Cameron

Dear Gordon,

Re: Impacts of Climate Change on Flooding Levels
MP06-0212 "Riverpark Estate Sancrox" Sancrox Road

I refer to our recent discussions regarding Council's current position on available Hastings River flooding data and the potential impacts of climate change.

As per our discussions, it is understood that Port Macquarie-Hastings Council has consulted with the Department of Environment and Climate Change on a number of occasions in relation to climate change. We note also that you believe DECC to be issuing further formal advice on this matter shortly.

Our submission to the Department in our Environmental Assessment documented the 1 in 100 year flooding level to be 4.5m AHD. This level is illustrated on all of our subdivision plans and has been referenced from the recent Flood Study PMHC commissioned for the entire Hastings River catchment in 2006, undertaken by Patterson Britton & Assoc.

All but 6 of the intended 144-lots in the subdivision are above this level and do not require filling to achieve suitable building envelopes or on-site effluent disposal areas. The six sites whose building envelopes lie partly within the 1 in 100 year flood level only require partial filling to achieve flood free building sites (refer attached plan).

It is our contention that this is an acceptable response to the potential flooding constraints posed by this site. Clearly with the limitations of modern road and infrastructure design it is near impossible to achieve a fully compliant subdivision without some partial intrusion into flood-affected lands. Council's

Directors

MICHAEL S MOWLE
B E Civ (Hons)
Chartered Engineer

GERALDINE E HAIGH
B App Sc (Env Plng)
Senior Planner

GEOFFREY E HILL
B Surv
Registered Land Surveyor

DANIEL J BAKER
B Surv
Registered Land Surveyor



ABN 27 055 060 878

Suite 1, 109 William St

PO Box 1556, Port Macquarie 2444 NSW

Telephone: 02 6583 6722 Facsimile: 02 6584 9009

Email: mail@hopcon.com.au

recent rezoning of flood-prone areas of this site to 1(r1) Rural Residential is a reflection of this notion – i.e. the zone boundary was set by ecological constraints, and not by perceived flooding limitations.

Moreover, we contend that the proposed rural re-subdivision is sympathetic to the opportunities of the site, and that the development will have no detrimental impact to the nature of floodwaters in the locality, nor will future residents be put at risk from flooding impacts.

In this respect, we submit that:

- The proposal has been designed to accord with, and be compliant with the current standard that applies today – that being the 1 in 100 year flood level of 4.5m AHD;
- The number of lots which require minor filling totals 6 over a subdivision layout of 144 lots (i.e. approx. 4% of the total number of lots);
- The degree of filling required for each of the 6 affected lots is minor and constitutes only a fraction of their site area in each instance;
- Accuracy in respect to the potential impacts of climate change is still limited and there is a lack of scientific certainty for all conservative predictions in respect to rainfall intensity and sea level rises;
- At Council's best available estimates, any potential impacts to the 1 in 100 year flood levels in the Sancrox area are likely to be in the order of 200mm to 400mm over a 100 year period – in which time, most residences within this subdivision will likely be redeveloped a number of times over;
- We have considered a highly conservative model of the Probable Maximum Flood event in our original submission (refer Figure 37 of August 2006 report by Patterson Britton). Even in this extreme event, emergency egress is available to the subdivision.

For the above reasons we consider it unreasonable and unnecessary for further expensive and time-consuming modelling of the Hastings River / Haydons Creek flood levels to be undertaken to support the proposal. Any modelling of potential climate change impacts are, at present, a sensitivity check only and we have determined that the proposal is sensitive to possible minor increases. It is also contended that any expensive and time-consuming modelling exercise is unlikely to produce any more accurate results than the best estimates that Council has to hand at present.

Notwithstanding, to further counter potential impacts associated with the estimated 200mm – 400mm increase in 1 in 100 year flood levels for the Hastings catchment to 2100, we are offering to adopt a 800mm freeboard for all new dwellings in the proposed rural residential subdivision. We understand that this is 300mm above the state minimum level. We further understand that PMHC adopted the 800mm freeboard standard for land east of the Pacific Highway some 10 years ago for the specific purpose of accounting for possible sea level rise.

We feel that this would be a reasonable response to the issue in light of the large area of the subject land, the extreme cost in conducting further flood modelling, the lack of scientific certainty that any such modelling exercise is anticipated to have, and the fact that the present subdivision is compliant with present flooding standards and the current request is a sensitivity check at best

Should you be in a position to confirm such advice above and provide a summary of Council's understanding of the issue, it would be appreciated. This would enable us to progress the matter with the Department of Environment and Climate Change and Department of Planning.

Should you have any queries with respect to the above please do not hesitate to contact me.

Yours faithfully,

Andrew Lister
Town Planner

cc client
encl as referenced above