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JW Planning
PO Box 3252
Valentine
NSW 2280

22 February 2005

Attention: Mr Jason Wasiak

Dear Jason

NORTH COORANBONG CREEK ASSESSMENT

Patterson Britton and Partners (PBP) was engaged by JW Planning Pty Ltd to provide an assessment of creeks within the North Cooranbong investigation area. A discussion of work undertaken and findings is provided below.

A comprehensive site visit was undertaken by two PBP engineers (*Mark Tooker and Eric Wingate*) and an ecologist (*Ann Clements*), including walking along sections of each of the drainage corridors as shown on topographic mapping and site survey. The assessment focussed on ascertaining whether the drainage lines across the site would be considered as significant waterbodies (*or 'rivers'*) under the Rivers and Foreshore Improvement Act (R&FI Act), as might be concluded by the Department of Infrastructure Planning and Natural Resources (DIPNR).

An initial assessment was undertaken using a preliminary masterplan prepared by 'architectus' and provided to PBP by JW Planning. This assessment has subsequently been updated to provide commentary on all drainage lines across the site, and does not assess any particular masterplan option.

Attachment A shows the results of the creek assessment undertaken by both PBP and Ann Clements. Commentary is provided on each drainage line where applicable. The assessment is based on the figure provided by 'architectus' which shows the following:

- aerial photo of the site;
- aerial survey of the site; and
- overlay of 'blue lines' as shown on the 1:25,000 topographic map



Principals

Greg Britton BE MEngSc FIEAust Andrew Chitty BE MIEAust CPEng Peter Coltman BE MEngSc MIEAust
Bruce Druery BE Dip Sc(Geol) M AppSc MIEAust Paul Harvey-Walker BE FIEAust David McConnell BSc MIEAust
Joe Marson BE MEngSc FIEAust Andrew Patterson BE FIEAust Christopher Thomas BE MEngSc MIEAust
Mark Tooker BSc(Eng) MEngSc FIEAust CPEng Michael Wright BE MEngSc MIEAust

Senior Associates

Steve Barrett Paul Macinante BE MEnvEngSc Ben Patterson BE MIEAust Marc Roberts BE
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Associates

Stephen Aebi BE MIEAust Simon Batt BE MIEAust Neville Boyes OMIEAust Scot Cranfield
Cameron Druery BE MIEAust Daryl Fidge BE BSurv MIEAust Tod Hall BA (Bio) MEM (Coastal)
Cameron Smith BE MEngSc MIEAust CPEng Alexandra Stone BE MIEAust Chris Yates BE MIEAust



We note that in some locations the 'blue lines' as shown on the 1:25,000 topographic map do not completely line-up with the aerial survey. In such instances, the assessment was based on field observations and survey data which would ultimately be used to locate the creeks.

Attachment A shows drainage lines that are considered significant and these areas should be retained as major creeks, floodplains and drainage corridors. It is recommended that appropriate buffer zones be retained around those watercourses considered to be 'rivers', however smaller buffers may be appropriate at certain locations as identified on Attachment A. Other drainage lines not considered to be significant may be developed, with stormwater controlled by piping minor storms, and conveying major flows along roadways. This is also shown on Attachment A. The location of proposed 'river' road crossings should be given additional consideration, as 'river' crossings by road would require special design.

We trust the above information meets with your requirements. Please do not hesitate to contact Eric Wingate on 4928 7777 or Mark Tooker on 9957 1619 with any queries regarding the above. As indicated in our proposal, we are available to undertake further negotiation with DIPNR should this be required.

Yours Faithfully
Patterson Britton & Partners



Mark Tooker
Principal

Reviewed by

Date

Eric Wingate

8/3/05

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40 80 160 200 Metres
SCALE 1:10000

Sources:
- Creek alignments based on "architectus" overlay of 1:25,000 topographic map
- Aerial Survey of Site Supplied by JW Planning Pty Ltd
5366.01_North Cooranbong Creeks - FIGURE 1.dwg

NOTES:

- 1 - All creeks to have 40m buffer on either side unless noted otherwise
- 2 - Where creek on 1:25,000 topographic map does not match survey. Then survey to be used to locate creeks.

Attachment A North Cooranbong Investigation Area Creek Assessment