

Our ref: 8048/corro

Paulina Hon
Coastal Assessments
Department of Planning
GPO BOX 39
Sydney NSW 2001

4th August 2008

Dear Paulina



**BEVIAN ROAD CONCEPT APPLICATION
Part 3a Major Project Application MP 05_0199**

I refer to your request for further information in response to comments received from the Rural Fire Service (RFS correspondence dated 10.4.08, your ref S06/0068, G08/0707). In particular you have requested a response to only two matters, these being Item 2 (p1) and General Advice (p3) in the RFS correspondence. These matters and our responses are provided below.

Asset Protection Zones

Item 2 *At the Issue of subdivision certificate and in perpetuity, asset protection zones (APZ) shall be provided as detailed within the Bushfire Protection Assessment (ref:6052B2), including Schedule 1, dated September 2007, as prepared by Conacher Travers. The only modification to the above is that the proposed 34 meter APZ to the north of Zone 1 (as shown on Schedule 1) shall be increased to provide an APZ of 41 m in this location.*

Response

As shown on the attached revised *Schedule 1-Bushfire Protection Measures* dated 4/08/08, the northern boundary APZ to Zone 1 has been increased for the first 5 lots on the very northern portion of zone 1.

The remaining lots on the northern boundary are not affected by steep slopes and do not require an increase in the APZ's. *Travers environmental* agrees to the amendment which does not significantly impact on the conservation objectives of that portion of land.

However we can advise that the topography of the site is not as simple as the RFS have assumed. The majority of these lots are on the south west side of a ridgeline and the unmanaged vegetation is located on the northeast side of the ridgeline separated by the proposed APZ. This means that the ridgeline is between the location of the proposed dwelling envelope and the unmanaged vegetation. Thus there is a significant barrier to radiant heat flux potential.

This fact is understood by the RFS and they have advised of this 'barrier effect' by referencing the 'view factor model' within their *Fast Fact* advice dated 9/07. For example the 'view factor' is the direct line or path of radiant heat that is emitted by a bush fire directly onto

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another surface. This is important in understanding the way in which a structure is affected by radiant heat from a bush fire.

The RFS accepted rule for understanding the view factor is that 'whatever the fire front can 'see' (within the limits of the radiant heat transfer) will be impacted by radiant heat'. Therefore the likely fire behaviour (due to the ridgetop) will limit the potential radiant heat impact upon the affected lots due to the ridgetop being between the dwellings and the unmanaged forest vegetation.

Given that radiant heat flux and tilted flame length are the only two quantitative measures we use to model bushfire protection strategies I can advise that the former APZ would have been sufficient for the site if we were to undertake negotiation with the RFS. Notwithstanding this, our client *Marsim* has accepted the RFS requirement and we have made the adjustments to the plan attached.

General Advice

The Asset Protection Zones (APZ) required as part of the development will encompass land that will be located within a riparian corridor/area. Ecological management of the riparian area may conflict with that required for the APZ's. In this regard the applicant will need to Liaise with the NSW Department of Natural Resources (now known as the Department of Water and Energy, DWE) to identify their management requirements (to ensure they) do not conflict with those required for the APZ's by the NSW Rural Fire Service.

Response

The *Department of Water and Energy* has been extensively consulted with regard to their riparian corridor requirements by this firm. The DWE requirements have been fully applied to the Concept Plan reviewed by the RFS. Indeed the variable width riparian corridor has been supported by Janne Grose and Bob Britten (DWE representatives). Therefore there is no overlap between the designed APZ's and the agreed riparian corridor requirements.

Please do not hesitate to contact the undersigned if these matters require any further clarification on 43405331 or at ecology@traversenvironmental.com.au

Yours faithfully



John Travers
Managing Director
Travers environmental