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The Secretary
Coastal Assessments
Department of Planning
GPO Box 39
Sydney NSW 2001

Our Ref #: 9040/09

Friday, 22 May 2009

Attention: Mr Thomas FitzGerald

**Review of Flora & Fauna and Vegetation Management Reports for Lots 100 & 101
DP629555 and Lot 2 DP800836 740 – 742 Pacific Highway, Sapphire Beach:**

Dear Sir

Bushfiresafe (Aust) Pty Ltd was engaged by Sapphire Beach Development Pty Ltd to prepare the Flora and Fauna report and Vegetation Management Plan (Bushfiresafe June, 2006) for the above mentioned properties. The reports were prepared as part of submitted documentation for MP 06_0148, approved by the Minister on the 9th May 2007; the Concept Plan approval comprised of a mixed tourist/residential development consisting of 122 dwellings ranging from tourist apartments, to townhouses and villa style housing. The concept Plan approval also included an approval regime for future applications for the site.

The developer prepared an application that proposes to modify the approved Concept Plan to accommodate a residential subdivision of 42 lots (39 residential and 3 community lots), and also proposes changes to the staging and future approval regime for the development, which has been submitted to the Department of Planning and new Director General Requirements (DGRs) have been disseminated to the stakeholders.

The 'General Requirement' DGR for both the Concept Plan modification (MP06_0148 Mod 1 and the Project Application (09_0060) to which we respond is;

SPECIFIC RESPONSE TO DIRECTOR GENERAL REQUIREMENTS

'6. Consideration of impacts, if any on matter of National Significance under the Commonwealth Protection and Biodiversity Conservation Act 1999.'

The proposed modifications to the development will not change our original report as it relates to the Commonwealth Protection and Biodiversity Act. We restated that Commonwealth Assessment will be required for proposed activities on the site if they affect any matter of National Environmental Significance (NES). The Subject site is not a Declared World Heritage Area nor does it contain any Declared Ramsar Wetlands. No threatened species listed under the EPBC Act (1999) were identified occurring at the Subject site.

None of the ecological communities currently listed in the EPBC Act (1999) occur at the subject site.

Listed migratory species in NSW are considered predominantly in the Japan-Australia Migratory Bird Agreement (JAMBA) and China-Australia Migratory Bird Agreement (CAMBA).

No CAMBA or JAMBA species are known to occur or – in view of the absence of wetlands – likely to occur at the site. The proposed development is therefore unlikely to have a significant impact on any CAMBA or JAMBA species.

It is unlikely that the proposed development of the subject property would significantly affect any threatened species listed under the EPBC Act. This conclusion was reached primarily because of the small area of the subject property and also because the proposed development would not have a significant impact on threatened species. The proposal does not require referral to the Commonwealth Department of Environment and Heritage for approval on behalf of the Federal Minister for the Environment, Water, Heritage and the Arts.

The specific DGRs of MP 06_0148 Mod 1, to which we response are;

'8.1 Assess whether the proposed modification will change impacts to flora and fauna. This assessment must give particular regard to proposed vegetation removal, the dune system and the environmental protection zone. Describe the actions that will be taken to avoid or mitigate impacts or to compensate for unavoidable impacts (where relevant).

The proposed modifications to the development will not change any impacts to flora and fauna. The Vegetation Management Plan (VMP) outlines the actions for the protection of identified areas of Silverbush (*Sophora tomentosa* subsp. *australis*) along the foredune through fencing, weed removal and additional planting using on-site collected seed. These actions are consistent with the Priority Action Plan for the recovery of this endangered species. Additional areas of the foredune will be rehabilitated using appropriate species to: stabilise and anchor the dune system, remove and/or control the existing weed infestations, enhance the visual appeal; and provide habitat for animals and birds likely to frequent the area.

The weed management strategy outlined in the VMP for the 7(a) Environmental Protection Zone proposes the revegetation of this community using appropriate species that will enhance the habitat and floristic value of this area; no extant native vegetation will be removed from this vegetation community. The proposed 5m Asset Protection Zone surrounding the existing vegetation will provide suitable bushfire protection and pose a barrier to weed migration into this vegetation community.

8.2 Identify and discuss impacts of the proposed modification on vegetation (including the previously identified 97 tress) located outside the 7A Environmental Protection zone. Describe the actions that will be taken to avoid or mitigate or compensate unavoidable impacts, where relevant.

A total of 105 trees were recorded over the subject land, outside of the 7(a) Environmental Protection Zone. 45 trees will be removed. This will include a number of mature Hoop Pine trees displaying evidence of dieback associated with Mundulla Yellows (MY) Syndrome. An investigation of these trees by Active Tree Services and Southern Cross University confirmed the presence of Mundulla Yellows syndrome in the trees and in fungi, nematodes, bacteria, phytoplasm, viruses and virus-like organisms present in the topsoil up to 15m from the Pine trees; this is discussed further in the VMP attached. Affected trees and all vegetation within 18m of the tree will be removed and the area treated to limit the spread of this virus.

Nine Pandanus trees will be relocated and incorporated into the landscaping for the development. Additional planting of trees is proposed in the Landscape Plan, including the planting of 11 Hoop Pine trees within an 8m wide area adjacent to the Pacific Highway in compensation for the loss of Mundulla Yellows affected trees. As a result there will be a net increase in the number of trees existing outside of the 7(a) Environmental Protection Zone for the modified development application when compared to the previous application.

The specific DGR for the Project Application 09_0060 to which we respond is;

‘3.1 Identify and discuss impacts of the proposed demolition and site clearance on any vegetation on the site; including vegetation located outside the 7A environmental Protection zone (including existing, trees, proposed trees to be retained, and vegetation in the dune system). Describe the actions that will be taken to avoid or mitigate impacts or compensate unavoidable impacts, where relevant.’

A total of 105 trees were recorded over the subject land, outside of the 7(a) Environmental Protection Zone. 45 trees will be removed. This will include a number of mature Hoop Pine trees displaying evidence of dieback associated with Mundulla Yellows (MY) Syndrome. An investigation of these trees by Active Tree Services and Southern Cross University confirmed the presence of Mundulla Yellows syndrome in the trees and in fungi, nematodes, bacteria, phytoplasm, viruses and virus-like organisms present in the topsoil up to 15m from the Pine trees; this is discussed further in the VMP attached. Affected trees and all vegetation within 18m of the tree will be removed and the area treated to limit the spread of this virus.

Nine Pandanus trees will be relocated and incorporated into the landscaping for the development. Additional planting of trees is proposed in the Landscape Plan, including the planting of 11 Hoop Pine trees within an 8m wide area adjacent to the Pacific Highway in compensation for the loss of Mundulla Yellows affected trees. As a result there will be a net increase in the number of trees existing outside of the 7(a) Environmental Protection Zone for the modified development application when compared to the previous application.

GENERAL RESPONSE TO THE PROPOSAL

In response to the DGRs the developer engaged Bushfiresafe (Aust) P/L to review the existing Flora & Fauna report and Vegetation Management Plan in relation to the proposed site layout.

The review will assess whether the proposed development modification will change the identified impacts to the flora and fauna, in particular, impact of proposed vegetation removal, the dune system and environmental protection zone.

The original flora and fauna report identified the proposed development will not result any loss of native vegetation other than planted landscaped vegetation for the construction of lots, houses, access roads, driveways, associated infrastructure and Asset Protection Zones for Bushfire protection.

A site visit and review of proposed subdivision layout concluded that the modification proposal would not have any greater impact on loss of native vegetation than was addressed within our original Flora and Fauna report in 2006.

Other potential environment impacts identified as associated with the proposed development include:

- An increase in traffic along the Pacific Hwy due to the proposed development during construction is likely to result in an increase in heavy traffic to the Site.
- Potential degradation of potential habitat for small number of other threatened species that may frequent the site from time to time.
- Increase in the level of disturbance for shore birds.
- A possible reduction in size of some vegetation communities on the site.
- Increased potential for establishment of weeds in neighbouring areas of vegetation.
- Impacts on water quality entering the Solitary Island Marine Park.
- Increases in noise, light and disturbance may cause more reclusive species to move away from habitat edges of retained vegetation in the study area, in effect increasing the penetration of edge-effects on habitat.

The review process concluded that the potential impacts identified within the original flora and fauna report would not be increased due to the development modification and it is highly likely due to lower dwelling yield and expected reduction of traffic flows impacts may be minimised.

Environmental amelioration opportunities recommended in the original approved Flora and Fauna report, included:

- It recommended that building envelopes be positioned to minimise the need to clear vegetation for houses and for bushfire buffers.
- All stormwater from development to be diverted away from coastal area and diverted into the stormwater system which is based on WSUD principle to control water quality, erosion and sediment
- Rehabilitation of the site and the revegetation of the grassed area adjacent to the beach as a physical boundary to buffer the coastline and anchor the dunes

- Suitable traffic control measures (such as speed humps, speed restriction signs etc) should be incorporated into the redevelopment to minimise impacts on fauna species that may frequent the site.
- Retention and enhancement of areas of natural habitat, Banksias, native coastal grasses and other flowering trees and shrubs throughout the development area
- Lighting from the proposed development should be designed to minimise disturbance to the coastal foreshores to reduce impacts on turtles and birds possibly nesting on the beach
- Fencing to be provided to limit entry to vegetation areas and to provide physical separation between residential development and natural areas

The review process concluded that the Environmental amelioration opportunities identified within the original approved Flora and Fauna report in 2006 would be adequate for the proposed development modification and the DGRs.

The review process concluded that the original Vegetation Management Plan would be adequate for the proposed development modification. However, the Vegetation Management Plan has been amended to include the modifications proposed for the development. The attached VMP outlines the actions for weed removal, fencing and signage to facilitate controlled access to Campbells Beach; rehabilitation of the foredune area to stabilise and anchor the dune system and preserve the existing Silverbush vegetation and revegetation of the 7(a) Environmental Protection Zone to achieve a floristically-equivalent littoral rainforest community over time.

Conclusion

Bushfiresafe (Aust) Pty Ltd, after reviewing the existing approved Flora & Fauna report done in 2006 and Vegetation Management Plan for Lots 100 & 101 DP629555 and Lot 2 DP800836 740 – 742 Pacific Highway, Sapphire Beach in context with the proposed development modification concluded the Flora & Fauna report & VMP are consistent with environmental and planning policy requirements and adequately address the Director General Requirements issued for the proposed development modification.

If you have any questions in relation to the above, or any other issue, please do not hesitate in contacting the undersigned.

Yours Sincerely



Wayne Hadaway
BushfireSafe (Aust) Pty Ltd