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RESPONSE TO ISSUES RAISED REGARDING THE SANDON POINT CONCEPT PLAN

Dear David

I refer to the summary of issues table you prepared from Government Agencies in response to the Sandon Point Concept Plan for Stockland. I have addressed the relevant issues, as listed below, for inclusion in your formal response submission to the NSW Department of Planning.

i. Justification for altered zone boundary/ compliance with zone boundaries recommended by Charles Hill.

Zone boundaries recommended by Hill were acknowledged as being flexible subject to more detailed study during the Planning Stage (refer to page 29-30 of the Hill report). Ecologically, the slight boundary changes are considered to be of no consequence.

ii. Corridor widths insufficient. Proposed widths might compromise ecological function and affect potential rehabilitation options upstream. DEC submits zone boundaries should not be finalised until riparian corridor widths resolved. DEC does not agree with Charles Hill Report and considers CoI should be adopted.

One of the main functions of the corridors is to maintain and improve the integrity of the ecological communities. Weed invasion appears to be the major threat to the integrity of the EEC vegetation at present and there are many patches of the creeks and floodplain vegetation that are dominated by weeds. The vegetation management plans that will be implemented as part of the project will address this threat and will compensate for some minor impacts to the vegetation that will occur at the proposed road crossings, stormwater infrastructure and creek reconfiguration, and where some APZ areas are required to be established.

The ecological function will not be compromised by the proposed development setbacks from the creeks. Revegetation options for sections of Hewitts and Woodlands Creeks upstream will not be compromised. Habitat corridor potential is presently restricted due to the existing residential development clustered near the coastline.

These vegetation communities are restricted to narrow strips on alluvial soils and the 30 metre core riparian zones provided for both Hewitts and Woodlands Creeks is more than adequate to provide for the protection and enhancement of the future riparian vegetation. The extensive regeneration proposed for all riparian corridors and long-term active management of these EECs will enhance the communities on site and provide as much protection for future riparian vegetation as the larger buffer proposed by DEC.

The 40 metre buffers recommended by DEC will not be implemented within the proposed development, which will adjoin degraded edges of the EEC in places. However, the proposal by DEC to implement a 40 metre wide buffer that is free from infrastructure and which is intended to maintain and help enhance the EEC vegetation is considered extravagant. The sterilisation of otherwise developable land is not the only solution to provide for maintenance and enhancement of the EEC vegetation.

iii. Inconsistent with various state agency policies including the Riparian Corridor Management Study or draft Illawarra Regional Strategy

As explained in the Section A.3.1 of the Updated Flora and Fauna Assessment for the Stockland site at Sandon Point, a 40 metre wide buffer to the riparian vegetation is not considered necessary.

The Riparian Corridor Management Study identifies Category 1 streams as environmental corridors with significant flora and fauna values. For this category, future development is to be excluded from a core riparian zone of 40 metres either side of the streams and existing natural vegetation within such zones is to be protected or, where vegetation has previously been cleared, the land should be revegetated. Furthermore, where urban development is contemplated, a 10 metre wide buffer zone is to be maintained in order to separate urban development from the core riparian zone.

Category 2 streams should have a 20 metre wide core riparian zone plus a 10 metre wide buffer, and Category 3 streams should have a 10 metre wide core riparian zone only.

A Category 1 rating for Hewitts Creek and Woodlands Creek on the site is excessive and is not warranted by the existing site conditions or the future ecological potential of the site. The small unnatural and semi-natural streams do not fit within such a category, although they can be revegetated to improve current wildlife habitat values. The development of the site will facilitate the reconstruction and enhancement of the degraded and piped streams.

The proposal under the Concept Plan conforms essentially to a Category 2 stream corridor, with average widths of 20 metres maintained along the corridor. Implementation of the stream width shown in the Concept Plan would be adequate to maintain the current ecological values of the

small streams on site. It would maintain basic habitat structures and preserve the natural features of the watercourse while allowing for 20 metre wide corridors of land to be revegetated.

iv. Reduced Riparian buffer width for Hewitt's Ck (refer to Hill recommendation). Clarify with map showing extent of EECs as mapped by Cumberland Ecology.

The recommendation made by Hill in regard to Hewitts and Woodlands Creek provided three options, the most appropriate option considering the actual condition and highly disturbed state of the western portion of the creek indicates that a Category 2 stream classification is adequate, which has been observed in the Concept Plan, as shown in Figure 8 of the Charles Hill report. The Hill report recognises that the Riparian Corridor Management Study is to be used as a guide (refer to page 29).

Cumberland Ecology has not mapped the extent of EECs at Sandon Point. The locations of Swamp Sclerophyll Forest, Swamp Oak Floodplain Forest and Freshwater Wetlands have been described as occurring where Sydney Coastal Estuary Swamp Forest was mapped by Connell Wagner and Sainty and Associates (2001). This assumption is based on the fact that these communities are listed as separate EEC's but all communities integrate with each other. The community formerly listed as Sydney Coastal Estuary Swamp Forest in the Sydney Basin Bioregion has been included in the determination of the Swamp Sclerophyll Forest community.

v. Justify variations to riparian buffer widths recommended by Charles Hill and demonstrate that all EECs are protected. Show all EECs overlain on Concept Plan.

Cumberland Ecology has reviewed the overlay plans prepared by Don Fox Planning which identify the location of the EECs as mapped by Connell Wagner and Sainty & Associates (June 2001) in relation to the concept plan and Charles Hill recommendations.

We note that our Updated Flora and Fauna Report May 2006 stated that no area of EEC would be impacted, and would be protected within the riparian corridor, as the Concept Plan appeared to show the EEC to be wholly contained within the riparian corridor. It is clear from the plans prepared by Don Fox Planning that some of the degraded EEC in Woodlands Creek will be impacted by the stormwater infrastructure. The EEC vegetation within Woodlands Creek is recognised as being highly degraded and in need of reconstruction, as noted by Connell Wagner and Sainty & Associates (June 2001) (pg 29) and Mark Taylor in Stormwater Masterplan: Commission of Inquiry Sandon Point by Robinson GRC Consulting (February 2003). The COI found that Woodlands Creek east of the railway line was highly disturbed and has potential for rehabilitation.

The redevelopment of the site will enable the reconstruction of the creek corridors, including Woodlands Creek and will incorporate a comprehensive rehabilitation of the creek including that section which is currently piped and filled as a consequence of previous industrial development. Major earthworks and riparian restoration that will establish a permanent creek corridor is a consequence of this proposal and the reconstruction and rehabilitation process for Woodlands Creek is an inevitable consequence of any development of the site.

As explained in Section *vii* of this letter, the stormwater infrastructure will be sensitive to this vegetation and will include future planting of native reeds and macrophytes appropriate to the ecological community. In this respect, through regeneration works, the areas of EEC will be increased in area and restored to a representative community. Furthermore, the exact location and extent of EEC vegetation is not precisely known, as Cumberland Ecology have not mapped the vegetation on site and the mapping by Connell Wagner and Sainty & Associates was completed in 2001, which may mean a change in area and condition of the EEC. During our site visit, it was noted that the creek zones were highly degraded, and perhaps more so than at the time of the original study.

vi. Flora and Fauna Assessments inadequate

Extensive flora and fauna investigations have been undertaken for the Stockland site and adjoining properties, and across the region. As a result, the issues associated with this degraded landscape are understood.

The subject site contains some areas with significant flora and fauna values and these are recognized within the development Concept Plan prepared for the subject site. The development will have a low impact upon native flora and fauna and will not significantly impact upon threatened biota because the majority of the flora and fauna attributes of the subject site will be maintained and conserved.

An additional survey for the Green and Golden Bell Frog was conducted as part of the updated assessment by Cumberland Ecology in 2006. No other survey or assessment was considered warranted due to extensive previous studies.

The previous flora and fauna assessment has duly considered the likely impacts of the proposed development upon the threatened species and found no significant impact is likely.

vii. Require minimum 40m buffer to EECs exclusive of APZs, roads and other infrastructure

The proposed stormwater management infrastructure, which includes; biofiltration basins, gross pollutant traps and swales, within the 40 metre wide riparian corridors of the creeks, but not within the 30 metre wide future core riparian protection zones, have been designed using water sensitive urban design and include the future planting of native reeds and macrophytes appropriate to the ecological community. This will ensure that the ecological communities are maintained within the core riparian protection zones, while also being enhanced through the planting of species which are part of the community. A detailed landscape plan will be prepared, prescribing the revegetation works and actions to protect the retained areas of existing vegetation.

Asset protection zones (APZ) will be required along the riparian corridors in the northern section of the site, north of Tramway Creek and on land adjacent to the subject site within the Tramway Creek corridor. According to the bushfire assessment, the zone need not be wide (approximately 15 metres wide). Management of this zone will not greatly impact on the EECs as the APZs are mostly outside of the existing areas of EEC. This will not impede on

revegetation works and only understorey vegetation will be fuel reduced. The loss of some trees for canopy separation in the APZ will not have a detrimental impact on the community as overall management will enhance the condition of the communities. The integrity of the EECs will be retained, and the APZs will increase the buffer to development.

The existing southern margins of the Tramway Creek corridor adjacent to the northern boundary of the site consist of disturbed grassy vegetation that is not native and which is extensively invaded by a variety of weeds. Such weeds are a threat to the integrity of Coastal Freshwater Wetland, which is an endangered ecological community that occurs throughout a high proportion of the wetland corridor.

The proposed APZ will be managed under a vegetation management plan for the Tramway Creek corridor and implemented without negative impacts to the endangered ecological community. In fact, the APZ could be both managed to achieve a fuel reduced zone and to remove significant weeds that threaten the native wetland vegetation. If required, additional weeding within the wetland could be undertaken as part of the vegetation management plan and could be funded by the proposed development.

I trust that I have addressed the issues satisfactorily. If you required any further clarification, please don't hesitate to call me on (02) 9868 1933.

Yours sincerely

Vanessa Bain

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