

TSA Management
Tweed Valley Hospital
771 Cudgen Road
Cudgen NSW 4895

25 February 2020

To Whom it May Concern,

Re: Response to submissions from the NSW Department of Planning, Industry and Environment (DPIE) and the Biodiversity and Conservation Division (BCD) of the Environment, Energy and Science Group in the DPIE.

1. Background

Greencap Pty Ltd (Greencap) was commissioned by TSA Management (TSA) on behalf of Health Infrastructure (HI) to prepare responses and provide further information for the biodiversity management items to support the Stage 2 approval process for the proposed Tweed Valley Hospital (the Project).

On the 11th of June 2019 the Minister for Planning and Public Spaces granted approval for the Concept Proposal and Stage 1 Early and Enabling Works for the new Tweed Valley Hospital (SSD 9575) located at 771 Cudgen Road, Cudgen (Lot 11 DP1246853). All documents relating to this consent can be found on the major project website of DPIE at <https://www.planningportal.nsw.gov.au/major-projects/project/10756>.

The Stage 2 State Significant Development application was lodged with the Department of Planning, Industry and Environment on the 27th of September 2019 and the following public exhibition period closed on the 8th of November 2019. All documents relating to this application can be found on the major project website of DPIE at <https://www.planningportal.nsw.gov.au/major-projects/project/14746>.

This letter specifically responds to submissions from the NSW Department of Planning, Industry and Environment (DPIE) dated 15 November 2019 and the Biodiversity and Conservation Division (BCD) of the Environment, Energy and Science Group in the DPIE (formerly part of the Office of Environment and Heritage) dated 7 November 2019 (Doc Ref: DOC19/876417).

2. Response to BCD submissions


Table 1: Summary of submissions and response

DPIE submission summary	BCD submission summary	Response
Biodiversity Management		
Attachment 1. 4. The submitted Biodiversity Management Plan should be amended to provide details of tree translocation.	2 a. The Biodiversity Management Plan (BMP) should be amended to specify where the single stinking <i>Cryptocarya</i> <i>Cryptocarya foetida</i> plant (sapling) to be removed from along the Cudgen Road boundary windrow has, or will be, translocated to, including mapping this location in Figure 4. If it has already been translocated, then the Biodiversity Development Assessment Report (BDAR) should report on how successful the translocation has been.	The construction contractor (Lendlease) was in the process of engaging a specialist bush regeneration subcontractor to undertake the <i>Cryptocarya foetida</i> translocation at the time this response to submission was prepared. Once awarded, as per the Stage 1 BMP item 15 this subcontractor will be responsible for selecting a suitable translocation area inside the site boundary. Once the translocation has been undertaken, the Stage 2 BMP will be updated to include details of the new location as well as report on how successful the translocation has been.
Attachment 1. 4. The submitted Biodiversity Management Plan should be amended to remove the recommendation that Duckweed and Azolla can be introduced to suppress the growth of Salvinia.	2 b. The BMP should be amended to remove the recommendation that duck weed, <i>Lemna spp.</i> or azolla <i>Azolla filiculoides</i> to be introduced to outcompete and potentially suppress the growth of Salvinia.	Stage 2 BMP to be updated with all required changes prior to commencement of works and/or in response to any Stage 2 conditions of consent.
Attachment 1. 4. The submitted Biodiversity Management Plan should be amended to define areas of environmental concerns in relation to pet restrictions.	2 c. Section 3.5 of the BMP states that no pets are permitted in areas of 'environmental conservation' on site. The section should define the environmental conservation areas and how pet access will be restricted from the area.	Noted. Areas of 'environmental conservation' include the 'retained undisturbed forest' - Stage 2 BMP Vegetation Management Zones 1.1 to 1.6. Pets will be allowed on site; however, they will be restricted by on-leash control. Stage 2 BMP to be updated with all required changes prior to commencement of works and/or in response to any Stage 2 conditions of consent.
Attachment 1. 4. The submitted Biodiversity Management Plan should be amended to provide details of the responsibilities for long term monitoring of the Mitchell's land snail.	2 d. The threatened species monitoring and reporting requirements must include details on who will commission the ongoing long term monitoring and reporting for the Mitchell's land snail, who the reports will be sent to and who needs to act on them if the results show the population is declining.	Noted. See Stage 2 BMP Section 3.2.2.2 and Mitigation Measures 33 to 36 for the responsibilities regarding the monitoring and reporting on the Mitchell's Rainforest Snail: <i>'During construction, the Safety & Environmental Manager at Lendlease will be responsible for managing the MRS monitoring and reporting program. Lendlease will rely upon input from the specialist invertebrate consultant and the bush regeneration subcontractor.'</i>

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		<i>Post construction, the Manager Capital Assets and Resources (or similar role) at LHD will be responsible for managing the MRS monitoring and reporting program, with input from external specialist subcontractors.'</i>
N/A	2 e. Implementation of the threatened species monitoring program should be included as a condition of consent	Noted.
N/A	2 f. The detailed procedure for fauna surveys, fauna rescues (if required) and rehabilitation details provided in the BMP should be adopted.	Noted.
Dam infill operation		
Attachment 1. 4. The proposed dam infill operations should be staged to ensure adequate salvage of animals during the infill works.	3 a. Include a requirement for the dam infill operations to be staged over a period of days to allow for adequate salvage of animals from the dam.	Noted. See Stage 2 BMP Section 2.3.2.7.
N/A	3 b. Require the use of turtle/yabby nets to capture and relocate turtles, eels and yabbies that might have been missed through electro fish/gill net operations	Noted. Staged approach outlined in the Stage 2 BMP Section 2.3.2.7 to be updated to include the use of turtle/yabby nets.
N/A	3 c. The capture method should employ not only opportunistic sweeps but systematic sweeps to hand net the decreasing sections of remaining water to capture any remaining fauna as it is incrementally infilled.	Noted. Stage 2 BMP Section 2.3.2.7 to be updated to include hand net systematic sweeps.
Koala safety and fencing		
N/A	5 a. Koala crossing advisory signage should be installed on Turnock and Cudgen road.	Noted.
N/A	5 b. A wildlife crossing to the northeast of the site where the Turnock Street roadway passes through the remnant vegetation between the two Turnock Street roundabouts should be established as per Mitigation Measure 34.	Noted. See Stage 2 BMP Mitigation Measure 69.
N/A	5 c. A condition of consent be included to ensure that no boundary fencing will be in the retained	Noted. See Stage 2 BMP Section 3.3.1 'As per the Stage 1 SSD application, there is no intent for a permanent boundary fence to be installed for the

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	vegetation. If any fencing is required, this should be installed in the lawn area and would also be a need to provide safe passage for koalas between the lawn area as it will contain koala food trees. Any fencing should be wildlife friendly and include a 'post and bridge' system or other koala friendly crossing in accordance with published guidelines (KRS 2009) to facilitate movement of koalas and other arboreal mammals.	<p><i>operation phase of the Project, thereby allowing movement of threatened species.</i></p> <p><i>Any boundary fencing of the site should be wildlife friendly and include a 'post and bridge' system or other Koala friendly crossing in accordance with published guidelines (KRS 2009) to facilitate movement of Koalas and other arboreal mammals'.</i></p>
Landscaping		
The mitigation measures outlined in the Concept Proposal Biodiversity Assessment Report including new and additional stepping-stone habitats for the fauna in the locality, in the form of raingardens within the cleared areas of the site.	Consideration be given to opportunities to create more 'stepping-stone' habitats throughout the lawn areas in the south-west corner and along the perimeter road as they are not required to be managed for bushfire asset protection.	<p>Stage 2 BMP Sections 2.4.1 and 3.3.2 to be updated to align with revisions of the Turf SSD2 Landscape report, see below;</p> <p><i>S3.3.2 'Primary and secondary Koala food tree species, namely; Tallowwood Eucalyptus microcorys and Small-fruited grey gum Eucalyptus propinqua will be included in the species mix for vegetated buffers (MZ 6 and 7) and in the low maintenance native landscape area (MZ 2.1)'</i></p> <p><i>S2.4.1 'Koala feed trees such as Tallowwood Eucalyptus microcorys, Small-fruited grey gum Eucalyptus propinqua and Swamp Mahogany Eucalyptus robusta will be included in the landscaping within MZ 2.1 (Zone 10 in the Turf Landscape Zonal Plan [2019c]), as long as they meet the landscaping requirements of PBP Pre-release (RFS 2018). Rather than including clusters of Koala feed trees, these would need to be single trees (due to requirement for 2-5 m canopy separation). Koala feed trees within the Inner Protection Area (IPA) is not recommended (Veronica Silver, 2019, pers. comm. 18 November)'</i></p> <p><i>Turf SSD2 Landscape Report –</i></p> <p><i>'Additional landscaping to the base of tree clusters in Zone 10 will be provided for increased stepping stone habitat. This planting will:</i></p> <ul style="list-style-type: none"> <i>• Be of an area equal to the mature tree canopy spread for each cluster.</i> <i>• Be locally indigenous native rainforest trees, shrubs and groundcovers;</i> <i>• Consist of only species approved by the Bushfire consultant (within the APZ);</i>

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		<ul style="list-style-type: none"> • Include habitat features such as rocks that have been salvaged from other areas of the Site (cleared windrows) that will create habitat for ground dwelling species’.
Details of all proposed koala food trees, including location, species and number of plantings.	The Turf report should provide details of how many Koala food trees will be planted and the locations of these plantings.	<p>Stage 2 BMP Section 3.2.1 to be updated to align with revisions of the Turf SSD2 Landscape report, see below;</p> <p>BMP MZ 6 & 7/ LZP Zone 7:</p> <p>Koala food tree species Tallowwood (<i>Eucalyptus microcorys</i>) and Small-fruited grey gum (<i>Eucalyptus propinqua</i>) will be included in the species mix for vegetated buffers.</p> <p>A total of 22 koala food trees (11 of each species) will be planted in locations as shown on the landscape zonal plan.</p> <p>BMP MZ 2.1/ LZP Zone 10:</p> <p>Recommended koala food tree species for Zone 10 are:</p> <p>Primary food trees:</p> <ul style="list-style-type: none"> • Tallowwood <i>Eucalyptus microcorys</i>; • Swamp Mahogany <i>Eucalyptus robusta</i>. <p>Secondary/supplementary food tree species:</p> <ul style="list-style-type: none"> • Small-fruited grey gum <i>Eucalyptus propinqua</i> <p>A total of 20 Koala food trees, an even mix of available recommended species listed above will be evenly distributed throughout the zone.</p> <p>BMP MZ 1.6</p> <p>Koala feed tree species will be planted in MZ 1.6 by the Bush Regeneration Contractor as required for supplementary planting within the existing vegetation where canopy gaps exist once weed control has been undertaken.</p>
	Consideration be given to planting koala food trees in the south west corner (Area 7 in the Landscape Zonal Plan (LZP)) and lawn area (labelled 10 in the LZP) along the northern boundary adjacent to the retained vegetation.	See response above.
Aviation operations		
Attachment 2 1. Aviation Report The submitted Aviation assessment must be updated to consider the impacts of the	6 a. Revise the Avipro report to consider other potential locations for flying-fox camps, as identified in the Tweed and through discussions with Tweed Shire Council and any wildlife carer organisations	<p>Stage 2 BMP Section 3.8.3 to be updated to align with any revisions of the AviPro report. See below;</p> <p><i>‘The siting of the HLS and primary considerations in HLS approach and departure path selection</i></p>

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helicopter movements on potential locations for flying fox camps surrounding the site.	operating in the region, such as the Elrond Drive, Chinderah flying-fox camp, be thoroughly investigated to ensure that if present the risks to these camps will also be a consideration for the helicopter operations.	<p><i>included avoidance of ecologically and environmentally sensitive areas and areas sensitive to noise and vibration. The planned flight approach and departure paths to the HLS align almost north-south, avoiding and minimising any impact as helicopters will rarely come close to the Flying fox camps and Osprey nests identified in the BDAR, shown in Error! Reference source not found. (AviPro 2019). Furthermore, helicopter operators have a vested interest in avoiding damage and maintenance down time of their helicopter fleets. The SSD general requirements of preferred flight path directions are detailed in the Aviation State Significant Development Report: Tweed Valley Hospital SSD-10353 (AviPro 2019).</i></p> <p><i>Nearer to HLS commissioning, the locations of Flying fox camps and Osprey nesting areas will be described to the Helicopter Emergency Medical Service (HEMS) operators. Procedures will be developed with HEMS operators to provide maximum clearance on each occasion a helicopter approaches or departs the hospital. Locations of sensitive areas may be advised to CASA/ASA for possible inclusion in relevant publications. A published “fly neighbourly” procedure could be published, pending CASA advice (AviPro 2019)’.</i></p>  <p>Figure 8 (AviPro 2019)</p>
	<p>6 b. Require an Aviation Operations Manual to be prepared that includes:</p> <ul style="list-style-type: none"> i. measures to reduce bird strike (including bats), ii. prescribes a planned approach to departure paths to the HLS that minimises impacts on environmentally sensitive areas, and iii. requires documentation of all native fauna injuries and deaths in an incident register. 	Noted.

3. Conclusion

It is noted that a revision of the Stage 2 BMP will be prepared for the Stage 2 application that considers all additional information required for construction and operations phases of the Project. This will be updated prior to commencement of Stage 2 works.

I trust that the above information is sufficient to respond to the DPIE and BCD in relation to the biodiversity related items and will allow appropriate conditions of approval to be prepared.

Regards,



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