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Attention: Ms Rachel Lonie

1/05/2019

Re: Cairncross Waste Management Facility Expansion SSD 5792
Response to Submissions

Dear Mr Young

Port Macquarie Hastings Council (PMHC) are seeking development approval to expand the existing landfill at the Cairncross Waste Management Facility (The Proposal). PMHC submitted a Response to Submissions Report (RtS) for the Proposal to the Department of Planning and Environment (DPE) on 6 December 2018. The RtS outlined design changes to the Proposal (forming the Amended Proposal) and responses to issues raised during the exhibition of the Environmental Impact Statement (EIS).

The Office of Environment and Heritage (OEH) reviewed the RtS and provided a response to DPE on 7 March 2019. The OEH noted their support for a number of changes made to the Proposal that were presented in the RtS, however a number of issues remain.

PMHC have consulted further with the OEH following the receipt of their response to the RtS in a meeting held on 11 April 2019. The issues raised by the OEH within their letter regarding the RtS and within the subsequence consultation are summarised, and additional information is provided, below.

The OEH previously recommended a 50 m wide vegetated buffer to the [Nature Reserve (NR)] and that all infrastructure, including the Strategic Fire Advantage Zone (SFAZ) be located outside the buffer. This has not been implemented…The OEH do not consider that the proposed SFAZ will maintain adequate screening for recreational users and protect the visual amenity to the NR, as claimed in the RtS, because the native understory and shrub layer will be cleared. A Visual and ecological buffer to the NR is required that is fully vegetated.

The section of the nature reserve immediately adjacent to the SFAZ is dense bushland and not frequented by recreational users. The existing fire trail, Extension Road, may occasionally be used by walkers, however the distance from this trail to the Amended Proposal Site is, at a minimum, 50 m, with the 20 m closest to the fire trail not having any understorey clearing. Given the density of the bushland and the separation distance from the nearest track that could possibly be used recreationally (noting that this is a fire trail and not actually an identified recreational walking track) screening for recreational users is considered sufficient and any visual impacts would be negligible.

An additional 50m wide vegetated buffer separating the SFAZ from the Rawdon Creek Nature Reserve was considered during the Concept Design Phase. Key consideration was given to optimising available landfill space in accordance with the strategic need for the Amended Proposal to necessitate PHMC's future waste disposal needs (refer to Section 3 and Appendix C of the EIS).

The SFAZ would result in minimised impacts from the operation of the Amended Proposal on the adjoining Nature Reserve. Consideration for how the SFAZ and fire trail will adequately mitigate potential environmental impacts generated by the Amended Proposal is provided below:

- **Visual:** The 30 metre-wide area would be maintained such that only understory canopy of the SFAZ would be cleared. This would maintain the visual amenity of the SFAZ area, and provide adequate screening of the Landfill site to recreational users of the Nature Reserve. Further, beyond the SFAZ an additional 20 m of vegetation that would not be subject to any understorey clearing would provide a buffer between the Amended Proposal site and the nearest recreational walking track
- **Litter:** Regular maintenance of the SFAZ (to be outlined within the Vegetation Management Plan – refer to revised mitigation measure FF-11), and inspection of fencing, would include removal of litter originating from the landfill site within this area.
- **Weeds:** The risk of spread of pest and noxious weeds from the landfill site into the adjoining Nature Reserve would be minimised through regular maintenance of the SFAZ to be detailed within the Vegetation Management Plan (refer to mitigation measure FF-11)
- **Fauna habitat:** Although some understorey vegetation clearing would be required within the SFAZ, this area would remain largely undisturbed and provide an additional area and connection for fauna species (particularly bird species) compared to areas proposed initially within the EIS.
- **Water:** No surface discharges into the Nature Reserve are anticipated as part of the Amended Proposal. Surface water would be directed to one of the many operational sediment basins located around the Amended Proposal Site, before naturally discharging via existing flow regimes. Release of tested, clean captured groundwater, as per methods described within the responses above would be undertaken downstream of the Amended Proposal Site. Ambient water monitoring would also be undertaken to ensure that water quality surrounding the Amended Proposal Site is not compromised as a result of the development. Details of this plan would be outlined within the Water Management Plan (refer to revised Mitigation Measure W-03, Section 8 of this RtS).

The width of the SFAZ is considered adequate to minimise impacts to the adjoining Nature Reserve. Provision of an additional vegetated buffer is not considered likely to increase the extent of mitigation potential. The inclusion of an additional 50 m buffer is therefore considered unnecessary. Further, it would directly inhibit the objectives of the Amended Proposal; to maximise landfill airspace.

The OEH also recommended the sediment basin, leachate tank and pump station (approximately 163 m by 20 m in size) be located outside the 50 m wide koala corridor in the Stage 2 and Stage 3 development. This has not been implemented.

The Stage 2 sediment basin is located outside the koala connectivity corridor, with the boundary fencing and access/fire trail located between the basin and the koala corridor. It is noted however that the Stage 2 sediment basin will likely need to encroach into the koala corridor by 30 m, over a length of approximately 163 m. It has been identified that this effect would create a localised 'squeeze

point' within the corridor. It is however expected that the remaining 20 m would provide sufficient area for fauna movement, for the following reasons:

- The portion of corridor that would be narrowed under the Amended Proposal would be limited to areas bordering the sediment basin. This basin would naturally provide an additional buffer to the corridor from potential impacts associated with active landfill activities, including noise and vibration, litter migration, light spill, odour and the introduction of weeds.
- The extent of narrowing is considered to be minor (30 m reduction over a 163 m span), and the remaining corridor area would be subject to ongoing management within the Vegetation Management Plan (refer to Mitigation Measure FF-11).
- The koala corridor is unfenced on the southern side, and the Extension Road is a forest track that rarely has traffic. While this road has no vegetation, this track could be used if necessary, thereby effectively reducing the 'squeeze point' generated through presence of the basin.

It is also noted that this sediment basin will decrease in size over time and will be removed following rehabilitation of the landfill and is therefore considered temporary in nature. In the initial year, following installation of the sediment basin, the basin would be wholly contained within the Stage 2 area and would only encroach on the koala corridor once landfill within Stage 2 has substantially progressed. The sediment basin sizing can potentially be refined to extend the width of the koala corridor post-closure (i.e. once Stage 2 is rehabilitated).

The opportunity to revise the location and the layout of the sediment basin has been considered throughout the preparation of the Concept Design for the landfill. In response to comments received during the exhibition of the EIS amendments were made to the layout and the size of the sediment basins. As noted in Section 6.3.3 of the RtS the Stage 2 sediment basin was reduced in size to reflect minor changes to final landform slope conditions, and to optimise land used for the koala habitat corridor to the south of the Stage 2 site.

Further refinements may be possible in future, however it is noted that due to the topography of the Amended Proposal site it is not considered possible to increase the depth of the sediment basin. The location of the sediment basin is necessary to adequately capture all runoff from the Stage 2 landfill cell while also maximising the airspace within the landfill cell.

The RtS in addressing the Rural Fire Services response states that the koala corridor and the SFAZ will be implemented from the commencement of the Amended Proposal providing a permanent 50 m fire break to the south and a 30 m fire break to the south-east. The leachate tanks require 20 m of defendable space around them and this does not seem to have been accounted for in the proposed layouts in the revised concept plan diagrams.

As noted in Section 6.1 of the Bushfire Assessment Report (Appendix Q of the EIS) the management of the defendable space to the leachate tanks should constitute regular slashing to limit vegetation [grass] height to 150 mm during the Bushfire Danger Period. Both leachate tanks, as shown in the Amended Proposal designs, are located on the inside of the proposed koala corridor and SFAZ areas and are therefore subject to a minimum 20 m slashable area. Shrubs and understory will also be cleared in this 20 m area, as well as pruning of low tree branches within 2 m of the ground to prevent ground fire from spreading into the tree canopy and tree crowns will be separated and maintained by at least 2 m so that the canopy is not continuous.

It is noted that, in regard to the koala corridor and the SFAZ, there is a need to retain as much vegetation as possible for koalas and other fauna species whilst ensuring there is adequate bushfire protection. Proposed management measures to address this are below:

- Maintain understory clearing to ensure minimal fuel load at ground level. The need for canopy separation can be avoided through regular management of ground level combustible material. Understory clearing should comprise:
  - Grass length maintained to less than 150 mm
  - Shrubs and understory vegetation to be cleared
- Keep areas under fences, gates and trees raked and clear of combustible fuels and keep sediment basin discharge flow path free of leaf litter and combustible generally
- Access roads will be well maintained and inspected to ensure that firefighting access is adequate.

These measures are considered appropriate to meet the proposed management measures described in the Bushfire Assessment Report.

While [OEH] note that the basin will be reduced in size over time and will be removed following rehabilitation there is inadequate justification that the remaining 20 m will provide enough area for fauna movement. The OEH does not consider the basin and the associated infrastructure to be compatible with the objective to provide an adequate corridor for koala and other fauna movement and it will prevent the effective revegetation and restoration of this area.

The Amended Proposal currently allows for the development of a koala habitat linkage corridor 50 m wide at the southern end of the proposed extension. The corridor will be bound by the proposed extension to the north and Extension Road (a minor dirt road) to the south. State forest is located to the south of Extension Road. The aim of retaining the koala corridor is to facilitate continued movement of koalas between larger patches of habitat to the east and west following removal of vegetation for the Amended Proposal. It is acknowledged that the koala corridor will be temporarily ‘’squeezed’ to a width of 20 m for a length of approximately 163m. The 20 m width is considered adequate to facilitate koala movement for a number of reasons, outlined below.

- The distance where the corridor would be pinched is considered to be a small distance (163m). Koalas are known to traverse distances of 3 to 4 km between habitat patches, often across substantially more cleared area than the proposed koala corridor.
- The koala corridor and adjacent areas are absent of regular traffic or pet dogs, both of which are considered to be the most significant threats to koalas while traversing the ground between trees.
- Only the understorey would be cleared for bushfire protection. The need to prevent canopies from touching can be avoided via diligent clearing of understorey allowing a high density of trees to be achieved. Koalas would have access to trees to ascend in the event of a danger becoming present. Given the density of tress within the proposed koala corridor, koalas would not have large areas to traverse in the event of danger before reaching a tree. The koala corridor is proposed to be revegetated to enhance the biodiversity value of the corridor and to increase the density of koala feed tress throughout it. Revegetation of the corridor will commence upon approval of the Amended Proposal during the Stage1 landfilling activities. While the corridor is being revegetated koalas will be able to traverse both the corridor and the existing vegetated area within the Stage 2 landfill cell (north of the corridor) which has a higher density of vegetation. The

corridor will therefore have had approximately 20 years of revegetation prior to it becoming the primary koala corridor ensuring adequate vegetation coverage for use of the corridor by koalas.

It should also be noted that the koala population being catered for by the koala corridor is considered to be very small. In 2018, PMHC released their Draft Koala Recovery Strategy. The Amended Proposal Site and surrounding areas are not identified within the Strategy as areas of koala activity or as having koala habitat. Notwithstanding this, evidence of koala presence in the area was identified during the preparation of the Biodiversity Assessment Report (Appendix P of the EIS). The assessment concluded that:

- Activity on the site is likely to involve transient use by an individual as opposed to the presence of a resident population of several koala
- The subject site and the immediate surrounding vegetation is not large enough in size nor of an adequate stage of growth/quality to support a resident population of koala
- Any risk that the removal of vegetation at the site would result in a reduction in the overall area of occupancy of the remaining, broader koala population is negligible.

The koala corridor, therefore, is being provided for a minimal number of individual koalas, and not a broader koala population. Based on the above considerations, the provision of the koala corridor, even when considering the temporary 'squeezed' location, is considered adequate to support the movement of koalas between habitat patches. Given the highly minimal number of individual koalas that may be present in the area, the implementation of a koala corridor is considered in excess of the requirements or demands for those koalas.

When considering the strategic importance and justification for the Amended Proposal, the loss of airspace required to relocate the sediment basin and leachate infrastructure to be contained wholly within the Stage 2 area is considered unnecessary in light of the small number of koalas the corridor is proposed to cater for, and the adequacy of the corridor to facilitate movement of those koalas.

Arcadis, on behalf of PMHC, trust that the above information addresses the comments made but would welcome the opportunity to discuss these further with OEH upon request.

Yours sincerely

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