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Your ref: SSD 9667

Mr William Hodgkinson
Planning and Assessment Group
Department of Planning, Industry and
Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Hodgkinson

Subject: EES comments on Response to Submissions and Preferred Project Report for Light Horse Interchange Business Hub Eastern Creek – SSD-9667 – 165 Wallgrove Road and 475 Ferrers Road Eastern Creek

Thank you for your email of 12 February 2019 requesting advice on the Response to Submissions and Preferred Project Report (RTS) for this State Significant Development (SSD).

The Environment, Energy and Science Group (EES) has reviewed the RTS and provides its recommendations and comments at Attachment A.

If you have any queries regarding this matter, please do not hesitate to contact Janne Grose, Senior Conservation Planning Officer on 02 8837 6017 or at janne.grose@environment.nsw.gov.au

Yours sincerely

S. Harrison 03/03/20

Susan Harrison

**Senior Team Leader Planning
Greater Sydney Branch
Environment, Energy and Science**



Attachment A

Subject: EES comments on Response to Submissions and Preferred Project Report - Light Horse Interchange Business Hub Eastern Creek – SSD-9667 – 165 Wallgrove Road and 475 Ferrers Road Eastern Creek

The Environment, Energy and Science Group (EES) has reviewed the following documents:

- Response to Submissions and Preferred Project Report (RTS) – 10 February 2020
- Appendix A - Site Survey
- Appendix B - Concept Masterplan – January 2020
- Appendix C - Landscape Plans
- Appendix G - Flood Assessment (FA) – December 2019
- Appendix H - Plan of Subdivision – Revision 8
- Appendix J - Biodiversity Development Assessment Report (BDAR) – version final 3.1 – 30 January 2020
- Appendix L1 – Draft Aboriginal Cultural Heritage Assessment Report (ACHAR) – February 2020
- Appendix L2 – Draft ACHAR appendices
- Appendix L3 – Aboriginal Cultural Heritage response from Extent to DPIE– 16 December 2019
- Appendix M - Creek Realignment Design Report (CRDR)– 24 January 2020

and provides the following comments.

Aboriginal Cultural Heritage

EES acknowledges the results of the sub-surface archaeological test excavation program recorded in the draft ACHAR and undertaken in consultation with the registered Aboriginal parties to the project. EES supports this ongoing consultation and has no further concerns regarding pre approval assessment.

EES also notes and supports the avoidance and conservation of the Eastern Creek terrace area, the proposed management and mitigation of the harm to the Erskdale Creek terrace area and the development of long-term management of Aboriginal objects recovered within the project area under the proposed Aboriginal Cultural Heritage Management Plan (ACHMP).

Please note that curation and long-term management of Aboriginal objects recovered within the project area, that involves the removal of those objects from within the approval boundary for any purpose other than temporary storage for archaeological analysis, is not covered by the development consent. The long-term storage requires a Care Agreement under 85A(1)(c) of the *National Parks and Wildlife Act 1974*.

Biodiversity

Bushland Corridor

EES previously recommended the Bushland Corridor be widened along the western side of Eastern Creek within Wallgrove Road Precinct 6 to include part of the site for the reasons outlined in its EIS submission of 6 September 2019.

As previously advised, compared to elsewhere in the Western Sydney Parkland, the Bushland Corridor in Precinct 6 is constrained and reduced in width by development, especially adjacent to Austral Bricks in the southern part of Precinct 6 and in the vicinity of the Western Sydney International Dragway. EES recommended the corridor be widened to improve its robustness, especially with increasing visitor numbers using the parkland for recreational purposes.

The proposed development will remove the potential to widen the Bushland Corridor along this section of creek as it will remove/narrow the existing open vacant grassland and native vegetation at the site.

The RTS has not addressed the issues raised by EES in relation to the Bushland Corridor. EES repeats its recommendations, namely:

- the Bushland Corridor is widened along the western side of Eastern Creek to include part of the site
- native vegetation within Lots 6, 7 and 8 is included in the Bushland Corridor and the Concept Masterplan is amended to include Lot 8 (i.e. where the bio-retention basin is proposed) in the Bushland Corridor and Lots 6 and 7 are reconfigured to retain intact Alluvial Woodland and under-scrubbed Alluvial Woodland which is contiguous with the remnant vegetation located to the south of the site
- the bio-retention basin is located closer to the proposed Lots 1-5.

Avoid and minimise impacts to biodiversity

The EES submission on the EIS included that the level of justification for avoidance was not adequate to demonstrate why the footprint cannot be reduced further. EES notes that while the RTS has provided additional examples of how avoidance has occurred in the design of the footprint, there is no further justification provided on why the footprint cannot be reduced further. The updated BDAR also provides no further information on this issue. Therefore, EES considers the information in this regard is still inadequate. EES notes that some guidance on this issue is provided in section 1.2.1 of the BAM Stage 2 Operational Manual (released September 2019).

Watercourses and Riparian Corridors

EES recommended a vegetation management plan (VMP) be prepared to detail how the riparian corridors along Eastern Creek, Reedy Creek and the realigned Erskdale Creek are to be protected and restored. The RTS confirms:

- a VMP will be prepared and will include appropriate vegetated riparian zones (page 25)
- the VMP will include principles for rehabilitating the riparian corridors with local provenance native vegetation (page 26).

A condition of consent should be included which requires a VMP to be prepared and implemented.

Realignment of Erskdale Creek

The updated BDAR confirms an approximate 300m stretch of Erskdale Creek is proposed to be realigned (page 6) and the Natural Resource Access Regulator still has in-principle support for relocating the creek (section 5.2, page 53).

EES previously advised that if the creek is flowing, or it retains pools of water at the time of the proposed works, adequate details/mitigation measures need to be provided prior to realigning/filling the creek to protect and manage impacts on:

- native fauna known to occur, or potentially inhabit the creek (including measures to relocate any water dependent native fauna)
- the downstream environment including measures to mitigate impacts on the instream habitat and downstream water quality.

The RTS advises the realignment and filling the creek will be detailed in the VMP and it will include measures to avoid impacts to native fauna and downstream environments (page 26). Rather than include this detail in the VMP, EES recommends that prior to any works commencing on the creek a Fauna Relocation Plan is prepared to develop a strategy for the relocation of any native aquatic fauna and the acclimatisation of aquatic fauna to different water.

It is recommended a condition of consent is included which requires a Fauna Relocation Plan to be prepared and implemented.

Bridge Crossing

EES recommended alternative solutions be considered to avoid constructing a new bridge over Eastern Creek and removing 2.12 ha of relatively intact endangered River-Flat Eucalypt Forest. The RTS provides a response as to why site access via Ferrers Road and the bridge crossing is the most suitable option (section 3, pages 9-10). To ensure 2.12 ha of River-Flat Eucalypt Forest is not unnecessarily impacted by the proposed development the Department needs to be satisfied that this is the only available option to access the site.

EES previously advised if the Eastern Creek bridge must be constructed, it should be designed to avoid and minimise the clearing/disturbance of native vegetation and to maintain and improve riparian/terrestrial connectivity. The RTS notes the future design will consider opportunities to further maximise light and moisture penetration under the structure to encourage native plant growth where practical (page 26).

EES recommends a condition of consent is included which requires the bridge design to minimise the clearing/disturbance of native vegetation and to maximise riparian/terrestrial connectivity under the bridge by allowing light and moisture to penetrate under the structure to encourage native plant growth.

Site Landscaping

EES previously recommended the Plant Schedule list is amended and a diversity of local native provenance species are planted in the street planting and development lots (rather than plant exotic or non-local natives). The RTS notes the Plant Schedule has been amended to include a diversity of local native species (page 27). The amended Plant Schedule (Appendix C) has removed the exotic London Plane Tree as a street tree and replaced it by Grey Box (*Eucalyptus moluccana*). EES supports the use of Grey Box as a street tree, as it is a local native species of the Cumberland Plain Woodland (CPW). As Forest Red Gum (*Eucalyptus tereticornis*) also occurs in the CPW on site (page 27 of BDAR), EES recommends it is also added to the street tree plant list.

EES repeats that a diversity of local native provenance species should also be used in any landscaping of the development lots.

Urban Tree Canopy

To assist mitigate the urban heat island effect at the site and improve the urban tree canopy and local habitat, EES recommended the development replaces any removed trees at a ratio greater than 1:1. The RTS does not address how the development will mitigate the heat island effect on the site. The RTS indicates the replacement of removed trees at a ratio of 1:1 within the project footprint is not feasible (page 27).

The RTS does not provide details on the total number of trees that are to be removed from the site and hence the number of replacement trees required if a tree replacement ratio of greater than 1:1 were applied. In terms of replacement trees, the Landscape Plan indicates 239 trees are to be planted on site (comprising 130 street trees and 109 trees in the landscaped buffer zone). It is unclear how many trees are proposed to be removed from along Eastern Creek (if the bridge crossing option is approved), or from along Eskdale Creek or how many replacement trees are to be planted along the creeks.

EES recommends the proponent needs to provide details on the total number of trees proposed to be removed and the total number of replacement trees.

EES recommended the development replaces any trees removed with local provenance native plant species from the native vegetation community which once occurred in this locality to enhance local biodiversity, rather than use non-local native or exotic plants. The RTS confirms site landscaping would include locally native tree representative of the vegetation communities which previously occurred across the site (page 27).

EES suggested advanced and established local native trees are used preferably with a plant container pot size of 100 litres or greater. The updated Landscape Plan proposes to use a pot size of 100L for the street tree planting and the Buffer Zone planting. The RTS notes pot sizes will be selected based on the conditions for establishment (page 27).

EES advised that sufficient area/space needs to be provided to allow the trees to grow to maturity. In response the RTS notes areas of the subject land are to be managed in accordance with the VMP (page 27). It is unclear if the VMP applies to the whole site (such as street planting, landscaped buffer areas) or only to the riparian corridors. The CRDR indicates the VMP applies only to certain riparian areas along the creeks and not the whole site (Figure 4, page 8).

The proponent needs to ensure that any tree planting across the site allows sufficient area/space to allow the trees to grow to maturity. EES previously recommended the Landscape Plan include this detail to demonstrate that this can occur.

Mitigation Measures

EES recommended a number of additional biodiversity mitigation measures be included as part of this development. The RTS notes the BDAR has been amended to include the requested mitigation measures (page 28). EES provides the following additional comments in relation to this:

- EES previously recommended that native trees to be cleared should be salvaged (for example tree hollows and tree trunks) and placed in the riparian corridors, Bushland Corridor, landscape areas etc to enhance habitat. In response, the RTS indicates “any significant trees to be cleared will be salvaged for use within the area to be managed as part of the VMP” and that the seven hollowing bearing trees to be removed are to be salvaged for reuse in the Eskdale Creek realignment (page 28). The tree trunks should also be salvaged and used in the sites landscape buffer areas, the Bushland Corridor and also along the riparian corridors of Eastern Creek and Reedy Creek not managed by the VMP.
- The BDAR refers to “the translocation of high value and suitable propagules and significant vegetation from areas to be cleared” (section 6.3.2, page 63). EES repeats that any juvenile native plants to be removed should be translocated to the riparian corridors, Bushland Corridor and landscape buffer areas.

- The RTS refers to the translocation of topsoil (page 28) but this mitigation measure is not included in section 6.3 of the BDAR. Topsoil from native vegetation to be cleared should be collected and used in the rehabilitation of the Bushland Corridor, riparian corridors and landscaped buffer areas.
- EES repeats that seed from native plants to be removed should be collected and used in the riparian corridors, Bushland Corridor and landscape buffer areas.
- EES recommended any tree hollows to be removed are replaced at a ratio greater than 1:1. The RTS indicates the hollow-bearing trees to be removed would be replaced at a ratio of 1:1 (page 28). Prior to any loss of the existing tree hollows, replacement tree hollows and/or nest boxes should be provided.

Recommended Conditions

EES recommends the following condition of consent is included to prepare a VMP for the rehabilitation of disturbed riparian corridors:

- 1) A vegetation management plan shall be prepared to protect and restore the riparian corridors along Eastern Creek, Reedy Creek and the realigned Erskdale Creek. The plan should include:
 - a scaled plan which locates the watercourses; top of highest bank; existing native vegetation along the creeks; the riparian corridor widths proposed along Eastern Creek, Reedy Creek and the realigned Erskdale Creek (measured from the top of the highest bank); the boundary of the site; the development footprint and proposed asset protection zones
 - details on the native vegetation communities and plant species that currently occur along Eastern Creek, Reedy Creek and Erskdale Creek
 - details on the local native provenance plant species (trees, shrubs and groundcovers) to be planted – a diversity of local native species should be planted
 - include details on the location and number of trees and other plants that are proposed to be planted
 - specify that plants are to be propagated from locally sourced seeds to ensure genetic integrity
 - plant maintenance regime- riparian vegetation should be regularly maintained and watered for 12 months following planting. Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species.

EES recommends the following is included as a condition of consent for the site landscaping including street tree planting, the landscape buffer areas and development lots:

- 2) A landscape plan shall be prepared for the landscape buffer areas, street planting and development lots and include details on:
 - the native vegetation community (or communities) that occur or once occurred in the locality
 - a list of local native provenance species to be used in the landscaping from the relevant native vegetation community or communities rather than plant non-local natives or exotic species
 - the quantity and location of plantings
 - the pot size of the local native trees to be planted - advanced and established local native trees preferably with a plant container pot size of 100 litres, or greater for local native tree species which are commercially available. Other local native tree species which are not commercially available may be sourced as juvenile sized trees or pre-grown from provenance seed



- the area/space required to allow the planted trees to grow to maturity
 - plant maintenance regime. The planted vegetation must be regularly maintained and watered for 12 months following planting. Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species.
- 3) Trees removed by the development shall be replaced at a ratio greater than 1:1.
- 4) Native trees removed (including tree hollows and tree trunks greater than approximately 25-30cm in diameter and 3m in length) shall be salvaged and used in the landscaped buffer areas on site; the realigned Erskdale Creek riparian corridor; the Bushland Corridor and the riparian corridors along Eastern Creek and Reedy Creek.
- 5) A Fauna Relocation Plan shall be prepared by a suitably qualified and experienced ecologist prior to filling the existing Erskdale Creek. The Plan must include details on, but not be limited to, the following:
- the native fauna species known to inhabit and/or use the creek which require transfer from the creek
 - the methodology proposed to transfer the fauna
 - the location and suitability of the proposed relocation sites
 - any potential impacts of relocating the fauna to the relocation sites
- A suitably qualified and experienced ecologist is to be present during the filling of the creek.

End of Submission