Our ref: DOC21/736004
Senders ref: SSD-15001460

Mr Navdeep Singh Shergill
Planning and Assessment Group
Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street
PARRAMATTA NSW 2150

Dear Mr Singh Shergill

Subject: EES comments on Environmental Impact Statement for Hawkesbury Centre of Excellence – SSD-15001460 – 2 College Street Richmond

Thank you for your email of 17 August 2021 requesting advice on the Environmental Impact Statement (EIS) for this State significant development.

The Environment, Energy and Science Group (EES) appreciates Planning and Assessment Group giving it an extension in which to provide its comments. EES has reviewed the EIS and provides its recommendations and comments at Attachment A.

EES asks that it not been assigned a consultation role in the conditions of consent for this project unless EES agrees to the role.

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

15/09/21

Susan Harrison

Senior Team Leader Planning
Greater Sydney Branch
Biodiversity and Conservation

Attachment A

Subject: EES comments on Environmental Impact Statement for Hawkesbury Centre of Excellence – SSD-15001460 – 2 College Street, Richmond

The Environment, Energy and Science Group (EES) has reviewed the following reports for this SSD:

- Environmental Impact Statement – 5 August 2021
- Appendix D – Architectural drawings
- Appendix F – Landscape SSDA Package
- Appendix O - Biodiversity Development Assessment Report (BDAR) – July 2021
- Appendix P – Arboricultural Impact Assessment Report (AIAR)- 7 July 2021

and provides the following comments.

Biodiversity

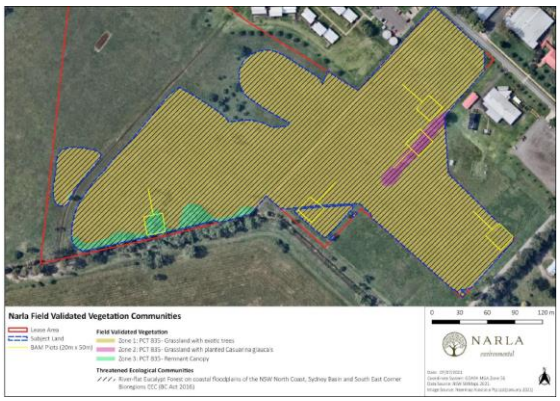
Avoid and minimise impacts

The EIS notes the SSD is expected to impact one Plant Community Type (PCT) 835: Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion which conforms to the endangered ecological community (EEC) River-flat eucalypt forest on coastal floodplains of the NSW North Coast, Sydney Basin and Southeast Corner bioregions (RFEF). It indicates the development will require removal of approximately 4.19ha of PCT 835 across the site. Three (3) ecosystem credits for PCT 835 are required to be offset to mitigate the impacts upon biodiversity because of the development (section 7.12.3).

The EIS also indicates that most vegetation within the site will require removal to accommodate the proposed development, except for the vegetation marked for retention which will be managed as an APZ. The EIS also states the removal of vegetation within the site has largely been avoided, as the development is mostly positioned in an area that has been historically cleared and having the least biodiversity values (section 7.12.3).

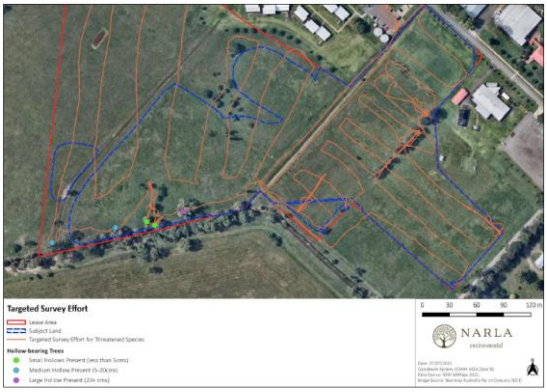
Comparing the Proposed Site Plan in Appendix D with Figures 11, 14 and 15 from the BDAR shows PCT 835 – remnant canopy and hollow bearing trees occur where it is proposed to locate agricultural plots and a dam/OSD and that the remnant canopy is to be impacted. EES seeks clarification as to whether the proposed agricultural plots and a dam/OSD can be relocated and/or reconfigured on the site to avoid and/or minimise clearing of the PCT 835 – remnant canopy and the hollow bearing trees. While EES acknowledges the vegetation in this zone is degraded, all efforts should still be made to avoid impacting endangered communities and threatened species habitats, unless such losses can be adequately justified.

The AIAR indicates 7 trees will need to be removed for the proposed development (trees 5, 6, 7, 8, 9, 26 and 27) and a further five juvenile street trees can either be removed or transplanted (see section 4.2 and Table 1). The AIAR indicates trees 5-9 are native *Casuarina glauca* (Swamp Sheoak) and trees 26 and 27 are non-native trees *Pyrus ussuriensis* (Manchurian Pear) (see Appendix 3). The AIAR differs to the BDAR which states all vegetation in Vegetation Zone 3 will be removed to allow for the proposed development (section 3.3.1) and that “native canopy species consist of *Angophora subvelutina* and *Eucalyptus tereticornis”* (Table 3). Plate 3 in the BDAR also shows regrowth eucalypt trees occur in Vegetation Zone 3. The AIAR makes no reference to the removal of *Angophora subvelutina* and *Eucalyptus tereticornis.*



Source: BDAR – Figure 11 - field validated vegetation mapping and location of BAM plots

Source: BDAR – Figure 15 impacts on native vegetation and offset requirements



Source: BDAR – Figure 14 targeted survey effort for species credit species within the Subject land

Source – Appendix D – Architectural Drawings Proposed Site Plan

Identification of vegetation communities:
Table 1 of the BDAR states there is no PCT 849 on site because this PCT occurs on shale, and the subject land is located on alluvial soils. However, there is a patch of PCT 849 within 170m of the site and both the site and the PCT 849 patch are on the same soil type (Berkshire Park). While EES acknowledges the vegetation on site is very degraded, which makes choosing the appropriate PCT difficult, further justification is needed in this case to demonstrate why vegetation on site does not accord with PCT 849.

Assessment of threatened species impacts
EES notes fifteen threatened species have been assumed present because surveys could not be carried out at the appropriate time of year. Species polygons have been prepared for these species and credits have been calculated. It is noted that further surveys are to be undertaken during the appropriate survey period. If appropriate surveys cannot be conducted, then offsets are to be purchased for these species. EES considers that while this approach is permissible under the BAM, it is not ideal. All relevant constraints should be identified prior to the scoping of the proposed footprint and the impact assessment. In regard to this assessment, EES recommends that if consent is to be granted, it should be conditional on additional surveys being undertaken and no clearing or ground works can take place until this has occurred.

Other comments on the BDAR

- EES has undertaken this review of the BDAR without access to the assessment in BOAMS. In future, the assessor should 'submit to consent authority'.
- Also, EES has undertaken this review without access to the spatial data. Requests from Planning and Assessment Group (PAG) to review an EIS must be accompanied by spatial data that is relevant to the BDAR. It is not clear if spatial data has been supplied to PAG by the assessor and not forwarded.
- The date of the BDAR is July 2021. The BDAR should include an accurate date, so that it can be verified that the date of submission of the BDAR is within 14 days of the date on the credit report (as per section 6.15 of the *Biodiversity Conservation Act 2016*).

Pre- clearing of vegetation

Seed collection from native plants to be removed

EES recommends that prior to the removal of any native vegetation:

- seed from the native plants including trees, shrubs, and groundcover species approved for removal are collected and propagated and used in the SSD plantings
- a new mitigation measure is included for a native vegetation seed collection program to be developed.

Translocation of juvenile plants

EES recommends that any juvenile native plants to be removed by the SSD should be replanted in the landscaped planting areas. The juvenile plants must be translocated prior to any earthworks and clearing of native vegetation commencing. The plants should be relocated when plant growth conditions are ideal to give the native plants the best possible opportunity to survive and should be maintained until established.

Pre-clearance fauna surveys and Relocation of native fauna

EES supports the inclusion of the mitigation measure for a qualified and experienced ecologist to undertake extensive pre-clearance surveys but recommends the mitigation measure is amended as follows:

Prior to ***removing any vegetation and/or*** construction, the applicant should commission the services of a qualified and experienced Ecologist Consultant (minimum 3 years' experience) with a minimum tertiary degree in Science, Conservation, Biology, Ecology, Natural Resource Management, Environmental Science or Environmental Management. The Ecologist must be licensed with a current Department of Primary Industries Animal Research Authority permit and New South Wales Scientific License issued under the BC Act. The Ecologist will be commissioned to:

- Undertake any required targeted searches for threatened flora prior to vegetation clearing.
- Undertake an extensive pre-clearing survey, ~~delineating~~ ***to delineate, map, tag and mark*** habitat-bearing trees and shrubs to be retained/removed ***and other fauna habitat features and determine the presence of any resident native fauna using nests, dreys, hollows, logs etc***
- Supervise the clearance of trees and shrubs (native and exotic) in order to capture, treat and/or relocate any displaced ***native*** fauna ***to an appropriate nearby location***.
- ***Remove sections of a tree containing a hollow or habitat prior to clearing and felling the tree.***

Replacement nest boxes/tree hollows/habitat improvement

EES recommends the SSD includes the following mitigation measures:

- ***Where hollow dependent native fauna are found using existing hollows, compensatory tree hollows should be provided prior to removing the tree hollows and prior to the release of the hollow dependent fauna unless the removed tree hollows can be relocated and installed on the same day they are removed***.

- ***The applicant should:***
  - ***provide details on the size, type, number, and location of nest boxes required – this would be based on the results of the pre-clearing survey***
  - ***install replacement nest boxes prior to any vegetation removal (preferably one month prior), to provide alternate habitat for hollow-dependent fauna displaced during clearing***

- ***salvage and relocate the tree hollows approved for removal to appropriate locations on the same day the tree hollows are removed and prior to the release of any native fauna found using the tree hollows.***
- ***install other habitat features such as logs (see below) and bee hotels.***

It is suggested the nest boxes are monitored on an ongoing basis to determine if they are being used by native fauna. The installation of habitat features such as the nest boxes and the monitoring of them provides a great educational opportunity for the school.

Clearing of native vegetation

Reuse and removed trees and hollows

To enhance habitat, EES recommends the project reuses native trees that are to be removed including hollows and tree trunks (greater than approximately 25-30cm in diameter and 2-3m in length) and root balls within the areas on-site that are to be replanted with local native species. Please note the diameter of the log (greater than 25-30 cm in diameter) is important because it impacts thermal qualities and longevity of the material.

If the project is not able to reuse all removed native trees, EES recommends a condition of consent is included that the proponent consults with the local community restoration/rehabilitation groups, Landcare groups, and relevant public authorities including NSW National Parks & Wildlife Service, local councils, and Greater Sydney Local Land Services prior to any clearing commencing to determine if the removed trees can be re-used by others in habitat enhancement and rehabilitation work. This detail including consultation with the community groups and their responses should be documented in the CEMP***.***

EES recommends the project includes the following condition, that the CEMP requires that:

- ***The Proponent must where it is practicable reuse any of the native trees that are to be removed as part of this project, including tree hollows, tree trunks (greater than 25-30 centimetres in diameter and 2-3 metres in length), and root balls to enhance habitat:***
  - ***Any hollow sections of wood removed should be salvaged and re-located to appropriate locations to provide natural nest boxes prior to the release of any native fauna found using the tree hollows.***
  - ***If removed native trees are not able to be entirely re-used by the project, the proponent should consult with local community restoration/rehabilitation groups, Landcare groups, and relevant public authorities including NSW National Parks & Wildlife Service, local councils, and Greater Sydney Local Land Services prior to removing any native trees to determine if the removed trees can be reused in habitat enhancement and rehabilitation work. This detail including consultation with the community groups and their responses must be documented in the CEMP.***

Revegetation and Landscaping

Tree replacement ratio

The EIS includes the following mitigation measure for tree replacement:

- All trees proposed for removal should be replaced at a ratio of 2:1 elsewhere within the site, with mature, locally mature species representative of the River-flat Eucalypt Forest Endangered Ecological Community (section 7.12.4, page 89 and Table 30, page 122).

The BDAR requires a tree replacement ratio of 1:1 (Table 15, page 72). EES recommends any trees removed are replaced at a ratio greater than 1:1 (for trees not covered by a biodiversity offset strategy) and considers that a tree replacement ratio of 2:1 is preferable to 1:1 to mitigate the urban heat island effect and enhance habitat particularly as a number of threatened species have been assumed present within the subject land.

The RtS should provide details on:

- the total number of trees to be removed by the project, the tree species, and whether the trees to be removed are exotic, invasive, non-local natives or local native species
- the number of replacement trees, the replacement planting locations, and the replacement plant species.

Use of local native provenance species

EES supports the inclusion of the mitigation measure in the EIS and the BDAR for landscaping works across the site to use where possible native vegetation representative of the River-flat Eucalypt Forest Endangered Ecological Community for site landscaping to provide increased habitat features across the site (section 7.12.4, page 89 of EIS). The EIS also states that the planting design for the site combines deciduous and native species (section 7.3.3, page 60).

EES recommends the landscape planting uses a diversity of local provenance native species from the relevant native vegetation community (or communities) that occur, or once occurred on the site (rather than use exotic species or non-local native species).

The EIS indicates the proposed trees will include species of the Cumberland Plain Woodland characterised by the following: *Eucalyptus tereticornis* and *Eucalyptus moluccana*. (section 6.3.15, page 51). Section 7.3.3 of the EIS notes 14 new *Eucalyptus tereticornis* trees are to be planted along the eastern boundary of the site entrance and Eucalyptus saplings will be planted heavily in the western corner of the site and the far south eastern corner outside of the accommodation area (page 60) but these native planting areas are not identified on Figure 10. It is recommended the proposed landscaping plan is amended and where possible the area of native plantings is increased.

EES recommends the following conditions of consent are included:

- ***Any planting/ landscaping, rehabilitation associated with the project shall use a diversity of local provenance native trees, shrubs and groundcover species (rather than exotic species or non-local native species) from the relevant native vegetation community (or communities) that occur or once occurred along the rail alignment / local area where agricultural plantings are not required.***
- ***Tree planting shall use advanced and established local native trees with a minimum 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.***
- ***Enough area/space is provided to allow the trees to grow to maturity.***

- ***A Landscape Plan is to be prepared and implemented by an appropriately qualified bush regenerator and include details on:***
  - ***a. seed collection – the location of all native seed sources should be identified***
  - ***b. the type, species, size, quantity, and location of replacement trees***
  - ***c. the species, quantity and location of shrubs and groundcover plantings***
  - ***d. the plan demonstrates replacement trees plantings will deliver a net increase in trees for trees that are not covered by a biodiversity offset strategy***
  - ***e. the native vegetation community (or communities) that once occurred in this area are to be planted and the plan demonstrates that the plant species consist of local provenance***
  - ***f. a list of local provenance species to be used***
  - ***g. the quantity and location of plantings***
  - ***h. the pot size of the trees to be planted***
  - ***i. the area/space required to allow the planted trees to grow to maturity***
  - ***j. 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.***

Flooding

The proposed development site is impacted by the Hawkesbury Nepean regional flood, though it is not impacted by the 1% AEP event. The existing site is expected to be impacted by the 1% AEP localised floods. The proposed development site will be isolated during the HN PMF regional event.

The proposal will accommodate up to 325 students and up to 32 employees consisting of farm assistants, administration staff and teachers and up to eleven (11) itinerant staff members. It will also include short-term on-site accommodation facilities for up to 62 visiting students and teaching professionals from regional and rural NSW.

Therefore, the proposal should address the evacuation capacity of the site and whether it may impact on the evacuation of other sub-sectors of the HNV. The proponent should consult the Hawkesbury Nepean Floodplain Risk Management Directorate in this regard.

End of Submission