



Office of
Environment
& Heritage

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SSD8707

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NSW Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Andy Nixey

Exhibition of Concept Redevelopment Application for Ivanhoe Estate, Macquarie Park - SSD 8707

Dear Mr Nixey,

I refer to your letter dated 9 April 2018, requesting input from the Office of Environment and Heritage (OEH) on the exhibition of the concept application for the redevelopment of Ivanhoe Estate - SSD 8707.

Please find attached OEH comments regarding biodiversity, Aboriginal cultural heritage and flooding in Attachment 1.

Please note that a separate response may be provided on heritage matters by the Heritage Division of OEH as delegate of the Heritage Council of NSW. Should you have any queries regarding this matter, please contact Svetlana Kotevska, Senior Conservation Planning Officer on 8837 6040 or at Svetlana.kotevska@environment.nsw.gov.au.

Yours sincerely

S. Harrison 15/05/18

SUSAN HARRISON
Senior Team Leader Planning
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Attachment 1 – Office of Environment and Heritage (OEH) comments - Ivanhoe Estate Concept Redevelopment SSD 8707

Biodiversity

Summary:

It is noted this application is concept only and does not seek approval for physical works, with approvals for physical work being sought as part of future, separate applications. This application however, is accompanied by a biodiversity assessment report (BAR) which requires an assessment of the direct and indirect impacts of the proposed development.

OEH recommends the following in relation to the biodiversity assessment:

- retention of the existing threatened ecological community and adjoining vegetation community along Epping Road, which would require modifying the proposed construction footprint and development layout and
- that the deficiencies in the BAR as described in Appendix 1 are addressed.

It is also noted that the BioBanking Credit Calculator was not submitted with this application, so OEH has not been able to review the data used to determine the offset requirements.

Detailed comments:

1. Biodiversity Assessment

- The site area is 8.2ha in total and comprises 1.64ha of Sydney Turpentine Ironbark Forest (STIF) on site which is an endangered ecological community (EEC) under the *Biodiversity Conservation Act 2016* (BC Act) and also a critically endangered ecological community under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- Page 21 of the BAR mentions that a habitat assessment was carried out, but no detail is provided on this assessment.
- The BAR mentions in a number of sections that there are seven hollow-bearing trees on site but this information is limited and it is scattered throughout the document. The BAR states that five of the trees are to be impacted by the proposed development, and that they are >300 mm in diameter. Such hollows may be suitable habitat for the Powerful Owl (*Ninox strenua*), a species which has been recorded a number of times in the vicinity of the site. However, there is no mention in the BAR that this species was a candidate species and there is no discussion of potential impacts.
- Section 5.3.3. of the BAR states that no threatened plant species were observed on the development site. However, *Melaleuca deanei* is listed in Appendix A (Plot and transect data) as occurring in plot 5, and Figures 4 and 5 identify this plot as occurring within the construction footprint. This species is listed as vulnerable under the BC Act and the EPBC Act.
- Table 11 of the BAR states that for *Acacia pubescens*, there is no habitat within the development site and the species requires no further assessment because “there are no gravelly soils or ironstone within the development site”. However, as the BAR points out, this species can occur on a range of substrates including the intergrade between shales and sandstones. The site contains shale and sandstone substrates, and there are several BioNet records for this species nearby. Therefore, more justification should be provided for discounting the likelihood of this species occurring on site.
- Table 11 of the BAR states that for *Syzygium paniculatum* (Magenta Lilly Pilly), there is no habitat within the development site and the species requires no further assessment because “there are no grey soils over sandstone, and there are no remnant stands of littoral rainforest”. However, this species is known to occur in the Cumberland and Pittwater IBRA subregions, and is known to be associated with Turpentine - Grey Ironbark open forest on shale in the lower Blue Mountains, Sydney Basin Bioregion (plant community type (PCT) ME041), with all of these elements being represented at the site. The BioNet Atlas also contains a record for this species at an adjacent site along Herring Road. As such, the site likely contains habitat for this species.

- Appendix A has incorrectly labelled a number of species: *Glochidion ferdinandi* (Cheese Tree) is identified as exotic (but it is native), *Corymbia citriodora* (Lemon-scented Gum) and *Grevillea robusta* (Silky Oak) are indicated as being native (but they are naturalised), and as stated above, *Melaleuca deanei* is not identified as a threatened species.
- The BAR identifies the development site as being wholly within the Cumberland IBRA sub-region, however it is partly in Cumberland and partly in Pittwater IBRA sub-regions. Similarly, the BAR states the site is wholly within the Pennant Hills Ridges Mitchell Landscape, but the site is partly within Pennant Hills Ridges and partly within Port Jackson Basin. Acknowledgement of this should be included in the BAR, as well as justification for selection of the relevant IBRA sub-region and Mitchell landscape.
- No roads or drainage lines, including Shrimptons Creek, are identified on any of the figures.

2. Impact assessment

- The concept development proposal involves the removal of 311 trees, including hollow bearing trees along Epping Road and the removal of 0.46ha of moderate to good condition STIF is to be removed. A total of 229 trees are to be retained. The 2.93ha of unavoidable impacts of the project and Biobanking Credit Calculation for this proposal generates the need for 32 ecosystem credits. It is proposed that offsets are to be retired in a staged manner- approximately 10 stages.
- The extent of EEC to be removed needs to be clarified, as the consultant's report states the project will remove approximately 0.46ha of the EEC but the EIS says 0.34ha.
- Principle 1 of the NSW Biodiversity Offsets Policy for Major Projects states that *"Before offsets are considered, impacts must first be avoided and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impacts."* It is considered that the proposed development fails to avoid direct impacts on threatened ecological communities. It is not considered that adequate planning/siting of the proposal has been carried out as per the Framework for Biodiversity Assessment (FBA). Specifically, the FBA requires proponents to identify and avoid direct impacts to threatened ecological communities (TECs). An alternative footprint design could avoid impacting on the EEC particularly the STIF EEC primarily located along the perimeter of the sites southern boundary. There is opportunity to reduce the building footprint than currently shown in Figure 1 below and this could be achieved with higher building forms, with increased buffers and setbacks to this EEC or relocation of development.

Further, the consultant's Eco Logical Australia *Biodiversity Assessment Report and Offset Strategy* dated February 2018, Section 6.1.3 Table 14 states as follows - *the Major Project should be located in areas where the native vegetation or threatened species habitat is in the poorest condition (i.e. areas that have a lower site value score) or **which avoid an EEC or CEEC...**minimise the amount of clearing or habitat loss – the Major Project (and associated construction infrastructure) should be located in areas that do not have native vegetation, or in areas that require the least amount of vegetation to be cleared (i.e. the **development footprint is minimised**, and/or in areas where other impacts to biodiversity will be the lowest.*

OEH suggests the development footprint could be reduced and higher building heights could be proposed to preserve more STIF. It is noted that a 65m height control (equivalent to 21 storeys based on 3m floor to ceiling heights) is proposed along the southern boundary to Epping Road, refer to Figure 2 below. The consultant's report does not assess what the impact is on the vegetation remaining from overshadowing and limited light especially vegetation along Epping Road where a 65m height is proposed and where good quality STIF is located. The proponent should calculate the reduction in the conservation value of the remaining patch of vegetation not just the areas that are removed.

- The BAR appears to understate the degree of proposed impact on site. Table 12 of the BAR states that "Impacts to EECs have been minimised by locating the proposed development on land that is currently developed." However, Table 4 shows more than half of the EEC, which corresponds to the ME041 PCT, will be removed under the current proposal. Table 12 also states "There are limited hollow-bearing trees" but as previously mentioned, seven large hollows have

been identified on-site, with five of these being earmarked for removal. The number of hollow-bearing trees that are present on site is significant, particularly given its small size and residential setting. Also, Table 12 states “The vegetation within the development site ... will not be used as breeding or refuge habitat for threatened species” but there is no recognition that the hollows may provide breeding or refuge habitat for threatened species. Section 4.4 of the BAR states that ‘there are no remnant soil characteristics within the current development’, which does not appear to be correct given the number of native species present. In addition, a threatened species (*Melaleuca deanei*) has been recorded in the surveys, as mentioned above.

- OEH also considers more effort should be made to retain the connectivity of this vegetation along the Epping Road frontage, by removing the proposed access to the site off Epping Road which will sever this connectivity.
- The proposal introduces the concept of a hierarchy of public spaces such as Forest to neighbourhood and the public domain plan shows areas earmarked as Forest thresholds with stepped terraces (identified as item 14 on the public domain plan Figure 3 below). The proposal should aim to minimise landform alteration in the forest areas and preserve existing trees and it is unclear whether the stepped terraces are proposed or are a natural element of the Forest landscape area.
- The consultant’s report page 11 states “At the time of survey, the exact location of the development site was not known. As a result, plots were carried out within a contiguous patch of vegetation approximate to the development site location. As such, **the location of the plots is outside of the development site**, but given the lack of environmental variation within the vegetation patch, the approach is considered suitable for the purposes of the assessment.” The survey needs to be updated to ensure the site is adequately surveyed.
- OEH supports the goal that Ivanhoe Estate will target a 6 Star Green Star Communities rating and 5 Star Green Star v1.1 for all buildings and will incorporate a range of environmental and sustainability measures, including photovoltaic solar power and water recycling plants with the aim of being carbon neutral in operation.
- The proponent may need to refer this concept proposal to the Commonwealth Government as a matter of national environmental significance given the Sydney Turpentine Ironbark Forest (STIF) on site is a CEEC under the EPBC Act.
- A Biodiversity Management Plan (BMP), a weed management plan, a Construction Environment Management Plan (CEMP) and a Vegetation Management Plan to provide for management of retained areas of the EEC and this needs to be conditioned on any forthcoming development approval.
- A monitoring program is to be conditioned to measure the impacts of the project and must include baseline data capture to measure any effects of the project over time on the remaining STIF.
- Nest boxes are required to be conditioned to be installed to minimise impacts to arboreal mammals. It is recommended to replace all removed hollows with artificial nest boxes at a ratio of 1:4 (removed:replaced). A total of five (5) hollow bearing trees will be impacted. Nest boxes are to be installed within retained vegetation in Shrimptons Creek.

Shrimpton’s Creek Riparian Corridor

- Section 1.2.2 of the BAR mentions that the Masterplan includes a proposal to regenerate RE1 zoned land along Shrimptons Creek, and that the Shrimptons Creek corridor will be enhanced to provide a recreational and environmental green spine. OEH supports this action and recommends that the construction footprint is amended to provide a buffer to Shrimptons Creek and so avoid impacts to the existing vegetation along the creek, to increase the likelihood that the environmental outcomes that the Masterplan seeks to achieve, can be realised.

- A shared path for cyclists and pedestrians within the 20m riparian corridor in the outer riparian zone. Details should be provided of how any impacts from runoff and other pollutants as well as active recreation will not adversely affect water quality, bank stability and conflict with the goal of rehabilitating Shrimptons Creek in the long term.
- It is recommended that the existing adjoining E2 zone be extended into the site within the riparian corridor as shown in Figure 4 below to protect both the adjoining corridor and the rehabilitated corridor in the long-term as this zone will ensure stronger protection.
- Condition the installation of sediment barriers, sediment ponds and stormwater management systems on any forthcoming development approval in accordance with Table 16 of the consultant's Eco Logical Australia's *Biodiversity Assessment Report and Offset Strategy* report dated February 2018.

3. Biodiversity Offset Strategy (BOS)

- Section 11.1.1.1 and Appendix 7 of the FBA requires that a BOS be prepared as part of the BAR. It is noted that none of the minimum requirements for the BOS, as required in the FBA, have been included in the BAR. OEH recommends the BAR is amended to include a BOS, in accordance with the NSW Biodiversity Offsets Policy for Major Projects and the FBA.

4. Long term management

- OEH recommends that vegetation to be retained on site is managed in the long term through the preparation and implementation of a Vegetation Management Plan.
- OEH also recommends that any regeneration or management of vegetation along Shrimptons Creek uses local provenance plants and the species selected are appropriate for the TECs and PCTs present.



Figure 1 – Concept Development footprint and impact on STIF

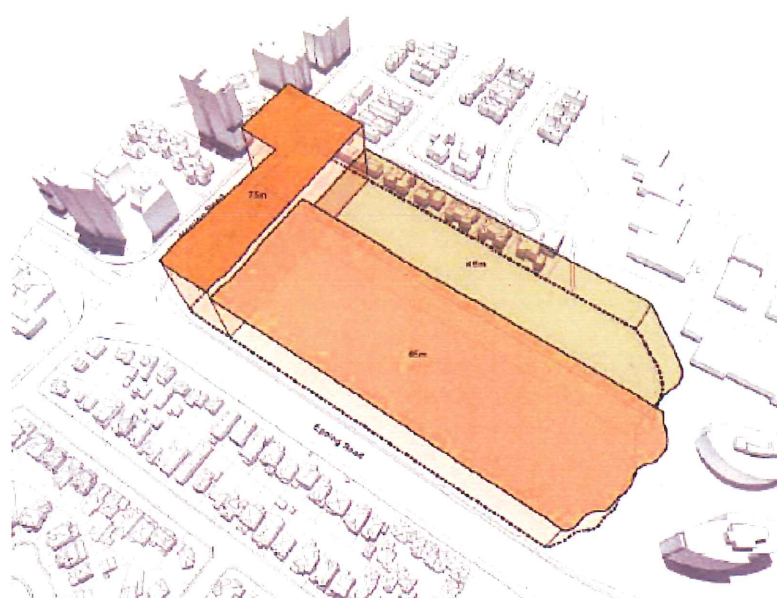


Figure 21 – Building Height Plan

Source: Bates Smart

Figure 2 – Proposed Concept Development Height

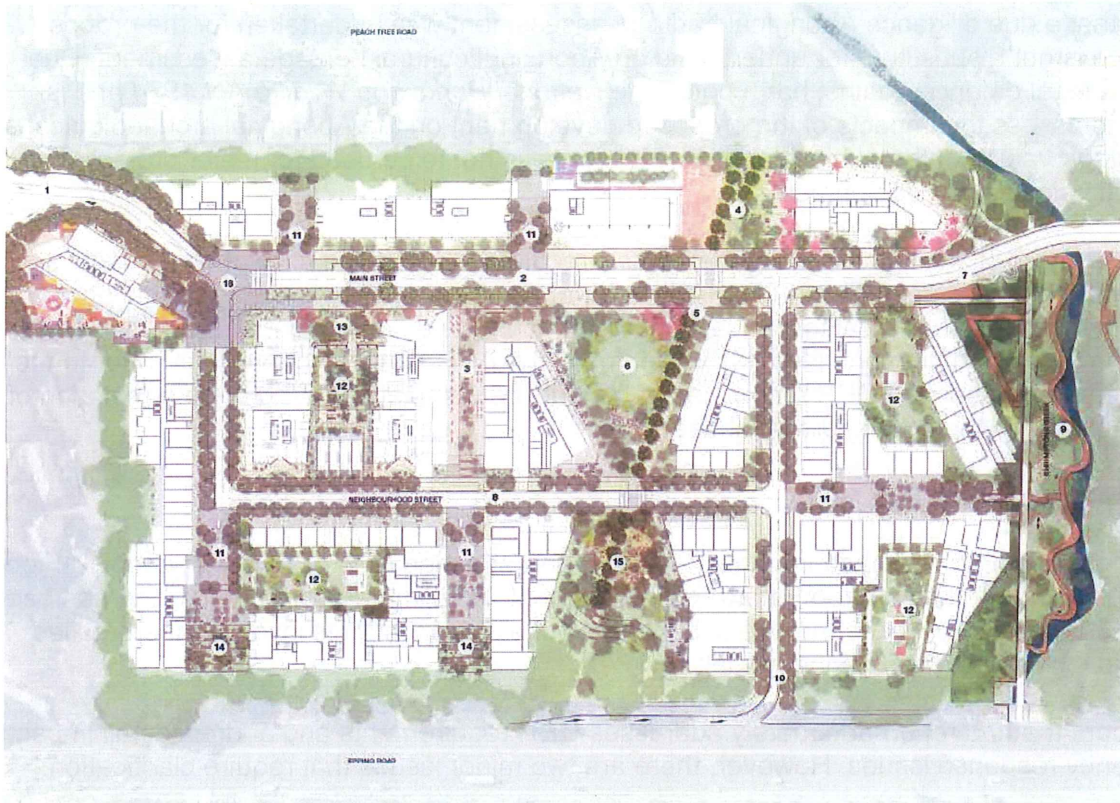


Figure 3 Public Domain Plan

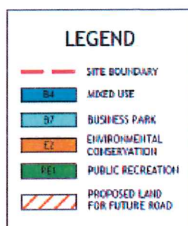
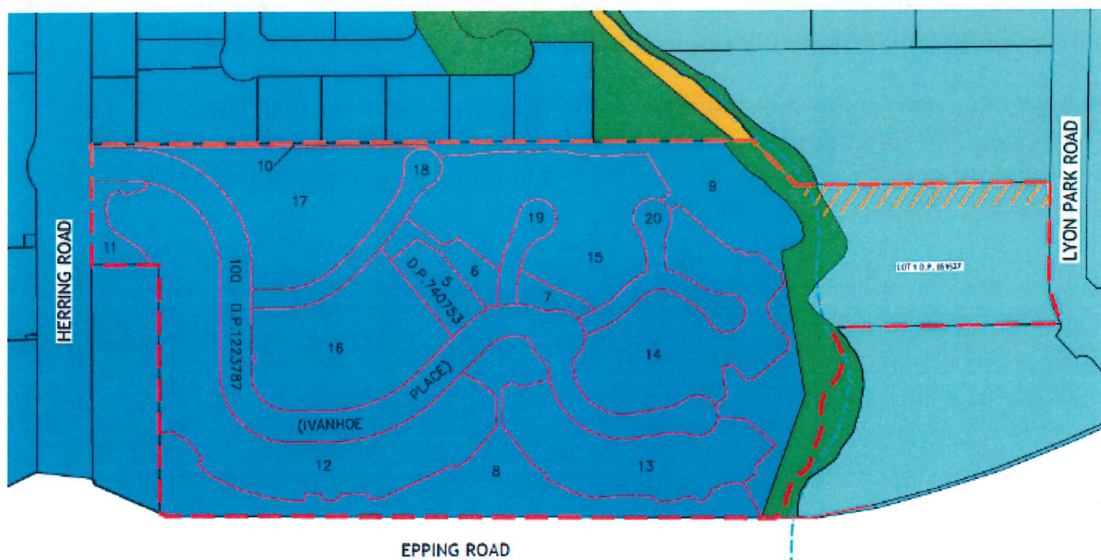


Figure 7- Lot boundaries and zoning
Source: ADW Johnson

Figure 4 Existing Zones

Aboriginal Cultural Heritage

OEH notes that a due diligence Aboriginal heritage assessment was undertaken for the proposal. Due diligence is not a substitute for undertaking an Aboriginal cultural heritage assessment. Due diligence is a legal defence against harm under the *National Parks and Wildlife Act 1974* and is inadequate to assess the impacts of the proposed development on the Aboriginal archaeological and cultural heritage values of the subject land. Due diligence is not to be used for major projects, including state significant developments.

Further assessment of Aboriginal cultural heritage is recommended in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR), with formal Aboriginal community consultation and a staged program of archaeological test excavations, to inform the development and satisfy the project SEARs. From the information provided it is unclear why the ACHAR was not prepared prior to the exhibition of the proposal and OEH recommends that this be completed ahead of determination of the application, not in the post-approval phase.

Floodplain Management

The following comments are made in relation to the report attached to the EIS at Appendix I - Flood Impact Assessment for the Ivanhoe Estate Redevelopment. No climate change modelling has been undertaken, however OEH notes that the subsequent development stages involving the detailed design would include climate change modelling.

OEH considers that the report adequately addresses OEH requirements and addresses all impacts and emergency response issues. However, there are two minor issues that require clarification:

- In Table 5-1, the flood level results look to be out of order. It looks like an error has been made as the 20y levels are 1, 2, 3 etc and in the proposed development scenario 20y, 100y and PMF levels do not make sense. 20y levels are more than 2m higher than the 100y and PMF levels. It looks like the columns have been moved across by one. Please clarify this matter.
- In Table 5-1 and 5-2, assuming that the error in the columns is clarified for Table 5-1, the locations that have NFI (No flooding indicated) are not consistent between the tables. For example, in the current PMF scenario at location 5 a flood level is indicated in Table 5-1 but in Table 5-2 it has NFI. Please clarify this matter.

(END OF SUBMISSION)