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Subject: Webform submission from: Western Sydney Aerotropolis Draft Precinct Plans
Date: Friday, 12 March 2021 1:54:52 PM
Attachments: [elford-submission-precinct-plan-final-complete.pdf](#)

Submitted on Fri, 12/03/2021 - 13:52

Submitted by: Anonymous

Submitted values are:

Submission Type

I am submitting on behalf of my organisation

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I would like my submission to remain confidential

No

Info

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Suburb/Town & Postcode

Sydney

Submission file

[elford-submission-precinct-plan-final-complete.pdf](#)

Submission

Submission made on behalf of the Elford Group with regard to the Aerotropolis Core Draft Precinct Plan.

I agree to the above statement

Yes

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11 March 2021

Western Sydney Planning Partnership
PO Box 257
Parramatta NSW 2124

To Whom it May Concern

Submission: Western Sydney Aerotropolis Precinct Plan

This submission has been prepared on behalf of the Elford Group with respect to the property at 320 Badgerys Creek Road, Badgerys Creek (**the site**), and in relation to the implication of the Draft Aerotropolis Precinct Plan for the Aerotropolis Core (**draft Precinct Plan**) and associated technical studies.

In February 2020, Elford Group made a submission during exhibition of the now-finalised *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (Aerotropolis SEPP)* in which it noted general support for the NSW Government's proposed zoning and planning framework for the Aerotropolis. In particular, the submission supported the ENT Enterprise zoning for the site, as well as the intention to limit any development on the site to below the Obstacle Limitation Surface (OLS), resulting in an approximately 59.5m maximum height limit for the site.

The Western Sydney Planning Partnership (WSPP) and the NSW Department of Planning, Industry and Environment (DPIE) is to be congratulated in terms of the volume of information placed on public exhibition and the short time frame in which the relevant studies have been prepared and coordinated.

However, it would appear that very specific site controls have been derived from broad scale assessments undertaken (by necessity) across many hundreds of hectares. The conclusions drawn from the numerous studies may be considered appropriate as a "framework" or "concept plan" permitting further detailed "ground-truthing" at the individual site level; but their use as prescriptive controls (that cannot be varied without significant additional process and expense) is premature and counter-productive to the objectives of the Aerotropolis Growth Area in general and the ENT zoning in particular.

Significant concern is raised in relation to the proposed controls in the Draft Precinct Plan, which apply a largely inflexible set of planning controls to the site, that do not have regard to the actual 'on-the-ground' constraints and opportunities present.



In particular, concern is raised in relation to identification of a large portion of the site as accommodating a broad expanse of open space, a “view corridor”, and “cultural qualities”, resulting in limitation of the developable footprint to the south-eastern portion of the site, and a lack of rigorous, evidence-based, site-specific analysis to support the proposed land use framework.

Furthermore, the mapping and intent of the controls in the Draft Precinct Plan is unclear, and the basis for applying a relatively low 24 metre height limit to an employment zone has not been properly articulated or justified.

Significant changes and re-consideration of the Draft Precinct Plan is recommended prior to finalisation of the Plans. These include:

- » incorporation of a process that permits more detailed site-level studies to reach evidence-based solutions and promote an alternative pattern of development on the ground; and
- » Further consultation with impacted stakeholders that clearly identifies the priorities of NSW Government and explains the processes required for the delivery of enterprise development .

It is essential that the detailed land use and development controls for the Aerotropolis Growth Area are evidence-based at the appropriate scale and reflect the intent for the area to ensure that the significant Government investment in this area produces the envisaged economic outcomes, employment growth and strategic objectives.

Site and Surrounds

The site is located at 320 Badgerys Creek Road, Badgerys Creek. It is roughly 45km south west from Sydney CBD, 27km south west from Parramatta CBD and 18km south east of Penrith CBD.

It is legally described as Lot 1 in DP 1188956 (previously Lots 1, 2 and 3 in DP576709) and is approximately 40ha in area.

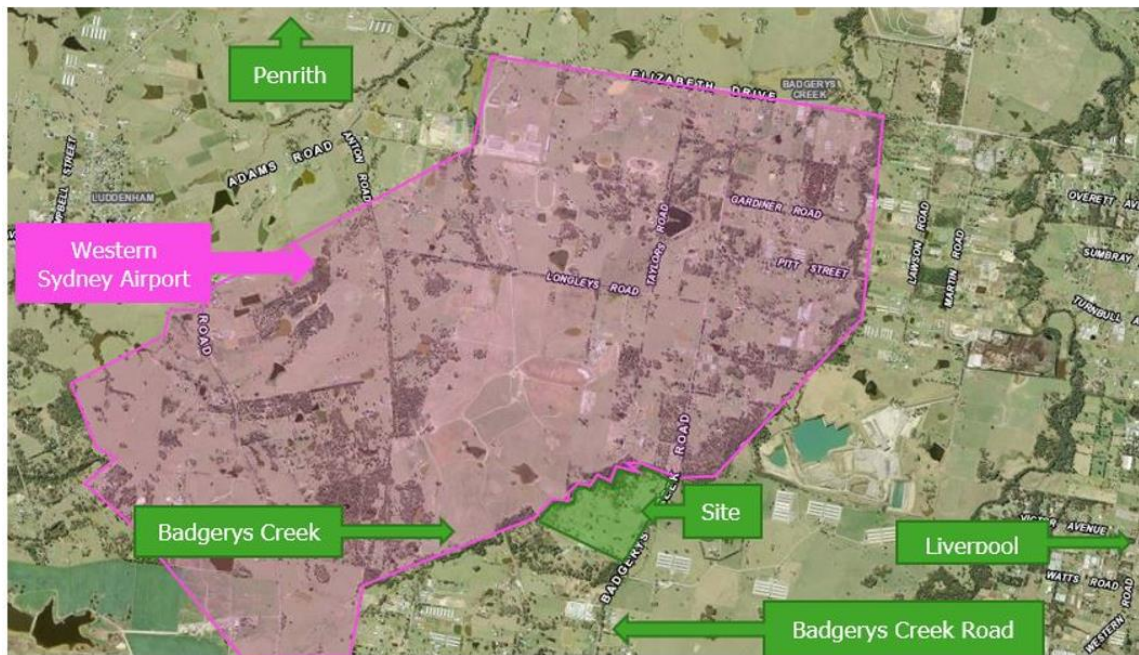
The site is currently accessed via Badgerys Creek Road, a local road, and abuts Badgerys Creek on its north-western boundary. Construction of the new M12 to the north of the site beyond Elizabeth Drive will provide a new link into Badgerys Creek Road providing greater vehicular connection to the site from Greater Sydney.

The site is primarily zoned ENT Enterprise under the Aerotropolis SEPP (with a small portion of the site zoned ENZ Environment and Recreation directly along the creek) and sits within the Aerotropolis Core Precinct.

A site location and context plan is provided at **Figures 1** and **2** below.



Figure 1 Context



Source: Six maps

Figure 2 Site



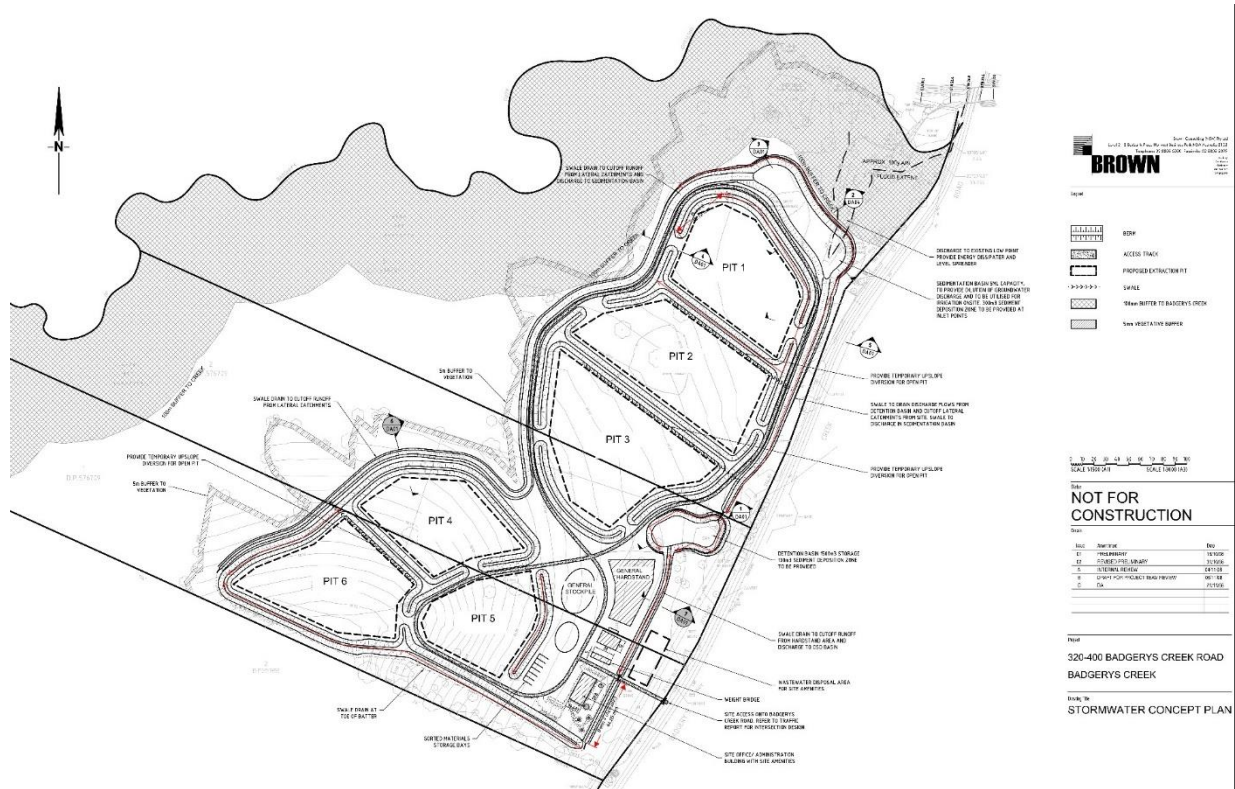
Source: Nearmap



Existing Development and Approvals

The site benefits from an existing development consent (DA693/2009) which was issued by Liverpool City Council in September 2009 for operation of the site as a shale quarry and materials resource recovery facility for a period of 25 years. The approved design is shown in **Figure 3** below.

Figure 3 Approved development



Statutory Context and Mapping

Statutory Context

The Aerotropolis SEPP provides zoning controls for the Aerotropolis Growth Area Initial Precincts (**Initial Precincts**). It is understood that the Draft Precinct Plans are intended to provide the statutory development control framework for land within the Initial Precincts, with more detailed guidance to be provided in development controls plans (**DCPs**).

However, the Draft Aerotropolis Precinct Plans currently on exhibition are structured very differently to typical Precinct Plans - like those included as appendices in *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (Growth Centres SEPP) for example. Precinct Plans under the Growth Centres SEPP are structured similar to Standard LEP Instruments; they incorporate principal development standards such as height, density,



allotment size, as well as a clause which allows for variation to the Precinct Plan development standards subject to satisfaction of relevant objectives and principles.

In contrast, the Draft Aerotropolis Precinct Plans do not provide specific development standards, other than height controls, and limited floor space ratios (FSRs) for centre locations. Rather, they are structured more like masterplans or DCPs, relying on diagrams and performance criteria to guide development within the Precincts.

The ambiguity of the Aerotropolis Precinct Plans is even more problematic as they are given statutory weight under Clause 41 of the Aerotropolis SEPP which provides that the consent authority must not grant consent to development on land to which a Precinct Plan applies unless it is satisfied that the development is consistent with a Precinct Plan.

Furthermore, Clause 6(2) of the Aerotropolis SEPP excludes the application of LEPs to land covered by the SEPP. This means that the provisions of Clause 4.6 under the Standard LEP Instrument - which allows reasonable variations to development standards subject to satisfaction of a number of principles and objectives – does not apply to land covered by the Aerotropolis SEPP.

The SEPP itself does not include a provision which allows for a reasonable variation of development standards having regard to the particular circumstances of a site or development. The SEPP states that if a proposed development is not consistent with the Precinct Plan, an amendment to the Precinct Plan may be required via the planning proposal process.

This is problematic from both a statutory planning perspective and a development-delivery perspective. The provisions relating to planning proposals under the *Environmental Planning and Assessment Act 1979* (the Act) do not extend to 'Precinct Plans' and are separate from the provisions relating to SEPPs. It is unclear how amendments to the Precinct Plans will be managed as planning proposals which relate to LEP amendments only.

The SEPP Amendment process that would appear necessary in this instance can be very lengthy and unnecessary where reasonable departures from relevant development standards may otherwise be justified. This contradicts the intention of allowing reasonable flexibility within the planning system and the objective of wanting "evidence-based" outcomes.

We recommend the Precinct Plan be amended to incorporate flexibility in the application of development controls like other similar environmental planning instruments.

Mapping

The uncertainty created by the format of the Draft Aerotropolis Precinct Plans is exacerbated by the limited site-level detailed information provided for land covered by the Draft Precinct Plans for the Initial Precincts.

This results in broad planning controls being applied across large areas without due consideration being given to the specific attributes of the individual parcels of land to which the controls apply. For example, the vast majority of the site at 320 Badgerys Creek Road is zoned ENT Enterprise (see **Figure 4**), apart from a small portion (circa 5% of the site area) along Badgerys Creek which is zoned ENZ Environment and Recreation.



Figure 4 Aerotropolis SEPP zoning map extract

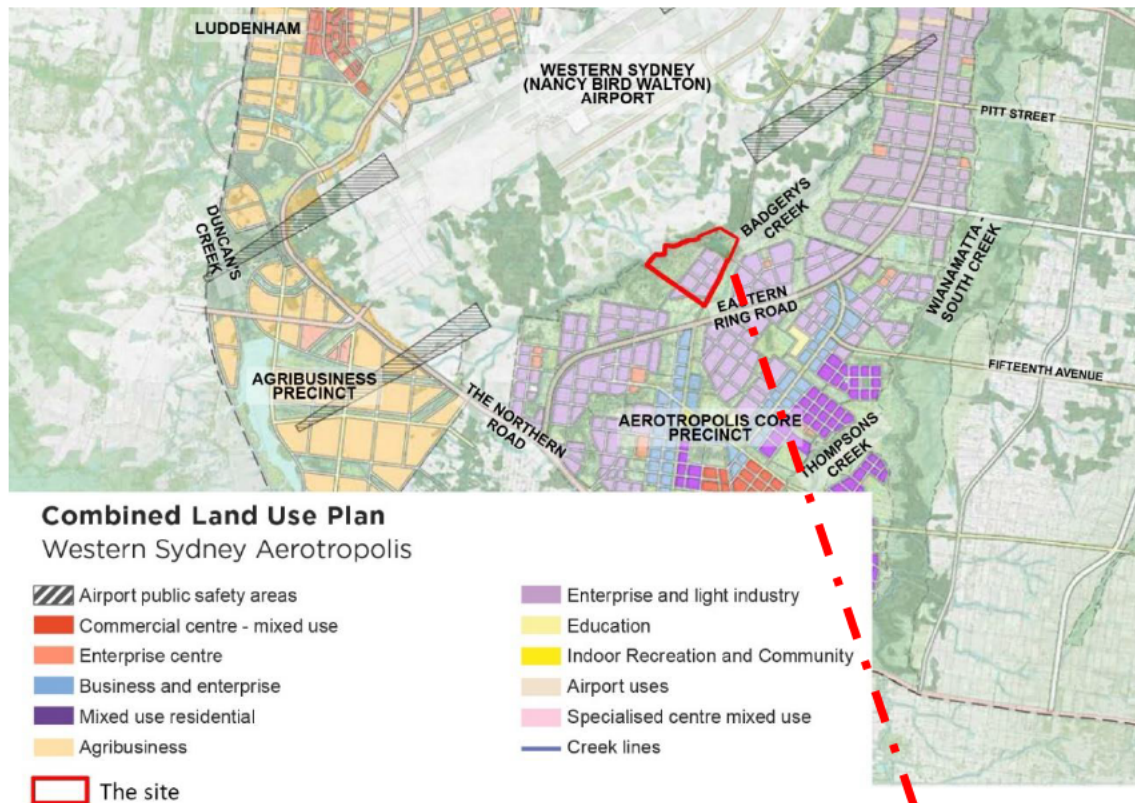


Source: Cumberland Ecology

However, in the draft Precinct Plan 'Combined Land Use Plan' only the south-eastern portion of the site is identified 'Enterprise and light industry'. The north-western portion of the site is identified as 'riparian/linear parklands' (see **Figure 5**). This limits the development potential of the site to less than half of the land actually zoned ENT Enterprise.



Figure 5 Draft Precinct Plan Combined Land Use Plan extract



Source: Aerotropolis Precinct Plan (site boundary not exact)



The confusion created by the inconsistency between the Aerotropolis SEPP zoning map and the Draft Precinct Plan maps is exacerbated by the lack of detail and resolution provided within the Draft Precinct Plan maps. GIS maps for the Draft Precinct Plans have not been publicly exhibited for all Initial Precincts. This makes it challenging to determine exact property boundaries, and to delineate between parts of the site identified as 'enterprise and light industry' and those parts identified as 'open space' or 'parkland' etc.



According to the exhibition document, the Aerotropolis Core Precinct Plan fulfils the requirements of Part 7 Division 1 Clause 40 the Aerotropolis SEPP with the Aerotropolis Urban Design and Landscape Report forming **the basis** of the Precinct Plan.

If the Draft Precinct Plans are intended to provide statutory land use controls for development within the Aerotropolis, they should be required to meet the rigorous standards and technical requirements for spatial datasets and maps established by DPIE in 2015 to coincide with the commencement of the NSW Planning Portal and database.

Furthermore, the implications of the different designations between 'open space' areas and 'enterprise and light industry' areas shown in the Land Use Plan is unclear. It is expected that the zoning map in the SEPP which applies and ENT Enterprise zoning across the vast majority of the site would override the Precinct Plan 'open space' area designation – however this appears to be contradicted by clause 41 of the Aerotropolis SEPP.

This is even more problematic as the basis for determining what would appear to be a relatively arbitrary delineation between developable land and open space is not clearly articulated and is based on broad precinct-level studies instead of detailed site-specific studies and 'ground truthing'. Given the significant implications the Draft Precinct Plan mapping and controls will have on the future delivery of development of the Aerotropolis Growth Area, an alternative approach needs to be taken in finalising the Precinct Plans which allows for the setting of broad development parameters with further detail provided in subsequent development controls plans as site-specified detail emerges.



Figure 6 Draft Precinct Plan Open Space Network map extract



We recommend the Precinct Plan be amended to:

- » Remove any reference to an 'open space' overlay across the site
- » Provide a more flexible approach to identification of appropriate building footprints across the site
- » Provide detailed GIS mapping to assist stakeholders in confirming the key controls proposed for sites.

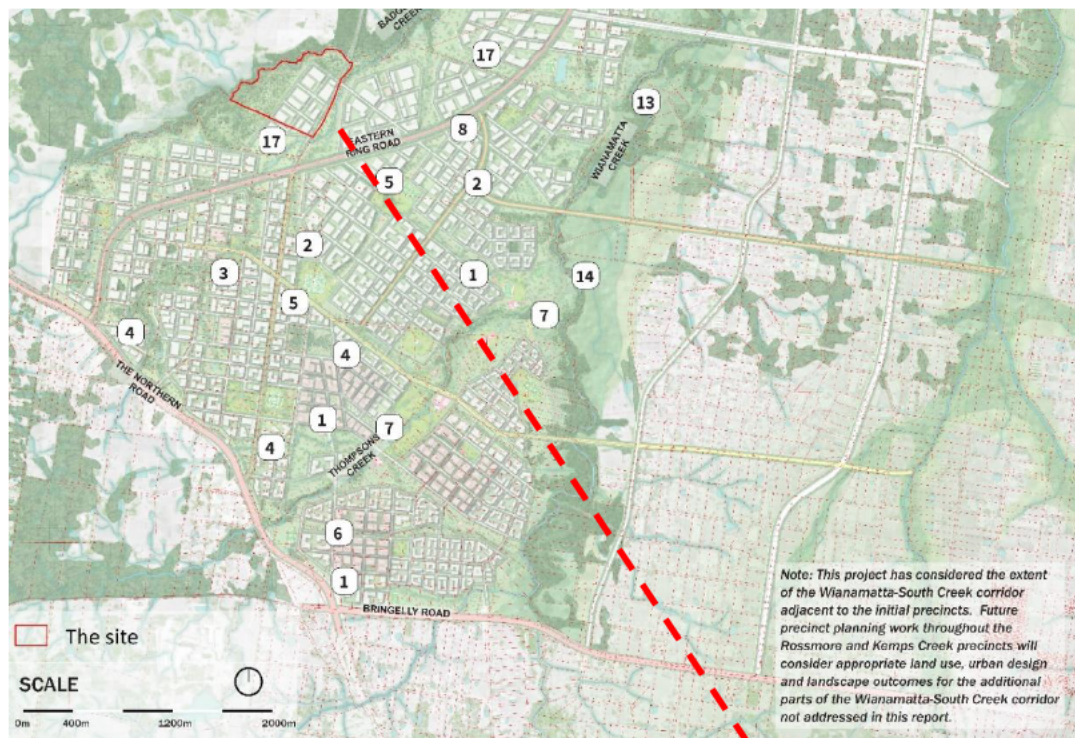


Structure Plan and Associated Development Controls

Building Footprint

The Draft Layout and Structure Plan for the Aerotropolis Core Precinct identifies the site as '17. Existing quarries transition over time to employment land uses. Vegetation is retained where it aligns with flood and biodiversity objectives' (see **Figure 7** below).

Figure 7 Draft Layout and Structure plan extract



Source: Aerotropolis Precinct Plan (site boundary not exact)





Whilst no general objection is raised to the description of the site under the Structure Plan, the planning controls for the site do not reflect the intent for the site as articulated in the Structure Plan. Notably, existing vegetation is *only* to be retained where it aligns with flood and biodiversity objectives.

The site is **not** affected by any flood mapping in the SEPP or Precinct Planning documents. Furthermore, Cumberland Ecology has prepared an Ecological Report (refer **Appendix A**) to verify what biodiversity values are actually present on the site. As confirmed in the Ecological Report, the majority of biodiversity values on the site are limited to the north-west portion of the site along Badgerys Creek which is zoned ENZ Environment and Recreation under the SEPP (see **Figure 9**). This generally corresponds with the portion of the site fronting the creek which was previously identified as Environmentally Sensitive Land under the Liverpool LEP controls.

Whilst a 20 metre-wide riparian planting zone would typically be required to be provided either side of the Creek in accordance with the *Water Management Act 2000* (Water Management Act), the Draft Precinct Plan Open Space Network map applies an approximately 100 metre-wide 'riparian parkland' over the north-western part of the site effectively sterilising the development potential over this part of the site – far beyond that which would ordinarily be required under the Water Management Act. The basis for this is not clearly articulated or justified.

We recommend the Precinct Plan be amended to:

- » Remove any reference to an 'open space' overlay across the site
- » Provide a more flexible approach to identification of appropriate building footprints across the site

Height Limit

A height limit of 24 metres (see **Figure 8**) is applied to the proposed development footprint identified on the site which is less than half the maximum height that would be allowed under the OLS height control. The basis for applying such a low height control to a site zoned for what is ostensibly industrial and commercial purposes is not clearly explained and is inconsistent with many of the objectives for the Enterprise zone including the following:

- » To encourage employment and businesses related to professional services, high technology, aviation, logistics, food production and processing, health, education and creative industries.
- » To provide a range of employment uses (including aerospace and defence industries) that are compatible with future technology and work arrangements.
- » To provide facilities and services to meet the needs of businesses and workers.

Many industrial activities, warehouses, logistic centres, office complexes, employment and high technology uses require building heights well in excess of the proposed 24 metres. This is increasingly the case where automated processes are able to be sited in buildings where height is not the defining limit.

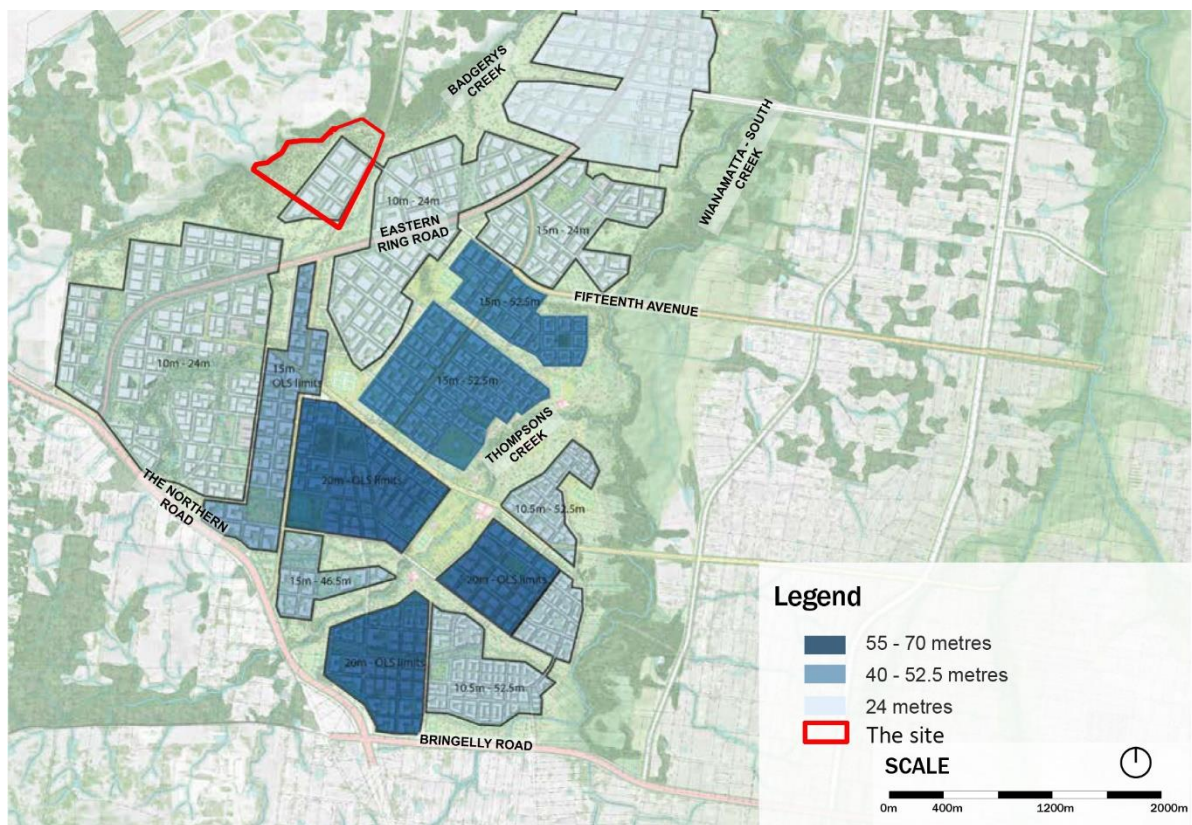


Providing a greater height limit for the site will incorporate flexibility into the planning system to accommodate future technologies and employment-generating development which may not be envisaged at present. Given that the planning for the new airport will be so significant in Sydney's growth over the next few decades and its ability to respond to rapidly-changing technologies, it is essential that the planning system provide as much flexibility as possible. This is particularly the case for the height controls which would not result in any discernible impacts within such a wide extent of ENT Enterprise zoned land, but would support tangible benefits, if increased.

Increasing the maximum height to 59.5 metres (below the OLS) would have no discernible environmental or amenity impacts whilst allowing flexibility to deliver employment-generating uses consistent with the zone objectives.

We recommend a new height limit of 59.5m be applied to the site and higher development be permitted more broadly across relevant parts of the Precinct and in line with the OLS limitations (with some exceptions and lower building heights in locations where there could be an impact on proposed new population centres).

Figure 8 Precinct Plan height map extract



Source: Aerotropolis Precinct Plan (site boundary not exact)



Maximum allotment size

The rationale for applying a maximum block size of 350 metres x 350 metres in the ENT Enterprise zone is not clearly articulated or justified. It is considered unnecessary to apply a maximum subdivision size control, particularly as employment uses typically require large floorplates.

We recommend there be no maximum block size limit and the control be deleted from the Precinct plan or made clear it is provided as advice only.

Employment Densities

The Draft Precinct Plan also includes targeted employment densities per precinct which may be difficult to manage and track. The Draft Precinct Plan includes guidelines for jobs per hectare based on different types of uses including the following relevant land uses:

- » Urban Services: 25 – 35 jobs/ hectare
- » Office Park: 130 – 250 jobs/ hectare
- » Campus Style Business Park: 75 – 130 jobs/ hectare
- » General Industrial: 25 – 30 jobs/ hectare
- » Large Logistics: 18 – 25 jobs/ hectare
- » Education/ Community: 30 – 50 jobs/ hectare

Like other provisions in the Draft Precinct Plan, it is unclear whether these 'guidelines' are intended to be statutory controls with which all development will be required to comply, or merely advice on current levels of job density. Furthermore, it is unclear how potential jobs will be calculated when lodging development applications, and if the Precinct Plans intend to include any flexibility to respond to changes in technology and resulting impacts on jobs for different types of land uses.

We recommend the Precinct Plan be amended to make it clear the employment guidelines are provided as advice only.

Environmental Constraints

The proposed controls in the Draft Precinct Plan, particularly those limiting the building footprint to the south-eastern part of the site and requiring the south-western section to be provided as open space, appear to be based on perceived and arbitrary environmental constraints that impact the site. These constraints do not reflect the actual nature or attributes of the site.

Cumberland Ecology undertook a desktop assessment of exhibited documentation and supporting technical studies, as well as a site inspection to verify the ecological values present on the site (refer **Appendix A**). The finding of the ecological assessment – specifically whether species on the site meet the threshold for listing under the *NSW Biodiversity Conservation Act 2016* (BC Act) and the *Commonwealth Environment Protection Biodiversity Conservation Act 1999* (EPBC Act) are summarised below and in **Figure 8**.



Table 1 Vegetation within the subject site

Species	Threshold for listing under the BC Act	Threshold for listing under the EPBC Act
Cumberland Plain Woodland	Critically Endangered Ecological Community	Does not conform
River Flat Eucalypt Forest	Endangered Ecological Community	Some patches may conform
Swamp Oak Floodplain Forest	Endangered Ecological Community	Does not conform

Figure 9 Ecological Mapping



Source: Cumberland Ecology

As noted in the Ecological Report, the majority of the site consists of large expanses of dense exotic grass species which contain very few native species. Notably, the patch size of the Cumberland Plain Woodland community is less than 0.5ha and consists of scattered patches comprising small numbers of remnant/regrowth tree only. Additionally, the patch size of the



Swamp Oak Floodplain Forest ecological community is less than 0.5ha in area and comprises an understorey vegetation cover of more than 50% exotic species.

The only listed species that has the potential to conform to the threshold for listing under the BC Act and the EPBC Act is River-flat Eucalypt Forest shown in blue in **Figure 8** above. The perennial understorey vegetative cover of this species is variable, with some patches potentially comprising of 30% or more of native species. The majority of the ground layer of the community is substantially degraded and dominated by exotic grass species, however some areas where trees are dense and less cleared have a native dominated ground layer.

Notably, as shown in the extract of the SEPP High Biodiversity Value map at **Figure 9** below. The area identified by Cumberland Ecology as accommodating River-flat Eucalypt Forest community generally corresponds to validated environmental zoned land and Additional High Conservation Value Vegetation (AHCVV) land in the High Biodiversity Values map of the SEPP.

As noted in the Draft Precinct Plan, there is currently 183.7ha of validated environmental land zoned Environment and Recreation under the Aerotropolis SEPP, resulting in a shortfall of 43.48 ha of environmental land required to be delivered to support and offset the new Airport. To account for the shortfall in environmental land, the Draft Precinct Plan indicates that it has been shaped to provide for the areas of mapped environmental land within open space network within the Aerotropolis Core Precinct and Badgerys Creek precinct.

The Draft Precinct Plan states that changes to the statutory framework are required to overcome this shortfall and to incorporate land identified in open space network as ENZ Environment and Recreation zoned land and within the High Biodiversity Values map of this SEPP.

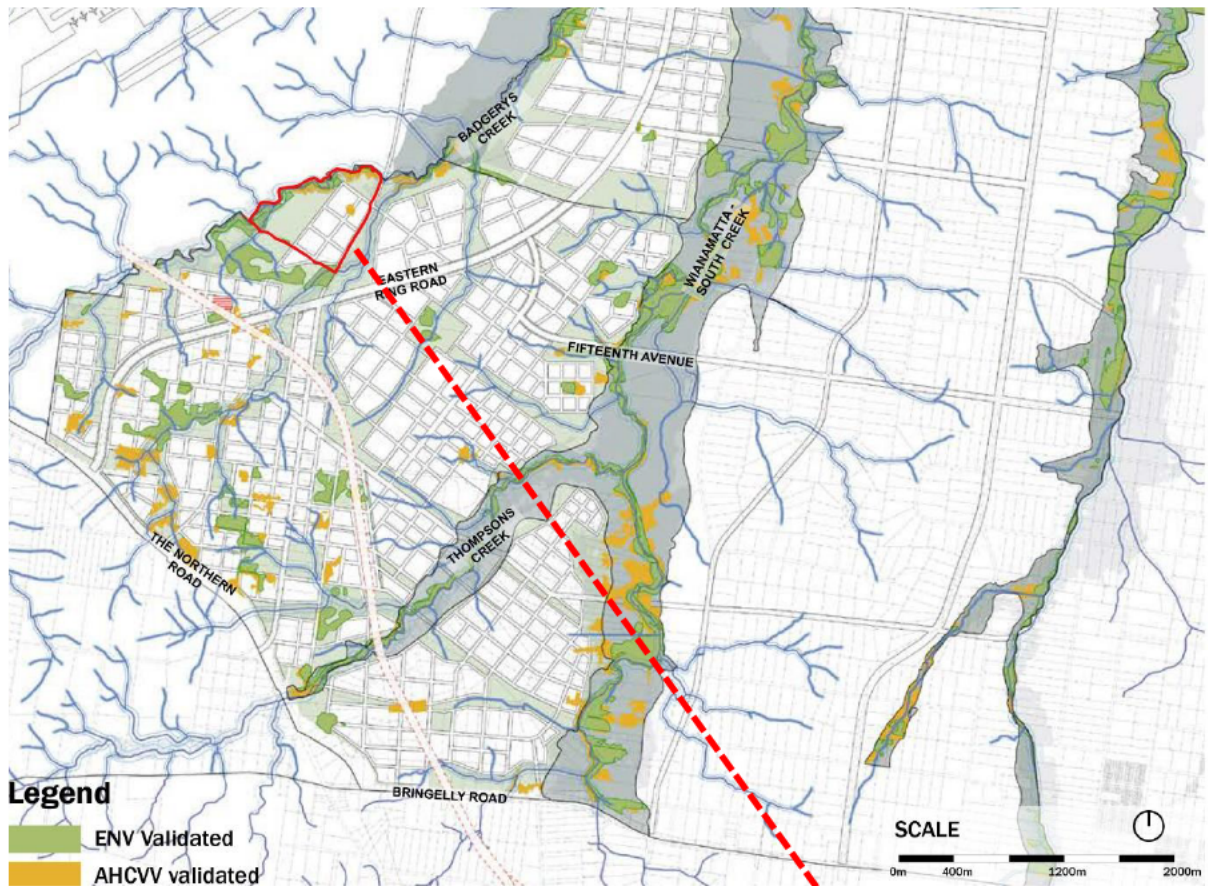
It is not considered appropriate for the Draft Precinct Plan and Aerotropolis SEPP to arbitrarily rezone land recently identified as ENT Enterprise to ENZ Environment and Recreation without any supporting evidence to demonstrate that there are ecological values present on the relevant sites. Applying an 'open space' overlay to areas required for the purposes of environmental purposes without any underlying biodiversity value is inconsistent with the objectives of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The only area of the site that might be considered in part suitable for retention and rehabilitation as a protected ecological community are some patches of the area identified as River Flat Eucalypt Forest. This generally aligns with the ENZ Environment and Recreation zone along the north-western portion of the site, freeing up the remainder of the site to deliver the forecast industrial, commercial and other supporting uses for the new airport, as well as the associated employment growth – in line with the lands zoning.

Further, any part of this ENZ Environment and Recreation zoned land that is identified as 'parkland' would need to be acquired and/or result in a corresponding reduction in developer contributions.



Figure 9 SEPP High Biodiversity Value map



Source: Aerotropolis SEPP (site boundary not exact)



We recommend the Precinct Plan be amended to reflect the actual environmental attributes of the site.



Views

As shown in **Figure 10** below, the site is identified as accommodating “long views”.

Richard Lamb and Associates (RLA) undertook a view analysis (refer **Appendix B**) to consider the basis for the Draft Precinct Plan’s identification of a large proportion of the site as open space, as well as the justification for applying a scenic and cultural overlay to the site under the Draft Precinct Plan.

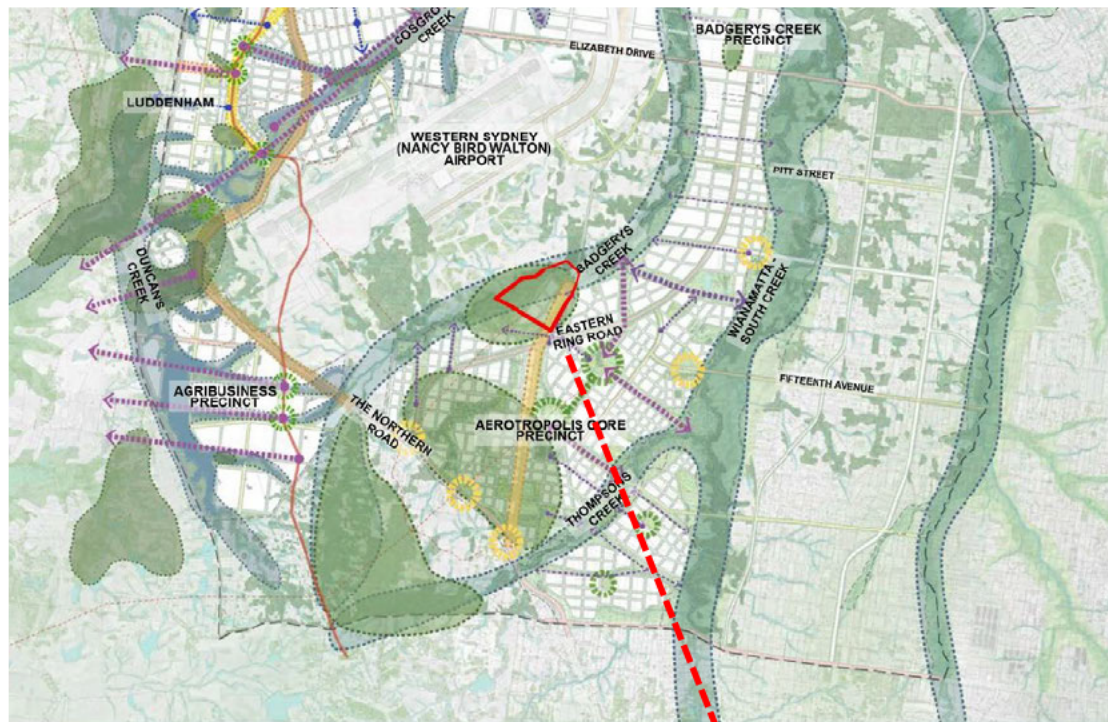
The RLA view analysis highlights the lack of any technical basis to the organising principle in relation to views. There are no technical reports to support it, no definitions to define it and there appear to be inconsistencies in the draft mapping that justify the land use decisions made or the placement of boundaries on the site.

The development potential of the site is proposed to be reduced in size and surrounded by parkland, that is constructed with no underlying environmental, scenic or cultural basis. This proposed parkland does not exist in the current environment, either physically or visually.

Furthermore, the identification of the constraints on the land seems to have arisen from incorrect mapping of this part of the site as having more natural vegetation than is actually present on the site. The Scenic and Cultural Connections map has several green lozenge-shaped areas with a green hatched boundary, that identify existing remnant vegetation, ‘framing long views’ (see **Figure 10**). An oval-shaped green area is located over the site. However, there are no technical studies from which this analytical plan is derived. Furthermore, there is no explanation as to what the long views are, how they are framed or from where they are experienced.














Figure 10 Scenic and Cultural Connections



Scenic and Cultural Connections
Western Sydney Aerotropolis

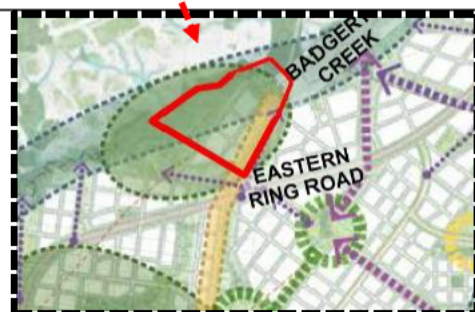
 The site

-  Ridges - currently predominantly open, non vegetated
-  Landform - subtly undulating
-  Filigree of creeks and dams
-  Wianamatta, Badgerys Creek and Thompsons Creek riparian corridor with associated vegetation - framing long views
-  Existing remnant vegetation - framing long views
-  Badgerys Creek Road with adjacent rural landscape setting

-  Open space on ridgetops or local high points
-  Creek to ridgetop connection through open space (visual and physical)
-  Creek to creek connection through open space
-  Views from streets towards the creeks and broader landscape (street grid oriented to terminate on a view towards creeks and ridge top)
-  Landscape gateway on arrival



Source: Aerotropolis Precinct Plan (site boundary not exact)





There is one identified view from the intersection of the existing Badgerys Creek Road and the future Eastern Ring Road, however this is not pointing toward the site but rather towards (existing?) vegetation in adjacent land south-west of the site. The potential view is theoretical in any event, as there are proposed building footprints directly in the view line.

The vegetation that is in the potential view corridor would not be visible in the real world, as buildings in the foreground complying with the heights envisaged in the Draft Precinct Plan would block the view of vegetation situated on land between a viewer and the vegetation. A similar observation can be made about the potential views across the site from future development areas to the south and south-east.

The RLA view analysis confirms that the green oval shaped area impacting the site is abstract and does not relate to any specific items on the site. Other sites on the same side of the road in the vicinity have a similar backdrop of vegetation seen at some distance, most of which is not subsequently identified as sitting under a green oval with green outline, like that applied to the site and adjacent areas.

The reference to 'long views' appears to relate to the visibility of riparian or other vegetation, seen at some distance, rather than the composition of a scene in terms of painterly or formal aesthetics. The locations from which potential views were identified may have been read off aerial images and topography maps rather than being confirmed by ground-truthing. This is confirmed by the absence of any surface evidence of the routes of ephemeral creeks that are mapped in various locations. The RLA view analysis also concludes that there would be no framed views from the existing road or future roads.

We recommend the Precinct Plan be amended to reflect the actual attributes of the site and:

- » The oval designation of existing vegetation framing long views be removed from the site; and
- » The linear designation of the existing creek and associated vegetation framing long views be significantly modified to align with the creek only.

Aboriginal Heritage

Section 6 of the Precinct Plan deals with "Heritage and Cultural Conservation" and aims to ensure that the significant elements of the past are appropriately managed and respected by new development. Section 6.3 "Aboriginal Cultural Heritage" of the Precinct Plan states that it will be necessary for an "initial investigation" to be undertaken to determine if the proposed development or activity occurs on land potentially containing an item of Aboriginal archaeology or is within an area of cultural significance to Aboriginal peoples. If any of the above features apply then the relevant Aboriginal community must be consulted, as part of the initial investigation to ensure that the potential for the land to contain Aboriginal sites, places or relics has not been overlooked by previous studies.

Aboriginal heritage investigations were undertaken for the site in 2014 to support the DA for the approved quarry on the site.

The 2014 Archaeological Report (prepared by Extent) identified four listed potential Aboriginal heritage sites on the subject site as shown in **Figure 11** below (the area of archaeological



potential is shaded red, the approved quarry is shown in yellow and the registered sites in blue and green points).

Extent could not locate either AHIMS #45-5-2703 or AHIMS #45-5-3096 at the time of the survey, there was no evidence of substantial ground disturbance in the registered locations, and it was considered likely that the artefacts remain present. Extent also undertook consultation with the field representatives regarding AHIMS #45-5-2694, whereby it was concluded that the scar was unlikely to be the result of cultural modification, as the uneven scar is more indicative of branch detachment or bushfire.

Figure 11 Archaeological Sensitivity Map (Extent 2014)



Source: Extent 2014

No previously unrecorded Aboriginal sites were identified as a result of the 2014 Extent survey. It was also determined that as most of the subject property consists of low-lying creek flat or flood plain, artefact densities are likely to be low. In addition, clearing and agricultural use of the land, and localised erosion is likely to have disturbed much of the (generally shallow) soil profile, reducing the integrity of any archaeological resource present.

Kayandel was commissioned to provide heritage advice for the site in relation to the Draft Precinct Plan (refer **Appendix C**). In doing so, Kayandel has reviewed the report prepared by Extent (2020) which provides an Aboriginal and non-Aboriginal Cultural Heritage Assessment for the initial precincts within the Western Sydney Aerotropolis. Extent has undertaken an initial



high-level desktop analysis designed to guide the precinct planning and highlight key heritage issues and areas of sensitivity. No field work was undertaken by Extent as part of preparing their assessment.

A review of the Extent (2020) report identifies that the report does not consider Extent's previous investigations of the site in 2014. The recent assessment of Aboriginal archaeological sensitivity on the site does not appear to consider historic imagery, which shows that by 1947, the site "had been almost entirely cleared of large vegetation, apart from a narrow corridor along Badgerys Creek and a few scattered trees across the property" (Extent 2014).

Extent's 2020 report makes the following recommendation regarding culturally modified trees (i.e. AHIMS #45-5-2695 and AHIMS #45-5-2694):

Development should be avoided by design in and around specific Aboriginal heritage site types, such as modified trees (carved or scarred) and grinding grooves.

However, in Extent's previous 2014 report for the site it noted that, in conjunction with the Aboriginal stakeholders, Extent had assessed the scar on AHIMS #45-5-2695 to not be indicative of cultural modified as the tree was less than 60 years old.

Kayandel does not consider the above recommendation made in Extent's 2020 report to be a constraint on development within the Subject Property, as Extent previously assessed in 2014 the modified trees identified as potential archaeological items as unlikely to be the result of cultural modification.

On this basis of the previous tree removal within the site, Kayandel does not consider the below recommendation from Extent to be a constraint on development:

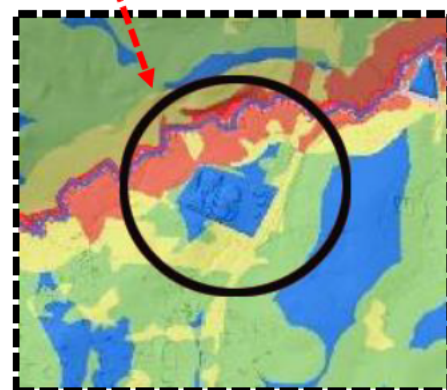
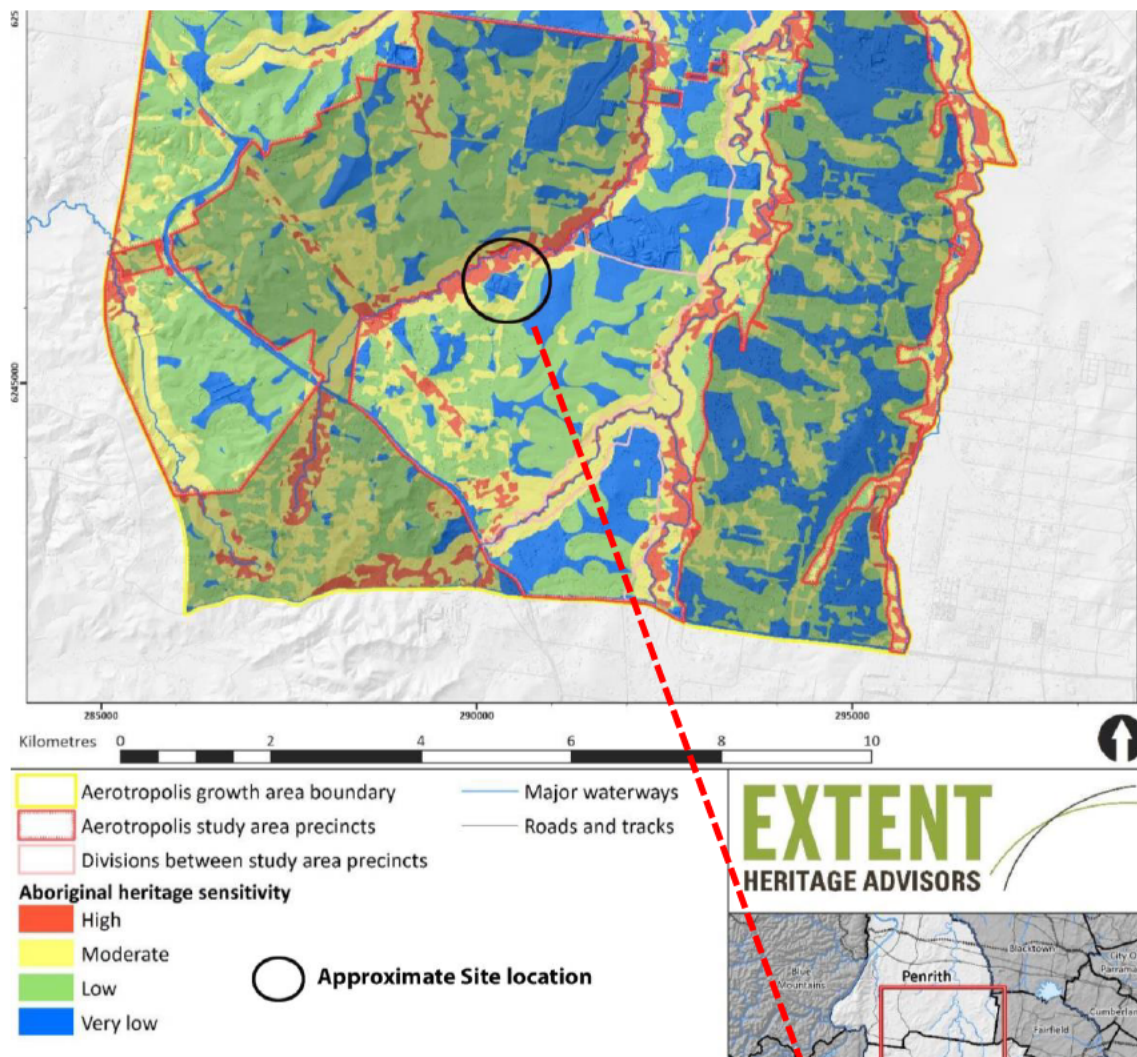
areas of remnant old growth vegetation and well-preserved creek corridors should be protected where possible

Furthermore, Extent does not appear to explain the process by which the Aboriginal archaeological sensitivity (refer to **Figure 12**) was determined. The high-level Aboriginal archaeological sensitivity mapping presented in **Figure 12** shows the subject property as having very low to high archaeological sensitivity, with moderate to high sensitivity along Badgerys Creek. This is counter to Extent's 2014 site specific assessment of Aboriginal archaeological potential, where the terrace/levee landform to the east of Badgerys Creek was assessed as being moderate (see **Figure 11** above).

A review of **Figures 12 and 13** indicates that the degree of the property that was assessed in 2020 to be sensitive is much greater than previously states by Extent in 2014. In light of Extent's recent investigation being limited to a desktop assessment, Kayandel suggests that the that the property specific assessment of archaeological potential by Extent in 2014 take precedence.



Figure 12 Archaeological heritage map (Extent 2020)





We recommend the Precinct Plan be amended to reflect the *actual* Cultural attributes of the site as assessed by Extent in 2014 and note that heritage conservation does not *prevent* development from occurring but rather requires an appropriate response to different constraints and opportunities on a particular site.

Infrastructure Delivery

Elford Group supports the identification of the site as being within the first priority area for infrastructure delivery. The application of any requirement to provide public space on the site should be factored into any contribution requirements that impact the site with appropriate deductions applied for any public benefit derived from the provision of open space on the site.

Conclusion

We would like to thank the Western Sydney Planning Partnership (WSPP) and DPIE for the work undertaken in developing the Draft Precinct Plans. However, significant concerns are raised in relation to structure and controls in the Precinct Plans particularly the proposal to apply and 'open space' overlay to the north-western portion of the site without any reasonable planning or environmental basis for doing so.

On this basis, we request that WSPP take the following recommendations into account when finalising the Precinct Plan:

- » incorporation of a process that permits more detailed site-level studies to reach evidence-based solutions and promote an alternative pattern of development on the ground; and
- » Further consultation with impacted stakeholders that clearly identifies the priorities of NSW Government and explains the processes required for the delivery of enterprise development .
- » Incorporation of flexibility in the application of development controls like other similar environmental planning instruments.
- » Removal of any reference to an 'open space' overlay across the site
- » Provision of a more flexible approach to identification of appropriate building footprints across the site
- » Provision of detailed GIS mapping to assist stakeholders in confirming the key controls proposed for sites.
- » Application of new height limit of 59.5m to the site and the higher development be permitted more broadly across relevant parts of the Precinct and in line with the OLS limitations (with some exceptions and lower building heights in locations where there could be an impact on proposed new population centres).
- » Deletion of the maximum block size limit and the control be deleted from the Precinct plan or clarification that it is provided as advice only.
- » Clarification that the employment guidelines are provided as advice only.
- » Revision to reflect the actual environmental attributes of the site.



- » Removal of the oval designation of existing vegetation framing long views from the site.
- » Modification of the linear designation of the existing creek and associated vegetation framing long views to align with the creek only.
- » Revision to reflect the *actual* Cultural attributes of the site as assessed by Extent in 2014 and to note that heritage conservation does not *prevent* development from occurring but rather requires an appropriate response to different constraints and opportunities on a particular site.

On behalf of Elford Group, we welcome the opportunity to work with the WSPP in delivering the new airport and supporting infrastructure consistent with the bold vision set out in the WSAP planning package.

Elford Group requests that it be included in any landowner consultation and other documents that may impact its land. Should you have any queries, please contact Robert Bennet at Elton Consulting.

Yours sincerely

Robert Bennett
Director

[Redacted contact information]



Appendix A

23 February 2021

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Western Sydney Aerotropolis SEPP –Ecological Assessment for Lot 1 DP 1188956

Dear Robert,

The purpose of this letter is to provide an ecological assessment that identifies the potential ecological opportunities and risks to the future development of Lot 1 DP 1188956 (hereafter referred to as the 'subject site') following the exhibition of draft precinct plans for the various precincts under the *State Environment Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP).

Planning approval for the subject site was originally granted under the *State Environment Planning Policy (Sydney Growth Centres) 2006* (Growth Centre SEPP). However, as the subject site is fully contained within the land subject to the Aerotropolis SEPP, it is subject to the relevant precinct plans, namely the Draft Aerotropolis Core Precinct Plan, currently on exhibition.

Our site inspection and review of the relevant documentation has confirmed that the proposed layout and extent of 'Green Spaces', comprising a mix of regional parkland and riparian/linear parkland, to be rezoned as ENZ – Environment and Recreation under the Aerotropolis Core Precinct Plan significantly reduces the amount of ENT – Enterprise zoned land within the subject site which was previously allowed to be developed. This proposed expansion of the ENZ zoned land of the subject site is inconsistent with both the Growth Centre SEPP and the objectives of ENT zoned land under the Aerotropolis SEPP.

The potential for wildlife attraction, in particular birds, as a result of the creation of new green spaces within a specific distance from the Western Sydney Airport and the resultant risk of wildlife strike will require additional ecological mitigation and management strategies within the subject site which will severely restrict the ecological value of those wildlife corridors.

Appendix A of this letter includes a summary of the methodology implemented as well as our results and an assessment of the ecological risks and opportunities to development of the subject site. **Appendix B** contains the flora list for the subject site. Various figures are included at the end of this document.

If you have any questions or wish to discuss the contents of this letter further, please do not hesitate to contact either myself or Gitanjali Katrak via email or at our Sydney office on (02) 9868 1933.

Yours sincerely,

Sally Dupont
Project Manager / Ecologist

[Redacted signature block]



A.1. Background

Cumberland Ecology has been requested by Elton Consulting Group Pty Ltd (Elton) to prepare an Ecological Report regarding the impacts of the Western Sydney Aerotropolis State Environment Planning Policy (SEPP) on a site located south of the new Western Sydney International Airport that is under construction Badgerys Creek Road, comprising Lot 1 DP 1188956 (the 'subject site') (see **Figure 1**). The subject site is located in the Liverpool Local Government Area (LGA) and was previously zoned as Rural under the Liverpool Local Environment Plan (LEP) 2008.

The *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP) commenced on 1 October 2020. The Western Sydney Aerotropolis is the new economic hub that will surround the Western Sydney International (Nancy-Bird Walton) Airport and provide jobs and places to learn within a connected Western Parkland City. The Aerotropolis is divided into nine precincts, spread across multiple LGAs, including the Liverpool LGA. The subject site is within the Aerotropolis Core Precinct of the Western Sydney Aerotropolis according to the Western Sydney Aerotropolis Plan and has been zoned almost entirely as ENT – Enterprise according to the Aerotropolis SEPP (**Figure 2**). Although the draft Aerotropolis Core Precinct Plan that is currently on exhibition acknowledges that the native vegetation has been removed from the site, significantly less development on the subject site is proposed according to the plan than would have been suggested by the extent of the ENT – Enterprise zoning.

The purposed of this brief ecological report is to verify what biodiversity values are actually on the land. It is understood that this would form part of a public submission on the draft Aerotropolis Core Precinct Plan.

A.2. Desktop Assessment

Desktop assessment involved a detailed review of exhibited documentation for the Aerotropolis SEPP, and supporting technical ecological documents as well as available layouts and plans. The desktop assessment included review of the following resources:

- Draft Cumberland Plain Conservation Plan (DCPCP) (DPIE 2020b) exhibition documents and maps, as publicly available;
- *State Environment Planning Policy (Western Sydney Aerotropolis) 2020*; in particular
 - Part 2: Land Use Zoning and Land Use Table;
 - Land Zoning Map (Sheet LZN_001);
 - Wildlife Buffer Zone Map (Sheet WBX_001);
 - High Biodiversity Value Areas Map (Sheet HBV_001); and
 - Key Sites Map (Sheet KYS_001);
- *State Environment Planning Policy (Sydney Growth Centres) 2006*; in particular
 - Land Zoning Map – Edition 3 (Sheet LZN_001)

- Overview of the Aerotropolis Core Precinct Plan;
- Western Sydney Aerotropolis - Draft Biodiversity Assessment (Eco Logical Australia 2020);
- Western Sydney Aerotropolis - Draft Growth Centres Biodiversity Consistency Report (DPIE 2020a); and
- Western Sydney Aerotropolis – Draft Wildlife Management Assessment Report (Avisure 2020).

A.3. Site Inspection

An inspection of the subject site was undertaken by a botanist and ecologist from Cumberland Ecology on 17 February 2021 in order to verify the ecological values present, during which a flora and fauna habitat assessment was also conducted.

The flora assessment consisted a random meander survey, during which the vegetation communities occurring on the subject site were mapped and the dominant plant species in each community recorded. This assessment was conducted with a particular focus on verification of whether vegetation communities conform to Threatened Ecological Communities (TECs) listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or the Commonwealth *Environment Protection and Biodiversity Act 1999* (EPBC Act).

A fauna habitat assessment was also undertaken on the subject site, to identify potential habitat for fauna species. The site was assessed for ground, shrub/understorey and canopy cover, and habitat features such as bush rock and fallen trees and logs, and signs of fauna usage such as scats and scratches. An assessment of the structural complexity of vegetation and the nature and extent of human disturbance throughout the subject site was also recorded.

A.4. Key Findings

A.4.1. Vegetation within the Subject Site

The flora assessment undertaken during the site inspection identified the six vegetation communities present within the subject site. These vegetation communities are further described below. The vegetation mapping for the subject site is shown in **Figure 3** and a flora species list for the subject site is shown in **Table 1** in **Appendix B**.

A.4.1.1. Cumberland Plain Woodland

BC Act Status: Critically Endangered Ecological Community

EPBC Act Status: Does not conform – the patch size of the ecological community is less than 0.5ha in area and thus does not meet any of the Condition Thresholds for Patches located in Table 1 of the EPBC Act Listing Advice.

This community persists as scattered patches comprising small numbers of remnant/regrowth trees only. Patches generally adjoin the cleared areas of the subject site at higher elevations. The patches are highly degraded and dominated by exotic grasses in the ground layer.

Canopy species recorded within the community include *Eucalyptus moluccana* (Grey Box), *Eucalyptus tereticornis* (Forest Red Gum), and *Eucalyptus eugenioides* (Thin-leaved Stringybark).

Bursaria spinosa (Blackthorn) is the only shrub species present in any patches, although juvenile individuals of canopy species were present.

Dominant grasses in the ground layer are the exotics *Paspalum dilatatum* (Paspalum), *Setaria parviflora* (Pigeon Grass), and *Chloris gayana* (Rhodes Grass). Other species present include the natives *Lobelia purpurascens* (Whiteroot), *Oxalis perennans* (Grassland Wood-sorrel), and *Commelina cyanea* (Scurvy Weed), and the exotic species *Sida rhombifolia* (Paddys Lucerne) and *Sonchus oleraceus* (Milk Thistle).

An example of this community is shown in **Photograph 1**.

Photograph 1 Cumberland Plain Woodland present within the subject site



A.4.1.2. River-flat Eucalypt Forest

BC Act Status: Endangered Ecological Community

EPBC Act Status: some patches may conform – the perennial understorey vegetative cover present is variable, with some patches potentially comprising of 30% or more of native species and thus could meet the condition classes and thresholds for the ecological community located in Table 4 of the EPBC Act Listing Advice.

This community occurs along the entirety of the north-western boundary of the site, and extends into grassland areas as patches of small numbers of scattered trees. The community is associated with lower lying areas of the site consisting of a large flood plain of Badgerys Creek. The majority of the ground layer of the community is substantially degraded and dominated by exotic grass species, however some areas where trees are dense and less cleared have a native dominated ground layer.

Canopy species present in the community include *Angophora subvelutina* (Broad-leaved Apple), *Eucalyptus tereticornis*, *Eucalyptus amplifolia* subsp. *amplifolia* (Cabbage Gum), *Casuarina glauca* (Swamp Oak), and *Eucalyptus moluccana*. A small tree layer is present in some areas with species present including *Melaleuca decora* (White Feather Honey-myrtle), and *Melaleuca styphelioides* (Prickly-leaved paperbark).

The shrubs species *Bursaria spinosa* is common in the shrub layer and occurs with the native species *Acacia falcata* (Sickle Wattle), and exotic species *Ricinus communis* (Castor Oil Plant), and *Olea europaea* subsp. *cuspidata* (African Olive).

The ground layer is generally variably dominated by the exotic species *Paspalum dilatatum*, *Chloris gayana*, *Cenchrus clandestinus* (Kikuyu), and *Megathyrsus maximus* (Guinea Grass). Areas dominated by native grasses are dominated by *Microlaena stipoides* var. *stipoides* (Weeping Grass). A large number of other species are present in the layer including the natives *Hypericum gramineum* (Small St John's Wort) and *Alternanthera denticulata* (Lesser Joyweed), and exotics *Bidens subalternans* (Greater Beggar's Ticks) and *Cyperus eragrostis* (Umbrella Sedge).

Example of this community within the subject site is shown in **Photographs 2-3**.

Photograph 2 A large patch of River-flat Eucalypt Forest found within the subject site



Photograph 3 River-flat Eucalypt Forest – scattered trees



A.4.1.3. Swamp Oak Floodplain Forest

BC Act Status: Endangered Ecological Community

EPBC Act Status: Does not conform – the patch size of the ecological community is less than 0.5 ha in area and comprises an understorey vegetation cover of more than 50% exotic species and thus does not meet any of the Condition Thresholds located in Table 1 of the EPBC Act Listing Advice.

This community consists of a single patch dominated by *Casuarina glauca* (Swamp Oak) within grasslands in the north-east (**Photograph 4**). A single tree of *Angophora subvelutina* is also present in the patch.

The ground layer is dominated by the native grass *Microlaena stipoides* var. *stipoides*, although exotics such as the grass *Paspalum dilatatum* are common.

A second patch dominated by *Casuarina glauca* is present to the south, although as it occurs at an elevation above the flood plain where the species naturally occurs this patch is likely not naturally occurring and has either been planted or is result of a human process such as transporting soil moving soil seed from elsewhere to the location it occurs in (**Photograph 5**).

Photograph 4 Swamp Oak Floodplain Forest found within the subject site



Photograph 5 Patch of artificial Swamp Oak Floodplain Forest present within the subject site



A.4.1.4. Exotic Dominated Grassland

BC Act Status: Not listed

EPBC Act Status: Not listed

The majority of the site consists of large expanses of dense exotic grass species which contain very few native species. Dominant exotic species are the grasses *Paspalum dilatatum*, *Setaria parviflora*, and *Chloris gayana*. Some native species such as the grasses *Themeda triandra* and *Microlaena stipoides* var. *stipoides* are scattered throughout

An example of this community is shown in **Photograph 6**.

Photograph 6 Exotic Dominated Grassland present within the subject site



A.4.1.5. Derived Native Grassland

BC Act Status: Does not conform – floodplain communities do not have derived native grassland forms listed under either the BC Act.

EPBC Act Status: Does not conform – floodplain communities do not have derived native grassland forms listed under either the BC Act.

One patch of grassland dominated by native species occurs in the north-east of the site. This patch is dominated by *Microlaena stipoides* var. *stipoides* with *Themeda triandra* occurring commonly. Native forbs such as *Tricoryne elatior* (Yellow Autumn-lily) and *Wahlenbergia gracilis* (Native Bluebell) are common.

Small regrowth individuals of native shrubs including *Kunzea ambigua*, *Bursaria spinosa*, and *Melaleuca decora* are present throughout this area, indicating they were dominant prior to being slashed.

The location of the grassland on the floodplain adjacent to patches of Swamp Oak Floodplain Forest and River-flat Eucalypt Forest indicates it is derived from a floodplain community, rather than Cumberland Plain Woodland. Swamp Oak Floodplain Forest and River-flat Eucalypt Forest do not have derived native grassland forms listed under either the BC Act or EPBC Act. The derived native grassland found within the subject site therefore does not form constitute a threatened ecological community.

An example of this community is shown in **Photograph 7**.

Photograph 7 Derived Native Grassland present within the subject site



A.4.1.6. Shrubby Regrowth

Shrubby regrowth is present in several areas adjacent to mapped woodland and forest areas, and on piles of exposed soil adjacent to a dam in the north-east. Shrubby regrowth is comprised of juvenile individuals of canopy and shrub species occurring elsewhere within the site. The species present in the shrubby regrowth were generally characteristic of River-flat Eucalypt Forest species.

An example of this vegetation is shown in **Photograph 8**.

Photograph 8 Shrubby Regrowth found around the dam present within the subject site



A.4.2. Draft Cumberland Plain Conservation Plan Mapping

The NSW Government has identified four areas for urban growth and other development (referred to as 'nominated areas') and a series of transport corridors within and outside the nominated areas to support the future growth of Western Sydney. The nominated areas include:

- Greater Macarthur Growth Area;
- Greater Penrith to Eastern Creek Investigation Area;
- Western Sydney Aerotropolis; and
- Wilton Growth Area.

Overall, the DCPCP identifies the following categories of land within the nominated areas:

- Certified Urban Capable: development can occur without further biodiversity assessments, subject to development approval in accordance with precinct plans;
- Non-certified – Western Sydney Aerotropolis: 1 in 100 year flood affected land and other vegetated land within the Aerotropolis SEPP area;
- Non-certified – avoided for Biodiversity Purposes: land to be protected for its important environmental value and to be rezoned E2 Environmental Conservation;

- Non-certified – avoided for other purposes: land that has riparian corridors, steep slopes or other constraints such as flood risk and is to be rezoned E2 Environmental Conservation; and
- Excluded: land is excluded from the strategic certification as it is either already developed for urban use, is already subject to environmental protection or specific zoning, or is subject to a separate biodiversity approval process.

The subject site is identified as 'Excluded Land' under the DCPCP as it overlaps with the South West Growth Centre and is therefore already subject to specific zoning under the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* ('Growth Centre SEPP').

A.4.3. State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The majority of the subject site lies within Biocertified Land under the Growth Centre SEPP. As part of the biocertification process, the impacts of vegetation removal and offsets have already been considered as part of the assessment for the Growth Centre SEPP. Consequently, no further ecological assessments of the biocertified portions of the subject site are required.

Under the Growth Centre SEPP, the entirety of the subject site has been zoned as 'Future Industrial' use except for a small buffer in the proximity of Badgerys Creek along the north-western boundary of the subject site which has not been zoned (**Figure 4**).

A.4.4. Aerotropolis SEPP Land Zoning and Mapping

The majority of the subject site has been zoned as 'ENT – Enterprise', with a small area around Badgerys Creek zoned as 'ENZ – Environment and Recreation' under the Aerotropolis SEPP. This is consistent with the zoning of the subject site under the Growth Centre SEPP (**Figure 4**).

Under the Aerotropolis SEPP, the objectives of the ENT zoning are to:

- Encourage employment and business related to professional services industries;
- Provide a range of employment uses that are compatible with future technology and work arrangements;
- Encourage development that promotes efficient use of resources, through waste minimisation, recycling and re-use;
- Ensure an appropriate transition from non-urban land uses and environmental conservation areas in surrounding areas to employment use in the zone;
- Prevent development that is not compatible with or may detract from future commercial use of the land; and
- Provide facilities and services to meet the needs of businesses and workers.

Under the Aerotropolis SEPP, areas identified in the DCPCP as 'Excluded Land' have largely been zoned as 'ENZ'. Although the subject site is identified as exempt land in the DCPCP, all of the areas zoned ENZ within the subject site occur along Badgerys Creek that connect excluded areas of the Wianamatta-South Creek

Precinct to the north-east. Therefore, the zoning within the subject site is consistent with the broad-scale objectives of the Aerotropolis SEPP and DCPCP to create connected areas of 'blue spaces' and 'green spaces' (see **Section A.4.5**).

The subject site lies entirely within the 3 km wildlife buffer zone. Therefore, implementation of control measures to mitigate wildlife hazards will need to be applied to relevant areas as required (see **Section A.4.7**).

The subject site also contains a small area of riparian vegetation along Badgerys Creek identified on the High Biodiversity Values map.

A.4.5. Draft Biodiversity Assessment and Draft Growth Centres Biodiversity Consistency Report

The technical ecological documents currently on exhibition comprises Draft Biodiversity Assessment report (Eco Logical Australia 2020) and a Draft Aerotropolis Precinct Plan - Biodiversity Consistency report (DPIE 2020a).

Under the DCPCP, areas subject to the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* are excluded from the DCPCP certification process. However, as parts of the Growth Centre overlap with the Aerotropolis precincts, identification of key ecological features and constraints within the Growth Centres was required to inform the rezoning and precinct planning process.

The studies outlined in the Biodiversity Consistency Assessment report for the Draft Aerotropolis Precinct Plan are limited to the areas of the Aerotropolis SEPP that overlap with the South West Growth Centre and therefore is limited to parts of the Aerotropolis Core Precinct and parts of the Badgerys Creek and Wianamatta-South Creek Precincts.

The report concluded that the Draft Aerotropolis Precinct Plan is consistent with the overall objectives and aims of the Growth Centres SEPP. Specifically, the Draft Aerotropolis Precinct Plan proposes to protect areas of validated Existing Native Vegetation by zoning these areas as ENZ. This will require the amendment of some of the current ENZ zoning under the Aerotropolis SEPP. These areas will also be identified on the Biodiversity Values Map. However, as shown in **Figure 5**, this will result in only a minor increase to the current ENZ mapping of the subject site which is not expected to significantly affect the overall ENT zoning and related activities within the subject site.

On the other hand, the rezoning of land designated as 'Green Spaces' on the 'Open Space Network' as ENZ will significantly reduce the amount of ENT zoned land within the subject site which is inconsistent with ENT objectives under the Growth Centre SEPP (see **Section A.4.6** for more details).

A.4.6. Aerotropolis Core Precinct Plan

The Aerotropolis SEPP and the Aerotropolis Core Precinct Plan (ACPP) refer to a 'Blue-Green Infrastructure Framework' which comprises an interconnected network of riparian corridors, parks, open spaces and streetscapes, supported by additional vegetation and planted areas on private lots.

Under the ACP, the 'Green Spaces' and 'Open Space Network' within the subject site comprise a mix of regional parkland, riparian/linear parkland and streetscapes. The area marked as regional parkland within the subject site is restricted to the riparian area surrounding Badgerys Creek and is consistent with the ENZ mapping under the Aerotropolis SEPP.

However, the area designed as riparian/linear parklands extends further south from the riparian corridor into land within the subject site that has been zoned as ENT under the Aerotropolis SEPP, thereby significantly reducing the amount of land allowed to be developed for that purpose (**Figure 6**). The proposed mapping of the riparian/linear parkland within the subject site is in contradiction with the ENT zoning objectives under the Aerotropolis SEPP, as the retainment of existing vegetation and revegetation of the area is not compatible with and will detract from the future commercial use of the subject site.

Furthermore, although some existing native vegetation is present within areas proposed to be mapped as riparian/linear parkland, the majority consists of exotic dominated grassland and previously cleared land which will need to be revegetated as part of the objective of the ACP to provide connecting 'Green Spaces' corridors along the riparian zones of Badgerys Creek, Thompson Creek and Wianamatta-South Creek. However, the retained vegetation as well as required revegetation plantings will be restricted by measures detailed in the Draft Wildlife Management Assessment Report (see **Section A.4.7**).

A.4.7. Draft Wildlife Management Assessment (DWMA) Report

A primary aim of the DCPCP and Aerotropolis SEPP is to create 'blue spaces' and 'green spaces' to enhance biodiversity across the Western Parkland City. Green space creation is largely proposed to occur within the ENZ zone, MU zones in the Aerotropolis Core and Northern Gateway, Luddenham Village and areas subject to Biodiversity Certification.

However, the attraction of these green spaces for wildlife, in particular birds and bats, poses a risk to aircraft operations via wildlife strikes. Therefore, in order to achieve the requisite areas of green spaces to enhance biodiversity, wildlife hazard mitigation is to be applied to relevant uses and appropriate monitoring is to be used to identify any emerging risks and requirement for any active control measures. If a proposed land use is identified as a 'moderate' or higher wildlife hazard, as a minimum a Wildlife Management Plan is required for the relevant site.

The subject site lies within the 3 km wildlife buffer (Area A, Sub-area A2) and the proposed green spaces, as per the ACP, comprise a regional parkland and riparian/linear parkland. In accordance with the Aerotropolis Aviation Wildlife Safeguarding Framework, waterways (and associated riparian corridors) and urban open spaces comprise a 'moderate' wildlife hazard and for proposed developments within the 3 km radius, mitigation measures will need to be implemented. Therefore, a Wildlife Management Plan will likely be required for the subject site.

The delivery of green spaces within the subject site will be required to give consideration to wildlife strike hazard and any vegetation management plans or landscaping plans prepared to guide the revegetation and management of the riparian corridor and parks will need to give due regard to the planting and landscaping principles provided in Appendix B of the DWMA report (Avisure 2020). As a minimum, it is assumed that the following will need to be considered for the subject site:

- Adjustment of species selection for replanting within the proposed riparian/linear parkland area to decrease proportion of locally endemic eucalypt species, such as *Eucalyptus tereticornis* and *Eucalyptus moluccana* which are a high wildlife attractant, and increase proportion of locally endemic riparian species such as *Casuarina glauca* which are a proportionately lower attractant;
- Reduce habitat enhancement that can serve as perching structures for birds (e.g. felled trees in the water);
- Establishment of a regular monitoring program at quarterly intervals, spread across different seasons/time to day to establish composition of wildlife utilising the site and ongoing assessment of wildlife composition against Western Sydney Airport strike risk species (avifauna species);
- Establishment of a waste management plan for urban park areas to reduce flocking of common urban adapted fauna; and
- Installation of anti-perching measures in build environments (e.g. netting, anti-perching spikes).

The existing vegetation which would need to be retained as part of the riparian/linear parkland under the Aerotropolis Core Precinct Plan is in direct conflict with the recommendations of the DWMA as it currently contains high wildlife attractant species such as *Eucalyptus moluccana*, *Eucalyptus tereticornis* and *Melaleuca decora* which are also components of TECs.

A.5. Conclusion

The majority of the subject site is currently zoned ENT under the Aerotropolis SEPP, except for a small buffer along the riparian zone of Badgerys Creek to the north-west which is zoned as ENZ. This mapping is consistent with the zoning under the Growth Centre SEPP. Areas within the subject site zoned as ENT have previously been biocertified under the Growth Centre SEPP.

The proposed inclusion of 'Green Spaces' as part of the 'Open Spaces Network' under the Draft Aerotropolis Core Precinct Plan will significantly increase the ENZ zoning, thereby reducing the ENT zoned land within the subject site which can be developed for commercial use, as previously allowed under both the Growth Centre SEPP and Aerotropolis SEPP.

This proposed expansion of 'Green Spaces' (riparian/linear parklands) is in direct contradiction to the objectives of the ENT zoning under the Aerotropolis SEPP as is not compatible with and will detract from the future commercial use of the subject site.

Furthermore, the subject site lies within the 3 km wildlife buffer and therefore the 'Green Spaces' comprise a 'moderate' risk which requires active mitigation measures. Since most of the vegetation proposed to be retained as a 'Green Space' consists of exotic dominated grassland and previously cleared land, it will need to be revegetated. However, the species allowed for replanting are confined to low fauna attractant species which contradicts the aim of the wildlife connectivity corridors propose to connect the vegetation along Badgerys Creek, Thompson Creek and Wianamatta-South Creek . Additionally, the canopy species permitted for planting under the DWMA consists predominantly of *Casuarina glauca*, which, through natural revegetation over time, could potentially degrade the River-flat Eucalypt Forest community present within the riparian corridor buffer

of the subject site. Also, the existing vegetation proposed to be retained contains high wildlife attractant species which are not permitted under the DWMA.

The proposed expansion of the ENZ zoning within the subject site has no ecological benefit given the restrictions imposed by the proximity to the airport. The ecological value of providing additional wildlife habitat through 'Green Space' corridors connecting Badgerys Creek, Thompson Creek and Wianamatta-South Creek is negated by the wildlife hazard to the airport these corridors create and the requirement for mitigation measures such as planting low attractant flora species and anti-perching measures which actively discourage fauna from utilising the area. It is therefore recommended that the Draft Aerotropolis Core Precinct Plan be revised to take these issues into consideration.

A.6. References

- Avisure. 2020. Western Sydney Aerotropolis - Draft Wildlife Management Assessment Report. Western Sydney Planning Partnership.
- DPIE. 2020a. Biodiversity Consistency Assessment - Draft Western Sydney Aerotropolis (Aerotropolis Core, Badgerys Creek and Wianamatta-South Creek) Precinct Plan. Western Sydney Planning Partnership.
- DPIE. 2020b. Draft Cumberland Plain Conservation Plan 2020-56. NSW Department of Planning, Industry and Environment.
- Eco Logical Australia. 2020. Western Sydney Aerotropolis - Draft Biodiversity Assessment. Western Sydney Planning Partnership.



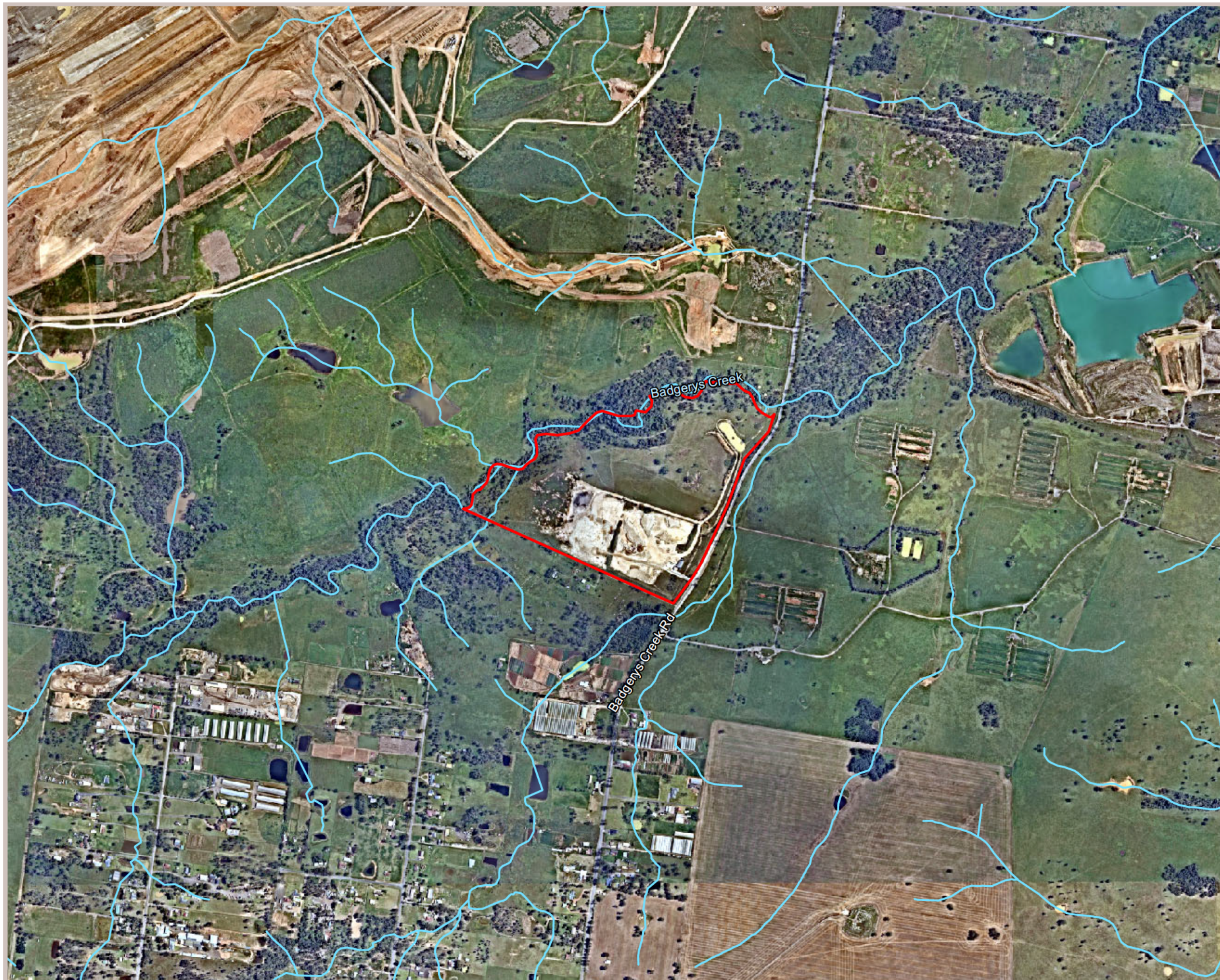
Table 1 Flora species list for the subject site

Family	Scientific Name	Common Name	Exotic	CPW	RFEF	Exotic Dominated Grassland
Amaranthaceae	<i>Alternanthera denticulata</i>	Lesser Joyweed			X	
Amaranthaceae	<i>Gomphrena celosioides</i>	Gomphrena Weed	*			X
Apocynaceae	<i>Araujia sericiflora</i>	Moth Vine	*		X	
Asteraceae	<i>Bidens subalternans</i>	Greater Beggar's Ticks	*		X	
Asteraceae	<i>Conyza bonariensis</i>	Flaxleaf Fleabane	*		X	
Asteraceae	<i>Conyza sumatrensis</i>	Tall fleabane	*		X	
Asteraceae	<i>Hypochoeris radicata</i>	Catsear	*		X	
Asteraceae	<i>Lactuca serriola</i>	Prickly Lettuce	*		X	
Asteraceae	<i>Sonchus oleraceus</i>	Common Sowthistle	*	X		
Basellaceae	<i>Anredera cordifolia</i>	Madeira Vine	*		X	
Brassicaceae	<i>Brassica rapa</i>	Turnip	*		X	
Campanulaceae	<i>Lobelia purpurascens</i>	Whiteroot		X		
Casuarinaceae	<i>Casuarina glauca</i>	Swamp Oak			X	
Chenopodiaceae	<i>Einadia nutans</i>	Climbing Saltbush		X	X	
Clusiaceae	<i>Hypericum gramineum</i>	Small St John's Wort			X	
Commelinaceae	<i>Commelina cyanea</i>	Native Wandering Jew		X	X	
Commelinaceae	<i>Tradescantia fluminensis</i>	Wandering Jew	*		X	
Convolvulaceae	<i>Convolvulus erubescens</i>	Pink Bindweed			X	
Cyperaceae	<i>Cyperus eragrostis</i>	Umbrella Sedge	*		X	
Euphorbiaceae	<i>Ricinus communis</i>	Castor Oil Plant	*		X	
Fabaceae (Caesalpinioideae)	<i>Senna septemtrionalis</i>	Arsenic Bush	*		X	
Fabaceae (Faboideae)	<i>Glycine tabacina</i>	Variable Glycine		X	X	
Fabaceae (Mimosoideae)	<i>Acacia falciformis</i>	Broad-leaved Hickory			X	
Juncaceae	<i>Juncus usitatus</i>	Common Rush			X	
Lamiaceae	<i>Plectranthus parviflorus</i>				X	

Family	Scientific Name	Common Name	Exotic	CPW	RFEF	Exotic Dominated Grassland
Lomandraceae	<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	Wattle Matt-rush			X	
Malvaceae	<i>Sida rhombifolia</i>	Paddy's Lucerne	*	X	X	X
Myrtaceae	<i>Eucalyptus amplifolia</i>	Cabbage Gum			X	
Myrtaceae	<i>Eucalyptus moluccana</i>	Grey Box		X	X	X
Myrtaceae	<i>Eucalyptus tereticornis</i>	Forest Red Gum		X	X	X
Myrtaceae	<i>Melaleuca decora</i>				X	X
Myrtaceae	<i>Melaleuca styphelioides</i>	Prickly-leaved Tea Tree			X	
Oleaceae	<i>Olea europaea</i> subsp. <i>cuspidata</i>	African Olive	*		X	
Oxalidaceae	<i>Oxalis perennans</i>			X	X	
Pittosporaceae	<i>Bursaria spinosa</i>	Native Blackthorn		X	X	
Poaceae	<i>Axonopus fissifolius</i>	Narrow-leaved Carpet Grass	*			X
Poaceae	<i>Briza subaristata</i>		*		X	
Poaceae	<i>Bromus catharticus</i>	Prairie Grass	*		X	
Poaceae	<i>Chloris gayana</i>	Rhodes Grass	*	X		
Poaceae	<i>Chloris truncata</i>	Windmill Grass		X		
Poaceae	<i>Cynodon dactylon</i>	Common Couch				X
Poaceae	<i>Echinopogon ovatus</i>	Forest Hedgehog Grass			X	
Poaceae	<i>Entolasia marginata</i>	Bordered Panic			X	
Poaceae	<i>Eragrostis brownii</i>	Brown's Lovegrass			X	X
Poaceae	<i>Eragrostis curvula</i>	African Lovegrass	*			X
Poaceae	<i>Eragrostis leptostachya</i>	Paddock Lovegrass			X	
Poaceae	<i>Eriochloa pseudoacrotricha</i>	Early Spring Grass				X
Poaceae	<i>Megathyrsus maximus</i>		*		X	
Poaceae	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass		X		
Poaceae	<i>Paspalum dilatatum</i>	Paspalum	*	X	X	X
Poaceae	<i>Paspalum distichum</i>	Water Couch			X	
Poaceae	<i>Setaria parviflora</i>		*	X		X
Poaceae	<i>Themeda triandra</i>				X	

Family	Scientific Name	Common Name	Exotic	CPW	RFEF	Exotic Dominated Grassland
Rubiaceae	<i>Asperula conferta</i>	Common Woodruff			X	
Solanaceae	<i>Cestrum parqui</i>	Green Cestrum	*		X	
Solanaceae	<i>Solanum linnaeanum</i>	Apple of Sodom	*			X
Typhaceae	<i>Typha orientalis</i>	Broad-leaved Cumbungi			X	
Verbenaceae	<i>Verbena bonariensis</i>	Purpletop	*		X	X





Legend



Subject Site



Watercourse

Image Source:
Image © Nearmap (2021)
Dated: 12/01/2021



Coordinate System: MGA Zone 56 (GDA 94)

cumberland
ecology

0 100 200 300 400 m

Figure 1. Location of the subject site

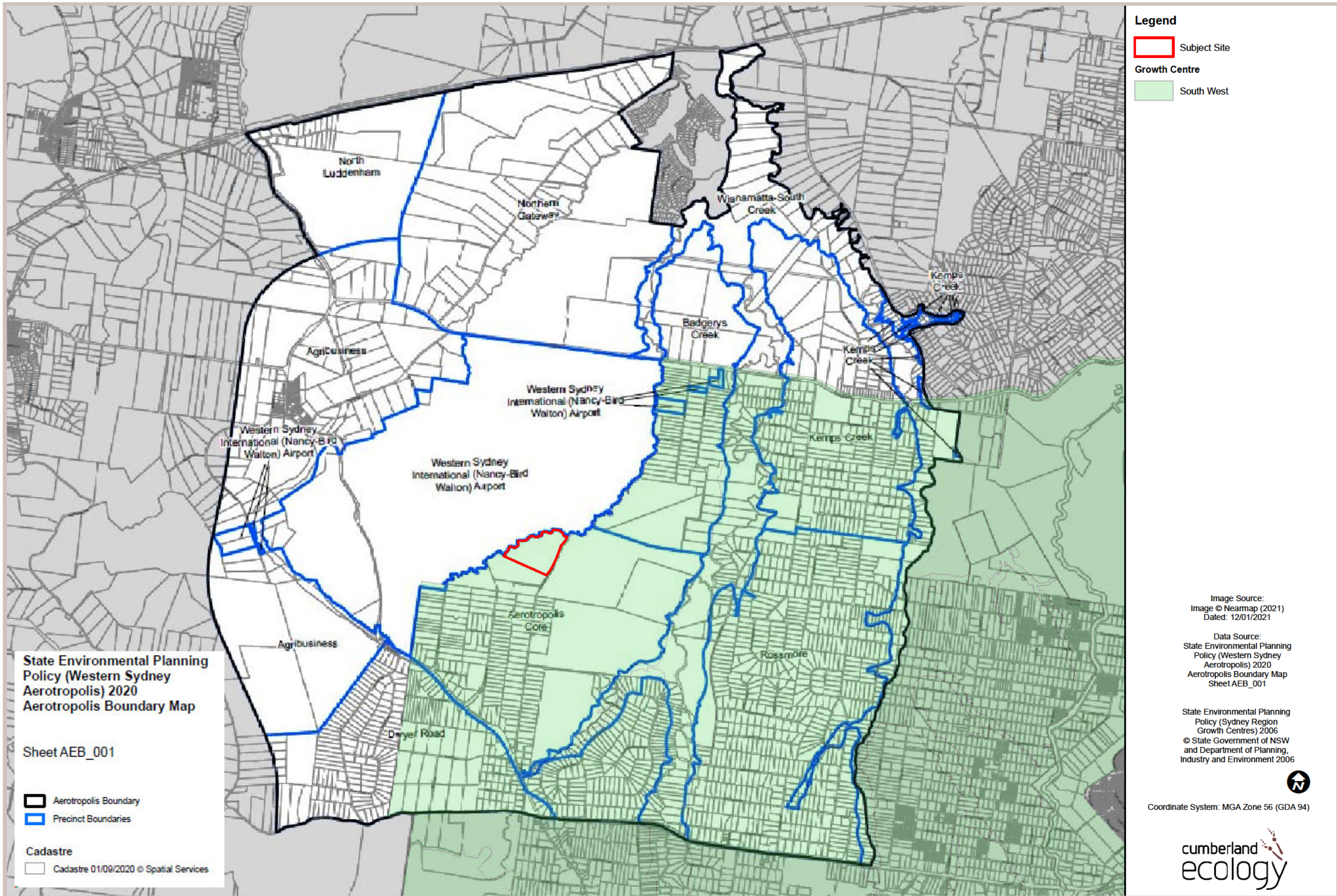


Figure 2. The location of the subject site within the Aerotropolis Boundary Map and the Sydney Region Growth Centres SEPP



Figure 3. Vegetation communities found within the subject site

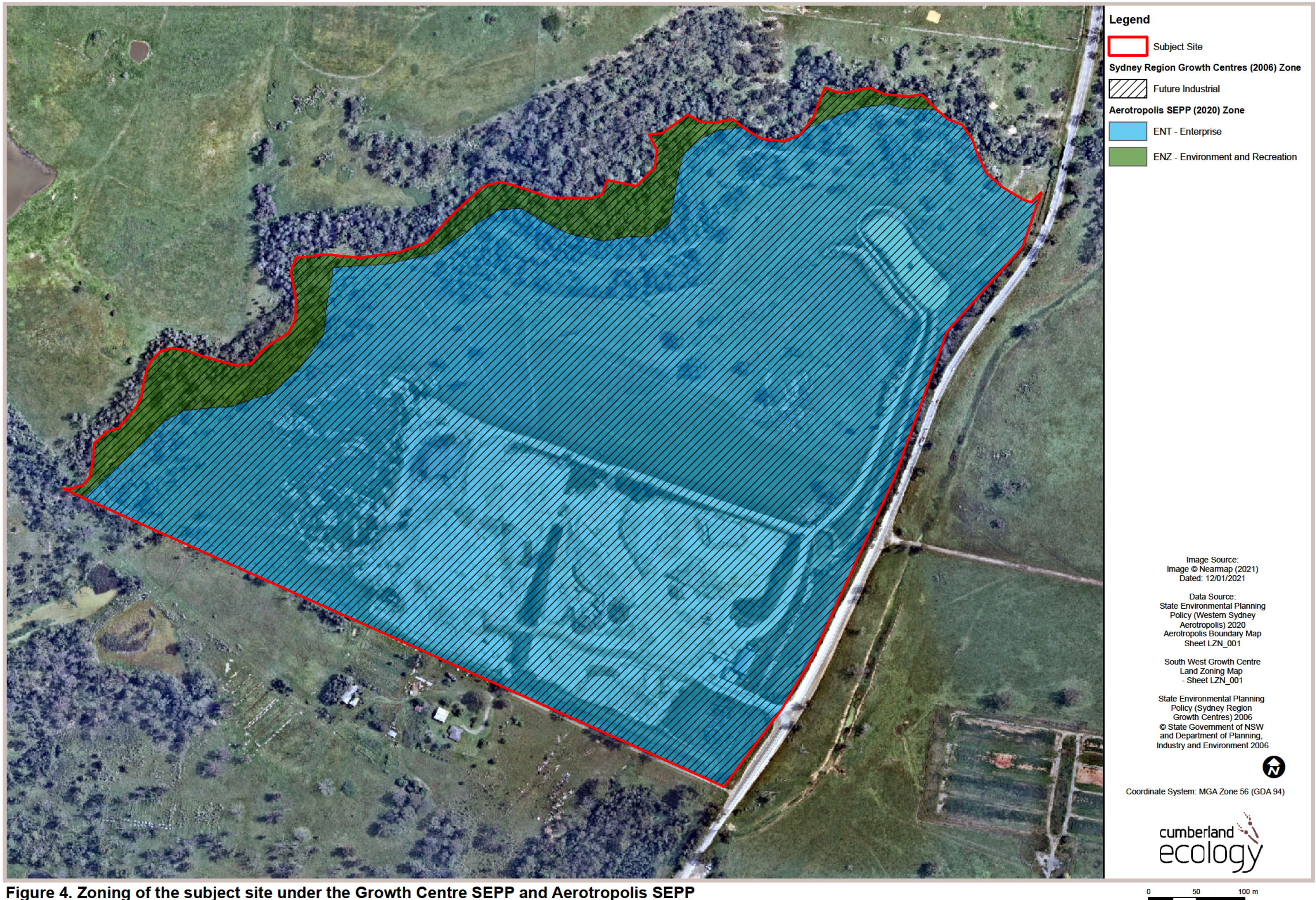
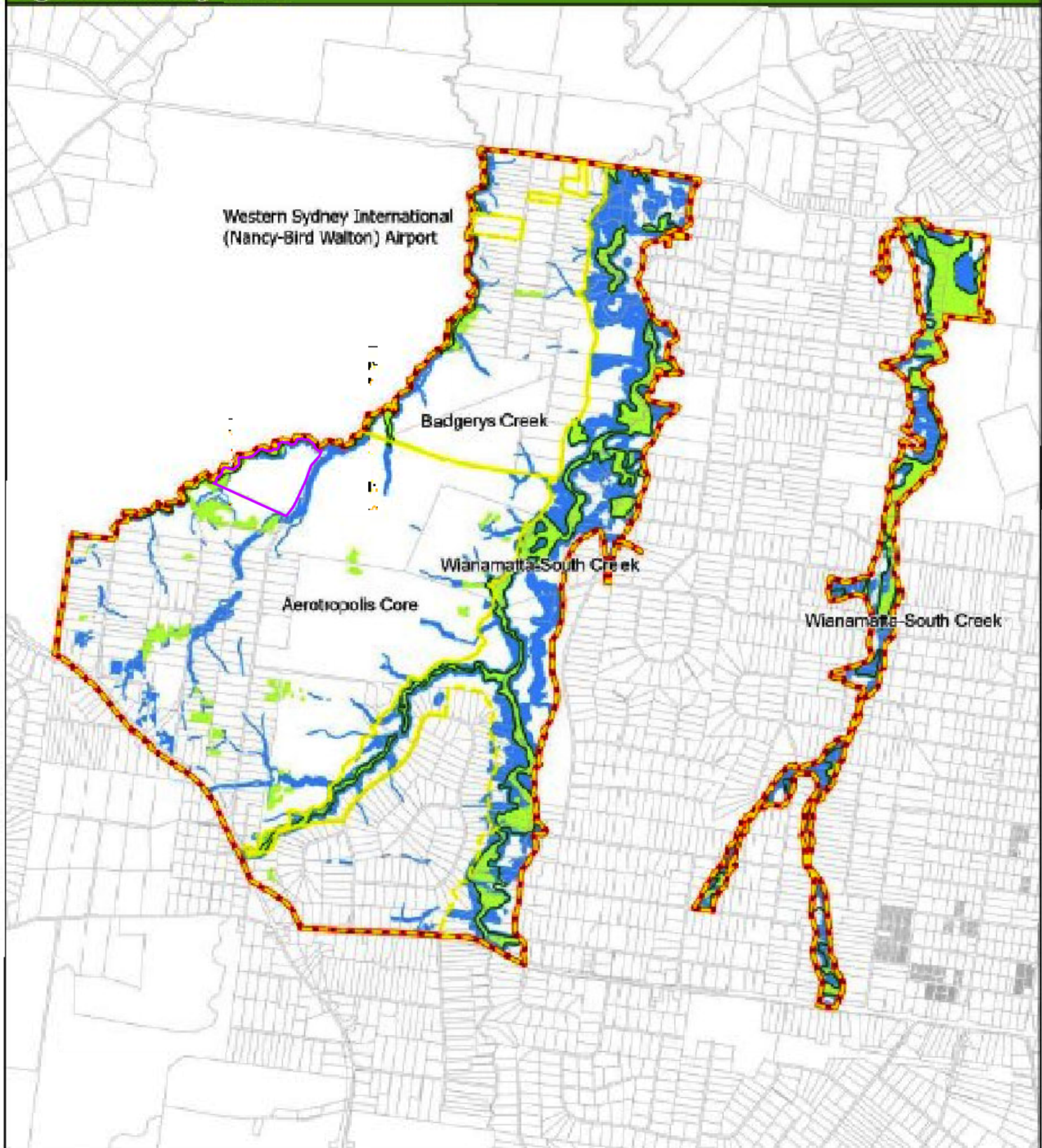


Figure 4. Zoning of the subject site under the Growth Centre SEPP and Aerotropolis SEPP

High Biodiversity Value



- Legend**
- Study Area
 - Precinct Boundaries
 - Cadastre
 - Existing High Biodiversity Value
 - Proposed High Biodiversity Value (Validated ENV)
 - Proposed High Biodiversity Value

0 375 750 1,500
Metres

Datum/Projection:
GDA 1994 MGA Zone 56



Prepared by: KS Date: 28/10/2020

Legend

- Subject Site

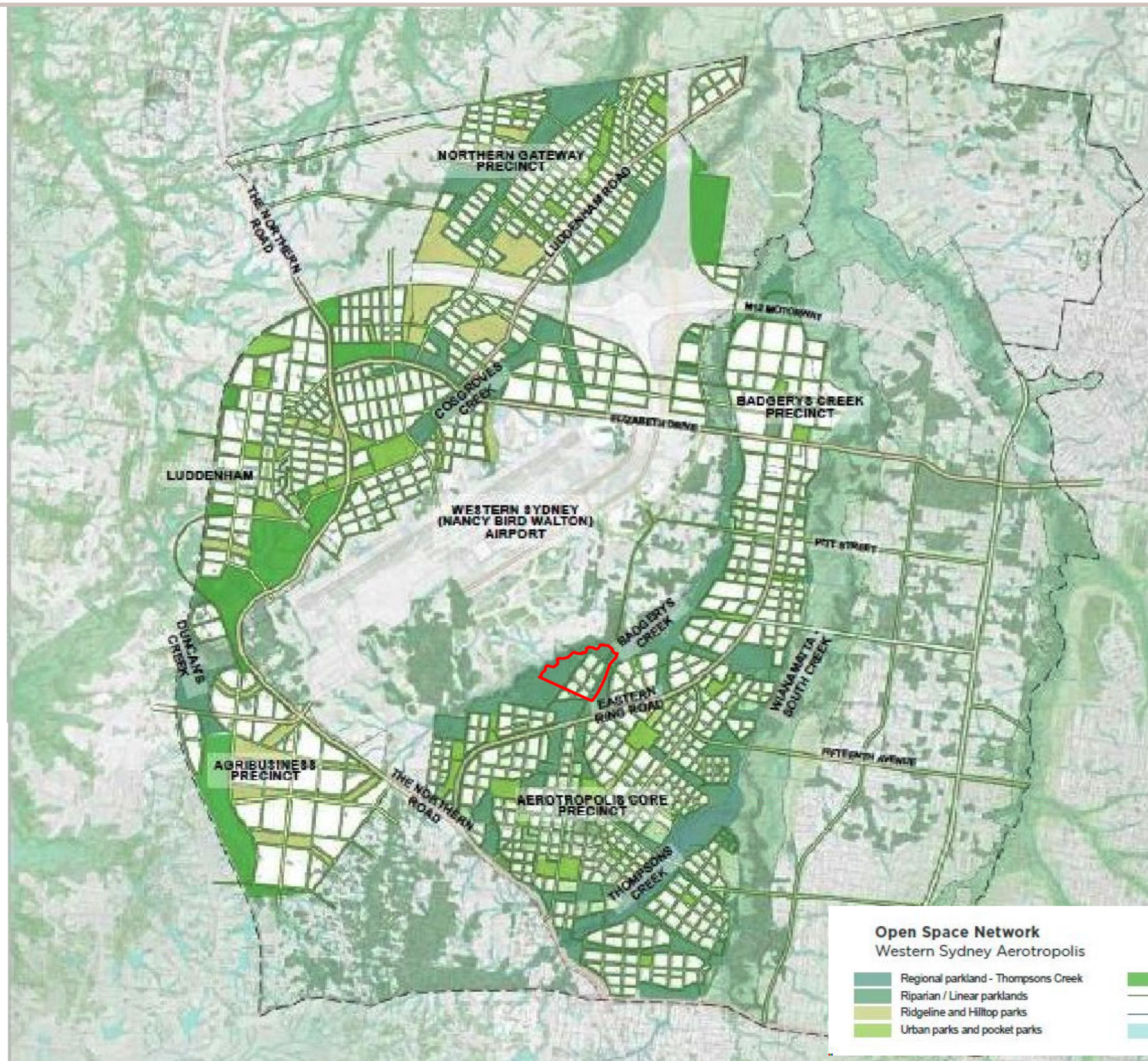
Coordinate System: MGA Zone 56 (GDA 94)

Image Source:
Biodiversity Consistency Assessment
- Draft Western Sydney Aerotropolis
(Aerotropolis Core, Badgerys Creek
and Wianamatta-South
Creek) Precinct Plan

cumberland
ecology

Figure 5. Proposed increase of High Biodiversity Values mapping within the subject site

0 450 900 1,350 1,800 m



Legend

Subject Site

Image Source:
Draft Aerotropolis Precinct
Plan (November 2020)
Western Sydney Planning
Partnership

Coordinate System: MGA Zone 56 (GDA 94)

cumberland
ecology

0 500 1,000 1,500 2,000 m

Figure 6. Open Space Network within the subject site under the Aerotropolis Core Precinct Plan



Appendix B



21 February, 2021

Kim Samel
Elton Consulting
Level 27, 680 George Street
Sydney NSW 2000

Western Sydney Aerotropolis

Visual analysis of effects of the proposed Precinct Plan on Elford Group land, 320 Badgerys Creek Road, Badgerys Creek

Dear Kim,

Thank you for the opportunity to be of assistance to your clients, the Elford Group, owners and operators of an existing extraction and waste rock re-cycling facility in Badgerys Creek Road, which is within land to become part of the Aerotropolis Core Precinct associated with the Nancy Bird Walton Western Sydney Airport, currently under construction to its north-west.

RLA (Richard Lamb and Associates (RLA)) have been appointed to comment on the implications of the Hassell Urban Design and Landscape Plan Report (UDLPR), the technical reports that are said to underpin it and the Draft Aerotropolis Precinct Plan (the DAPP), on the Elford Group site (The Site).

I am a professional consultant and the principal of RLA, specialising in visual impacts and non-indigenous landscape heritage assessment. I have had 30 years' experience in these areas and have appeared as an expert witness in matters predominantly concerning visual impacts and landscape heritage in over 275 cases in the Land and Environment Court of NSW. My CV can be viewed or downloaded from the link on the home page of the RLA website at www.richardlamb.com.au.

The Site is currently an extraction and re-cycling site on the west side of Badgerys Creek Road. Badgerys Creek runs along part of the western and northern boundaries of The Site. I understand that this use is intended to continue into the near future.

The current visual character of the site is partly open and grassy, but predominantly occupied by materials handling areas, stockpiles, dams and overburden areas. A thin band of riparian vegetation associated with Badgerys Creek is visible from the street frontage of the site along

the western and northern boundary. A much wider area of vegetation is present beyond the creek band, in particular to the north-west of The Site.

The Site is destined to be part of the Enterprise Zone of the Precinct. Built form associated with this intended use includes buildings on only part of the site, according to the Open Space Typology Plan, at Page 192 of the UDLPR. This potential layout is shown on various other plans, for example a conceptual plan, showing elements of the open space network on Page 130 of the UDLPR. The overall plan for the site is shown on many other documents, including the front page of the UDF. It would be reasonable to assume on that basis that the intended use and layout of built development, as well as adjacent open space, is fixed, as development of the relevant precinct has Priority 1 in the time of establishment of the project.

Relevant to my expertise, the questions to be asked about the intended use of the Elford Site, are why a large proportion of the site is intended to become open space of one form or another, as well as what the justification may be for confining development to the eastern part of The Site.

The view across what is the residual character of original land, that may formerly have carried open woodland vegetation, toward a backdrop of riparian and other vegetation, is a common one in the vicinity, to the north, north-east and south of The Site. The contribution made by the existing riparian vegetation along the relevant section of Badgerys Creek on the margins of the site to the apparent backdrop of vegetation in views from the road, is minor, in reality.

Throughout the documentation, there is a clear and appropriate emphasis placed on providing both scenic and cultural connections to the landscape and to country, in other words to both non-indigenous and indigenous people. It is a refreshingly inclusive concept. Views of native vegetation, creeks and the contribution of water to views are recognised as a major organising principle. No objection is raised to this.

However, there is no technical basis to the organising principle in relation to views. There are no technical reports to support it, no definitions to define it and there appear to be inconsistencies in the draft mapping that justify the land use decisions made or the placement of boundaries on The Site. There are definitions in the Glossary to the UDLPR but they do not include definitions of any terms in relation to views.

The Site is ultimately to be reduced in size and surrounded by parkland, that is constructed. That is, the parkland does not exist in the current environment, either physically or visually. The parkland is to be designed landscape, with some references to the natural environment. It is hard to see how this is authentic to either the non-indigenous concepts of landscape aesthetics, or to country for indigenous people. Beyond that it is not for me to comment on indigenous values and I leave that to those with more appropriate expertise.

The north-western part of the site, between the area designated for the footprint of buildings and the Creek, is to become future illuvial parkland. For this to occur, on what is now an extraction site, would require the owners to rehabilitate and then presumably to relinquish the land and for it be made into a quasi-natural environment with the appearance of illuvial woodland. The identification of the constraints on the land seems to have arisen from

incorrect mapping of this part of the site as having more natural vegetation than is correct, and also as undisturbed soil, which cannot be correct on any reading. The undisturbed soil network is shown on Page 79 of the DAPP. A significant part of the undisturbed soil shown mapped is under the existing extraction site, land affected by it or will be disturbed by future mining for sand resources. It does not have significant native vegetation. The resource is over-estimated, possibly leading to an incorrect assumption about the natural values of the site.

On the south and east of The Site, the land is to become linear parkland along tributary creeks. In the real world, this creek does not exist. It appears to be a drainage swale along the boundary of former Ingham land east of The Site. The new creek corridor has to be constructed, partly to create a detention basin for storm water. It is connected to a linear park and a pocket park to the south of the site. Other so-called ephemeral creeks, or potential drainage lines, are mapped (eg. creeks running south-east on the Elements of the Open Space Framework plan, on Page 130 of the UDLPR) that are clearly conceptual, as they are linear and follow the road network.

On the Scenic and Cultural Connections map in the DAPP there are several green lozenge-shaped areas with a green hatched boundary, that are identifying existing remnant vegetation, 'framing long views'. An oval-shaped green area is over The Site. As there are no technical studies from which this analytical plan is presumably derived, there is no explanation as to what the long views are, how they are framed or from where they are experienced. There is one identified view from the intersection of the existing Badgerys Creek Road and the future Eastern Ring Road, however this is not pointing toward The Site, but rather towards vegetation in adjacent land south -west of the Site. The potential view is theoretical in any event, as there are proposed building footprints directly in the view line. The vegetation that is in the potential view would not be visible in the real world, as buildings in the foreground complying with the heights envisaged would block the view of vegetation situated on land between a viewer and the vegetation, as it is situated on land that is only slightly lower in elevation than the view point on the roads.

A similar observation can be made about the likely potential for there to be views across The Site from future development areas to the south and south-east, including hilltop parks and linear ridge-line parkland in the vicinity.

My assessment of how views fit into the Precinct Plan structure at the smaller scale than general objectives and generalisations in planning objectives is that they appear to have no technical basis and are in some cases arbitrary. As a result, the performance outcomes in relation to views cannot really specify quantitative controls for individual precincts or parts of precincts such as setback distances, at the precinct plan level. They are generalised, idealistic and therefore, at the individual precinct scale or below at the individual site level, may be impractical. In addition, the general objectives and performance outcomes would have to be tested at the small scale for any precinct, as what the built form will do to what is viewed is obviously a relevant consideration. This does not appear to have been considered in the DAPP.



To test these assumptions, I visited The Site, made observations of the views to and from it and I spent some time in the immediate vicinity trying to work out what the scenic and cultural overlay that is over the site in the DAPP might mean.

This showed that the green oval shaped area is totally abstract and does not relate as far as I could determine to any specific items on the site. Other sites on the same side of the road in the vicinity have a similar backdrop of vegetation seen at some distance, most of which is not under a green oval with green outline, like the one over the site and some adjacent areas.

The reference to 'long views' appears to relate to the visibility of riparian or other vegetation, seen at some distance, rather than the composition of a scene in terms of painterly or formal aesthetics. The locations from which potential views were identified may have been read off aerial images and topography maps rather than being confirmed by ground-truthing. This is confirmed to some extent by the absence of any surface evidence of the routes of ephemeral creeks that are mapped in various locations. They may be theoretical or potential flow paths, but most have no visual presence.

Vegetation in the riparian strip along Badgerys Creek and beyond it would theoretically be seen as a backdrop in views from the higher land relatively close to and east of The Site. It would not frame the view but be a backdrop that is indistinguishable from vegetation backing onto other land adjoining The Site. However, any number of potential future changes to the environment would be likely to remove that potential, including buildings on sites between a viewer and the Creek, at almost any distance, including buildings on The Site. The setbacks proposed between buildings and the creek would not have any positive effect with regard to retaining a backdrop of trees in the views, as the vegetation would not appear to be as high as buildings and even low buildings in the foreground would block views to items behind. To retain a view from a future road to the east toward the creek, would require dedicating a boulevard of very substantial width and prohibiting development of almost any kind in the view line. That is clearly not intended and no specific view lines over or through the site have been identified from places east of The Site, notwithstanding these are shown in many other locations.

The location of the oval on the map may in that regard reflect there being a possibility of a view down a future road from higher land east of the site. The future road alignments are marked on the precinct plan and the green oval is roughly on the axis of one potential view from a proposed square hilltop park, which appears to be on former Ingham land east of The Site. The likelihood, however, of there being a view on that axis in the real world, is minimal, as there are future building envelopes in the foreground and there is only a narrow road on the axis.

As noted above, from view points closer to The Site, for example on the proposed Eastern Ring Road, buildings on the site would block any views of the vegetation behind, no matter what the setback between the rear of the development area and the riparian or alluvial parkland was to be. The same could be said for the heights of buildings on the site. That is, the ultimate heights would be irrelevant to retaining a view of the vegetation behind, as even



buildings lower than those indicated in the DAPP would block out the view. The draft heights would clearly require reconsideration.

There would therefore be no framed views from the existing road or future roads. There are many similar areas in the immediate vicinity and areas of remnant vegetation viewed at a distance that are not mapped as having similar scenic and cultural values.

My observations are that the documentation with regard to views is abstract, theoretical and idealised. It is not supported by technical studies. As such, it does not provide explanations or criteria to support the shape and form of the development area layout or of controls such as heights and setbacks on the subject site, which are therefore premature and unsupportable on visual grounds.

Yours sincerely

A handwritten signature in black ink that reads 'Richard Lamb'.

Dr Richard Lamb

Richard Lamb & Associates



Appendix C



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Our Reference: KA-113

The Trustee for Elford Settlement Fund
c/o Elton Consulting Group Pty Ltd
Kim Samuel
Leve 27, 680 George Street
Sydney NSW 2000

11th March 2021

Dear Mr Samuel,

Re: Heritage Advice on the Western Sydney Aerotropolis Draft Precinct Plan - 320 Badgerys Creek Road, Badgerys Creek

Kayandel has been commissioned by Elton Consulting Group Pty Ltd on behalf of The Trustee for Elford Settlement Fund to prepare a letter to identify the potential Aboriginal heritage opportunities and risks to the future development of 320 Badgerys Creek Road, Badgerys Creek (Subject Property) (see Figure 1) following the exhibition of draft precinct plans for the various precincts under the *State Environment Planning Policy (Western Sydney Aerotropolis) 2020 (Aerotropolis SEPP)*.

As the Subject Area is fully contained within the land subject to the *Aerotropolis SEPP* (commenced 1st October 2020), it is subject to the relevant precinct plans. The *Western Sydney Development Control Plan 2020 – Phase 1 (Western Sydney DCP 2020 – Phase 1)* shows the Subject Area falling within the draft Aerotropolis Core Precinct Plan, currently on exhibition.

It is understood that this letter will form part of a public submission on the draft Aerotropolis Core Precinct Plan.

1. Statutory Context

1.1. State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Under the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Growth Centre SEPP)*, the entirety of the Subject Property has been zoned as “Future Industrial” (refer to Figure 2).

1.2. Aerotropolis SEPP

The majority of the Subject Property has been zoned as ‘ENT – Enterprise’, with a small area along Badgerys Creek zoned as ‘ENZ – Environment and Recreation’ under the *Aerotropolis SEPP* (refer to Figure 3).

Heritage (including Aboriginal heritage) is addressed in Clause 28 and Schedule 2 of the *Aerotropolis SEPP*. The clause states that development consent is for the following:

- a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—
 - i. a heritage item,
 - ii. an Aboriginal object,
 - iii. a building, work, relic or tree within a heritage conservation area,

- b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 2 in relation to the item,
- c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,
- d) disturbing or excavating an Aboriginal place of heritage significance,
- e) erecting a building on land—
 - i. on which a heritage item is located or that is within a heritage conservation area, or
 - ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,
- f) subdividing land—
 - i. on which a heritage item is located or that is within a heritage conservation area, or
 - ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

The *Aerotropolis SEPP* does not identify the areas of Aboriginal heritage sensitivity identified by Extent (2020) (see Figure 8) to be “heritage conservation areas”.

For the purpose of reading Clause 28, the areas of Aboriginal heritage sensitivity are not considered to be an “Aboriginal object”. Clause 5 of the *National Parks and Wildlife Act, 1974* defines “Aboriginal object” to be:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

1.3. Western Sydney Aerotropolis Development Control Plan 2020 –Phase 1

Section 6 of the *Western Sydney Aerotropolis Development Control Plan 2020 –Phase 1* (*Western Sydney Aerotropolis DCP – Phase 1*) deals with “Heritage and Cultural Conservation” and aims to ensure that the significant elements of the past are appropriately managed and respected by new development. Heritage conservation does not prevent change but rather responds to different constraints and opportunities.

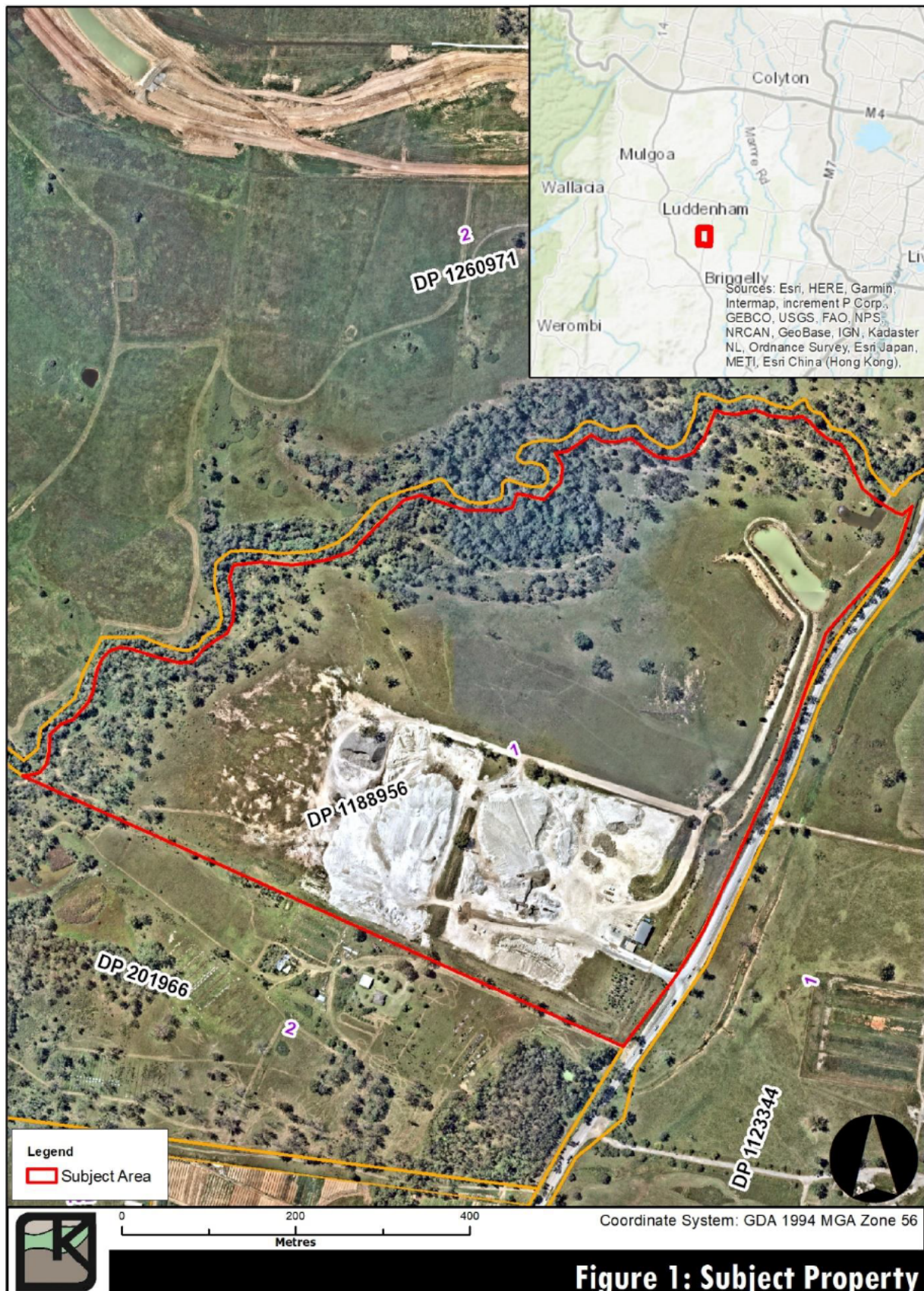
Section 6.3 “Aboriginal Cultural Heritage” of the *Western Sydney Aerotropolis DCP* states that it will be necessary for an “initial investigation” to be undertaken to determine if the proposed development or activity occurs on land potentially containing an item of Aboriginal archaeology or is within an area of cultural significance to Aboriginal peoples. If any of the above features apply then the relevant Aboriginal community must be consulted, as part of the initial investigation to ensure that the potential for the land to contain Aboriginal sites, places or relics has not been overlooked by previous studies.

The Performance Outcomes for Aboriginal cultural heritage are:

PO1	Development does not result in the demolition or removal of or damage to the Aboriginal heritage place or object.
PO2	Development retains, conserves and does not detract from the features and values of the Aboriginal heritage place or object.
PO3	Development is compatible with the Aboriginal heritage significance of the place.
PO4	Development is designed to care for and connect to Country.
PO5	New development adjacent to or within the vicinity of an item or place of Aboriginal heritage significance should have no impact on that item or place.

Table 1: Western Sydney Aerotropolis DCP – Phase 1 Aboriginal Culture and Heritage Performance Outcomes

A Phase 2 DCP will be prepared for the future precincts.



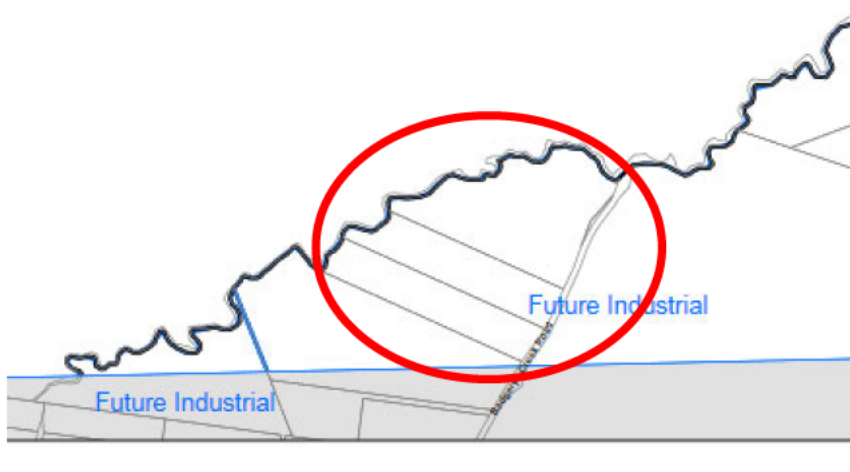


Figure 2: Growth Centre SEPP South West Growth Centre Land Zoning Map. The Subject Property is circled red.

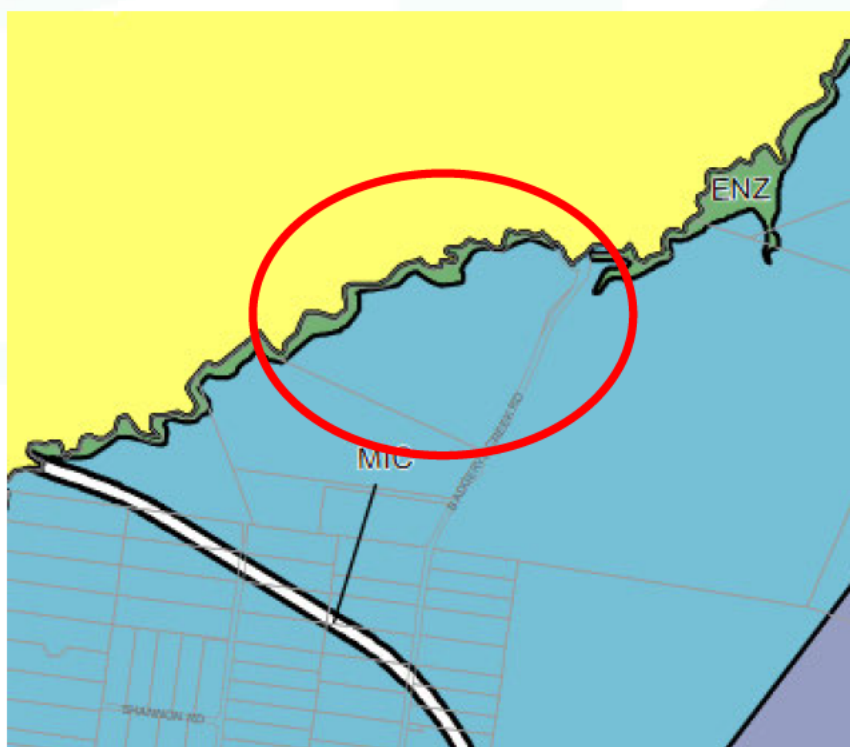


Figure 3: Aerotropolis SEPP Land Zoning Map. The Subject Property is circled red.



Figure 4: Layout and Structure Plan from Hassell (2020, p. 8). The Subject Property is circled red.

2. Previous Archaeological Investigations

The locations and details of Aboriginal sites are considered culturally sensitive information. [REDACTED] recommended that this information, including the AHIMS data and GIS imagery, is removed from this letter if it is to enter the public domain.

The property has been included in the following studies:

- Brayshaw McDonald (1994);
- NOHC (1997);
- AHMS (2014a) (now known as Extent);
- AHMS (2014b); and,
- Extent (2020).

2.1. NOHC (1997)

NOHC (1997) undertook a broadscale Aboriginal heritage assessment for the Environmental Impact Assessment (EIA) prepared to explore options for the location of a second Sydney airport, and included a field survey of the subject property.

NOHC (1997) identified the following Aboriginal sites within the subject property (refer to Figure 6):

- B12 (AHIMS #45-5-2703) – isolated stone artefact;
- B51 (AHIMS #45-5-2695) – a scarred tree;

- B52 (AHIMS #45-5-2694) – a scarred tree; and,
- B58 (AHIMS #45-5-3096) – open camp site.

As part of the broadscale Aboriginal heritage assessment, NOHC (1997, pp. 5-66) assessed the major fluvial corridors (i.e. Badgerys Creek) as having moderate or high archaeological potential (refer to Figure 5). It was noted that due to being a broadscale assessment “the potential archaeological deposit assessment may not match the results of a subsurface archaeological investigation”.

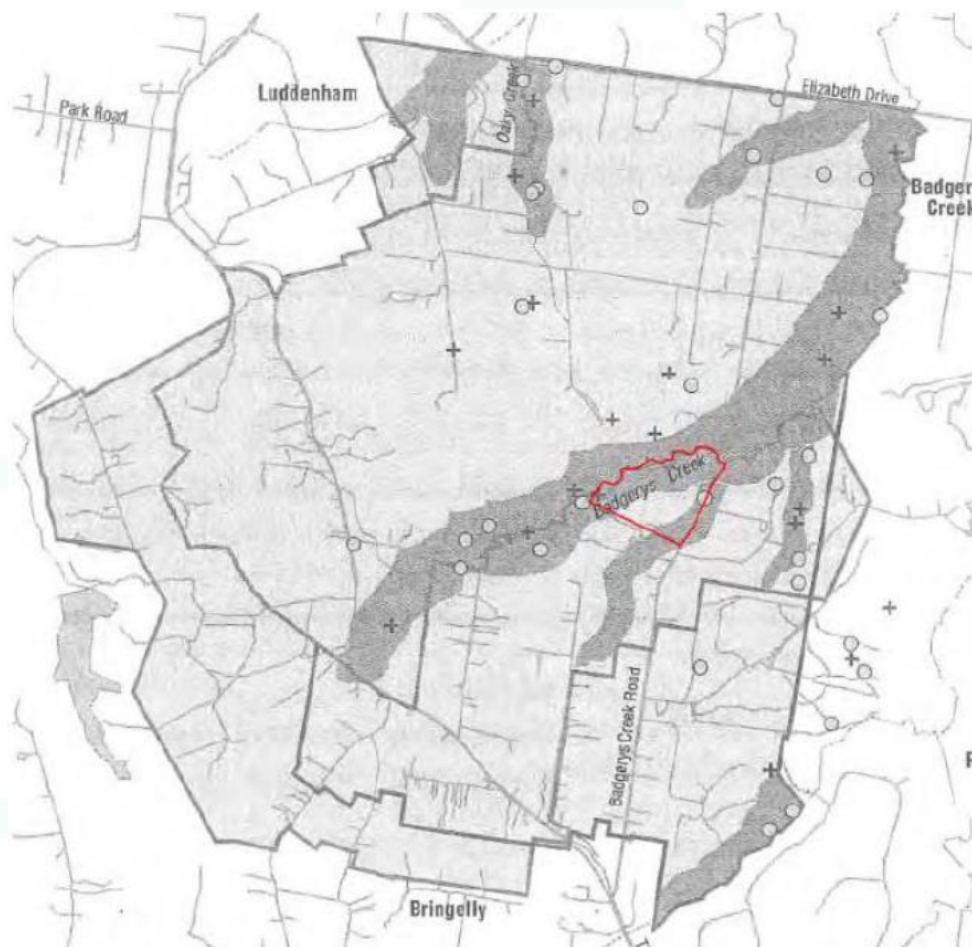


Figure 5: The areas of moderate or high archaeological potential (shaded dark grey) within the NOHC (1997) Badgerys Creek study area. The subject property is indicated in red (sourced from NOHC (1997, Figure 5.3))

2.2. AHMS (2014a, 2014b)

AHMS (2014a, 2014b) (now known as Extent) undertook a site specific assessment for an approved quarry and a solid waste resource recovery, which did not include a subsurface archaeological investigation.

While AHMS (2014b) could not relocate either AHIMS #45-5-2703 or AHIMS #45-5-3096 at the time of the survey, there was no evidence of substantial ground disturbance in the registered locations, and it was considered likely that the artefacts remain present.

AHMS (2014b, p. 48) undertook consultation with the field representatives regarding AHIMS #45-5-2694, whereby it was concluded that the scar was unlikely to be the result of cultural modification, as the uneven

scar is more indicative of branch detachment or bushfire (Long, 2005). Further investigation would be required to be conclusive in this case.

AHMS (2014b, p. 48) also undertook consultation with the field representatives regarding AHIMS #45-5-2695, where it was concluded that the scar was not indicative of cultural modified, as it is less than 60 years old, and grew after traditional cultural practice largely ceased in the region.

No previously unrecorded Aboriginal sites were identified as a result of the AHMS (2014b) survey.

AHMS (2014b, p. 46) determined that as most of the subject property consists of low-lying creek flat or flood plain, artefact densities are likely to be low. In addition, clearing and agricultural use of the land, and localised erosion is likely to have disturbed much of the (generally shallow) soil profile, reducing the integrity of any archaeological resource present.

AHMS (2014b, p. 46) assessed that archaeological potential was likely to be higher in that part of the subject property that falls within 100m of Badgerys Creek (see Figure 7). White and McDonald (2010) reviewed archaeological data from investigations in other parts of the Cumberland Plain, which indicated that archaeological potential was higher in proximity to higher order watercourses, such as Badgerys Creek (5th order). Artefact densities appeared to be higher within 50-100m of 4th order watercourses. Within this zone, elevated areas such as terraces, are known to have higher potential. The area of moderate archaeological potential in Figure 7 was mapped based on the location of the terrace/levee and distance to Badgerys Creek.

AHMS (2014a) recommended that an Aboriginal Heritage Impact Permit (AHIP) be lodged with Office of Environment and Heritage (OEH) for AHIMS #45-5-3096 that would be impacted by the approved quarry and a solid waste resource recovery site.

Kayandel is aware that AHIP C0000605 was issued by OEH's Greater Sydney office to Elford Group on the 9th October 2014 (valid for 3 years) for the "Badgerys Creek Quarry and Inert Waste Landfill", which permitted harm to certain Aboriginal objects through proposed works. However, Kayandel is not aware of the footprint of the approved AHIP. It should be noted that the AHIP has now expired, and if impact/harm will occur to an Aboriginal site, it will be necessary to lodge a new AHIP application with Heritage NSW (previously OEH).

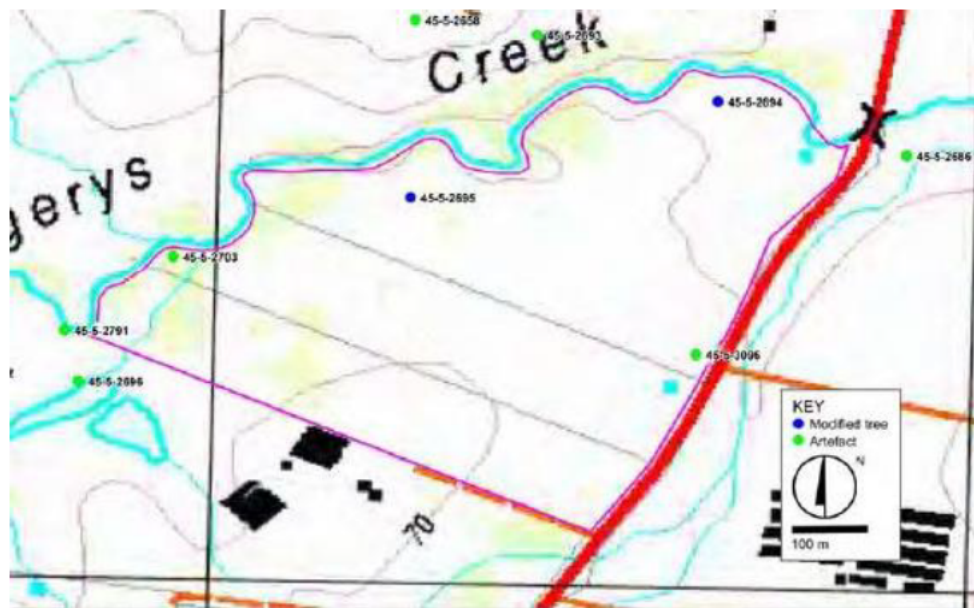


Figure 6: Details of AHIMS Search results, Subject Property outlined in pink (sourced from AHMS (2014b, Figure 16))

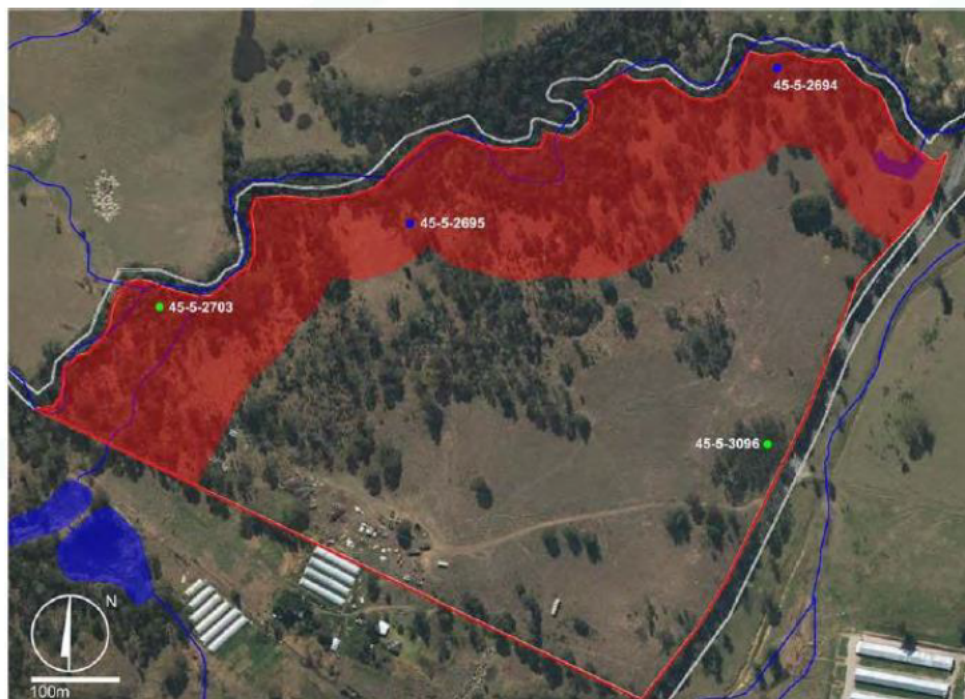


Figure 7: The four registered sites (blue and green points) and the area of moderate archaeological potential (shaded red) (sourced from AHMS (2014b, Figure 36))

2.3. Extent (2020)

Extent (2020) prepared an Aboriginal and non-Aboriginal Cultural Heritage Assessment for the initial precincts within the Western Sydney Aerotropolis, which included initial high-level desktop analysis designed to guide the precinct planning and highlight key heritage issues and areas of sensitivity.

No field work was undertaken by Extent as part of preparing their assessment.

Kayandel is aware that the assessment undertaken by Extent was used to inform the *Western Sydney Aerotropolis Urban Design and Landscape Report* (Hassell, 2020) which has formed a significant direction and framework for the Aerotropolis Core Precinct Plan.

A review of the Extent (2020) has identified that the report does not consider Extent's previous investigations of the Subject Property (AHMS, 2014a, 2014b).

The recent assessment of Aboriginal archaeological sensitivity does not appear to consider historic imagery, which showed that by 1947, the Subject property "had been almost entirely cleared of large vegetation, apart from a narrow corridor along Badgerys Creek and a few scattered trees across the property" (AHMS, 2014b, p. 15).

Extent (2020, p. 187) made the following recommendation regarding culturally modified trees (i.e. AHMS #45-5-2695 and AHMS #45-5-2694):

Development should be avoided by design in and around specific Aboriginal heritage site types, such as modified trees (carved or scarred) and grinding grooves.

However as previously stated (refer to Section 2.2), AHMS (2014b) in conjunction with the Aboriginal stakeholders assessed that the scar on AHMS #45-5-2695 was not indicative of cultural modified as the tree was less than 60 years old; and, that the scar on AHMS #45-5-2694 was unlikely to be the result of cultural modification, and that, noting that further investigation would be required to be conclusive in this case. Kayandel does not consider the above recommendation to be a constraint on development within the Subject Property, as AHMS (2014b) assessed both the modified trees identified by NOHC (1997) as unlikely to be the result of cultural modification.

On this basis of the previous tree removal within the Subject Property, Kayandel does not consider the below recommendation from Extent to be a constraint on development:

areas of remnant old growth vegetation and well-preserved creek corridors should be protected where possible (Extent, 2020, p. 188; Western Sydney Planning Partnership, 2020).

Extent (2020) does not appear to explain the process by which the Aboriginal archaeological sensitivity (refer to Figure 8) was determined. The high-level Aboriginal archaeological sensitivity mapping presented in Figure 8 shows the subject property as having very low to high archaeological sensitivity, with moderate to high sensitivity along Badgerys Creek. This is counter to Extent's (AHMS, 2014b) earlier site specific assessment of Aboriginal archaeological potential, where the terrace/levee landform to the east of Badgerys Creek was assessed as being moderate (see Figure 7).

A review of Figure 8 and Figure 7 indicates that the degree of the property that was assessed in 2020 to be sensitive is much greater as well.

In light of Extent's recent investigation being limited to a desktop assessment, Kayandel suggests that the that the property specific assessment of archaeological potential by AHMS (2014a, 2014b) take precedence.

The preliminary high-level recommendations presented in Extent (2020, p. 187) are a guide. Kayandel does not consider them to prevent the landowner from developing their property:

Development in any areas identified by Aboriginal stakeholders as places of identified cultural values should be avoided where possible. If development impacts in these areas are unavoidable, further investigations (e.g., ACHAR) should be undertaken.

In consideration of the Subject Property as being assessed to contain an area of Moderate archaeological sensitivity, Kayandel is on the opinion that the below recommendation by Extent (2020, p. 187) applies to the Subject Property:

Development in areas of Moderate sensitivity should seek to minimise impacts where possible. If development impacts are unavoidable, further investigations (e.g., ACHAR) should be undertaken.

Project specific archaeological investigation within property should be undertaken, as and when the landowner decides to develop, in order to assess the archaeological potential of the property. The results of the archaeological investigation should be used to support refining the extent of the archaeological sensitivity.

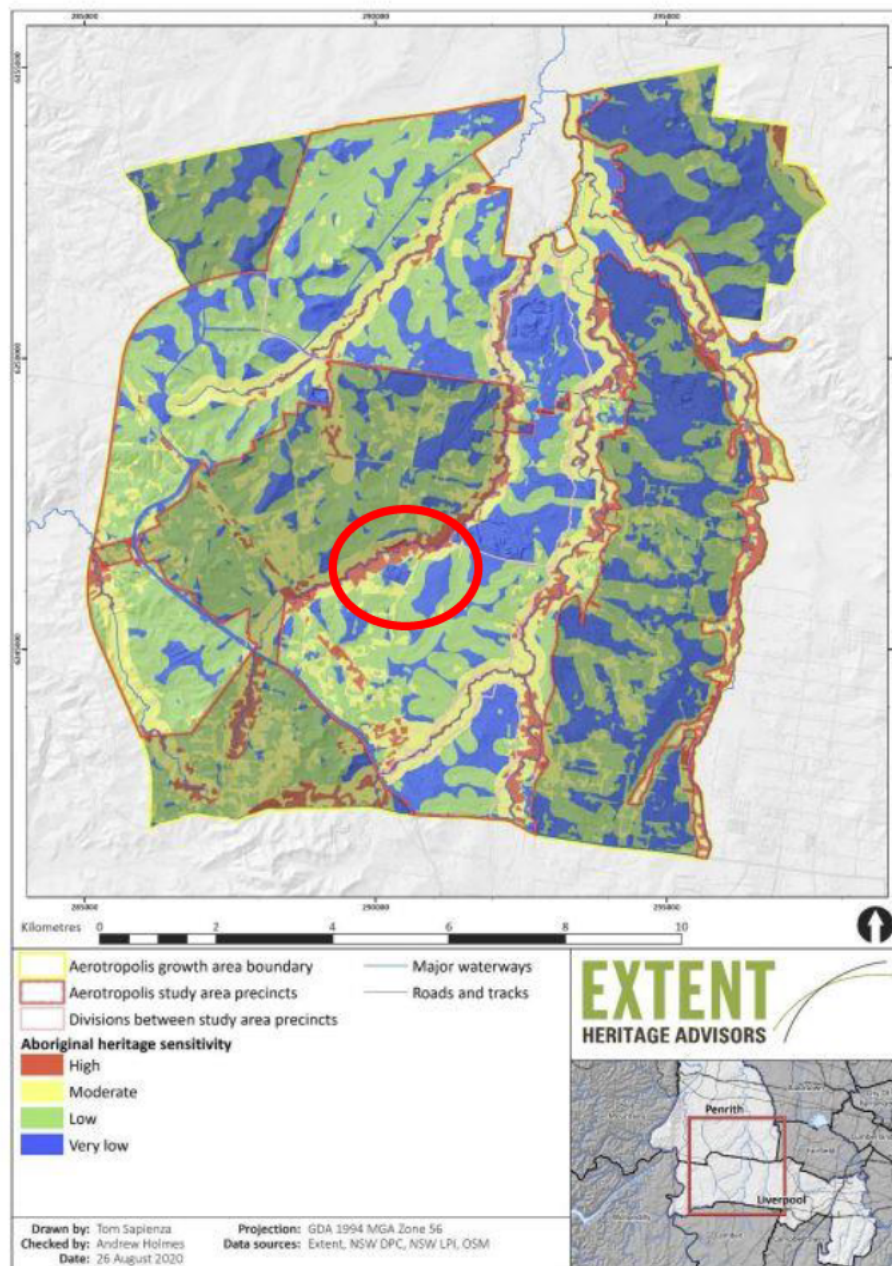


Figure 8: Aboriginal heritage sensitivity within the Aerotropolis (Subject Property circled in red) (sourced from Western Sydney Planning Partnership (2020, p. 5))

3. Aerotropolis Precinct Plan

One of the key drivers that underpins the framework for the draft *Aerotropolis Precinct Plan* is “Connecting to Country”. The process incorporated traditional understandings of Country to influence planning, design and landscape management. It is intended that precinct and sub-precinct design will be guided by Cultural Design Principals and local leaders in the Aboriginal community.

Within the Subject Property, the areas of moderate and high sensitivity identified by Extent were based on a desktop assessment, and does not consider Extent’s (AHMS, 2014b) earlier site specific assessment of

Aboriginal archaeological potential. The site specific assessment should take precedence over the desktop assessment.

While *Western Sydney Aerotropolis Urban Design and Landscape Report* (Hassell, 2020) has designed a layout and structure for future development. It should be subject to revision from consultation between Aboriginal community and developments. This consultation process should include the implementation of GANSW's (2020) *Draft Connecting with Country* framework, and archaeological investigations (including test excavation). The archaeological investigation would be used to characterise the nature and extent of any archaeological deposits that may be present, and could then be used to inform the layout of any future development.

This process would allow the development to meet the following objective for the "Aerotropolis Core, Badgerys Creek and Wianamatta-South Creek Precinct":

O23 Facilitate development of vibrant, accessible and exemplary green places with a strong sense of place and custodianship, and recognition and celebration of Aboriginal and European heritage spaces.

Section 2.2 "Place-based opportunities and constraints" of the draft *Aerotropolis Precinct Plan* makes the following statement:

retain Aboriginal heritage items and significant places in public open space and respect and enable conservation of non-Aboriginal heritage items

The above implies that **all** Aboriginal heritage items will be retained in public open spaces. This theoretically means that any Aboriginal heritage items that are identified will result in the alteration of a layout and structure plan to include a new public open space.

This is in counter to what Extent recommended, as previously noted, development can occur in areas of moderate archaeological sensitivity, subsequent to an archaeological investigation, and any required approvals from Heritage NSW. Development is not precluded from occurring within areas of moderate Aboriginal heritage sensitivity.

4. Conclusion

The areas of sensitivity identified by Extent were based on a desktop assessment, and does not consider Extent's (AHMS, 2014b) earlier site specific assessment of Aboriginal archaeological potential (see Figure 7). It is recommended that Extent (2020) be revised to consider their previous Aboriginal heritage sensitivity/potential assessment.

It is recommended that *Western Sydney Aerotropolis Urban Design and Landscape Report* (Hassell, 2020) and the precinct plan allow for revision of the layout and structure plan once archaeological investigations, as part of undertaking consultation with Aboriginal stakeholders, have verified the nature and extent of any archaeological deposits.

The results of any archaeological investigation would be used to inform any advice regarding the layout and structure of any future development, and how Aboriginal heritage items should be conserved.

It is therefore recommended that the draft *Aerotropolis Precinct Plan* be revised to take the above issues into consideration.

The recommendations presented in Extent (2020) do not prevent the landowner from developing the Subject Property within the areas of moderate and high sensitivity. Where future development will extend into the assessed area of moderate archaeological sensitivity, it will be necessary for further investigation to be undertaken in conjunction with consultation with Aboriginal stakeholders, as to assess whether archaeologically sensitive deposits or features would be impacted by the proposed layout of any future development. As part of consultation with Aboriginal stakeholders, they should be included in discussion regarding the layout of any future development, and how Aboriginal cultural values should be conserved.

The Performance Outcomes for Aboriginal cultural and heritage for the *Western Sydney DCP 2020 – Phase 1* (refer to Table 1) is inconsistent with Extent's recommendations regarding future development within areas of moderate and high sensitivity. It is recommended that the *Western Sydney DCP 2020 – Phase 1* to take the above issue into consideration.

Alternatively, this issue should be considered as part of the drafting of the Phase 2 DCP for the Aerotropolis Precinct.

Should you have any further questions regarding this matter, please do not hesitate to contact me on [REDACTED].

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Natalie Stiles'.

Natalie Stiles
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Associate Member International Council on Monuments and Sites

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