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1. Project Background

Narla Environmental Pty Ltd (Narla) was engaged by Gardner Wetherill (the proponent) to conduct an ecological assessment to evaluate potential biodiversity impacts resulting from the proposed works for car park upgrades at William Carey Christian School (Lot 10/-/DP1081938, 'the Subject Property', **Figure 1**). The proposed development involves the expansion of an existing car park and the demolition of a sports field and garden beds to accommodate the creation of 228 car spaces (**Appendix A**).

The central focus of the ecological assessment was within the proposed development area, henceforth referred to as the Subject Site (**Figure 1**). In addition, the western boundary of the Subject Property, bordering Cabramatta Creek, is mapped as 'environmentally sensitive land' as per the Liverpool Local Environmental Plan 2008 (LEP). Consequently, the ecological assessment aimed to validated the vegetation community and determine whether any impact would occur in areas designated as such on this mapping.

2. Site Description and Location

The Subject Property is approximately 11.6 hectares, situated in the suburb of Prestons within a residential setting in the Liverpool Local Government Area (LGA). It is surrounded by neighbouring residential lots, Cabramatta Creek and remnant bushland The Subject Property is zoned as 'R2 Low-Density Residential' and encompasses numerous buildings, pavements, and open spaces that collectively form the school's infrastructure. While the vegetation on the Subject Property is predominantly cleared, native vegetation persists along the Western boundary.

The Subject Site is located in the eastern part of the Subject Property and is approximately 0.85 hectares. This area includes an existing car park, a sports field, and garden beds.

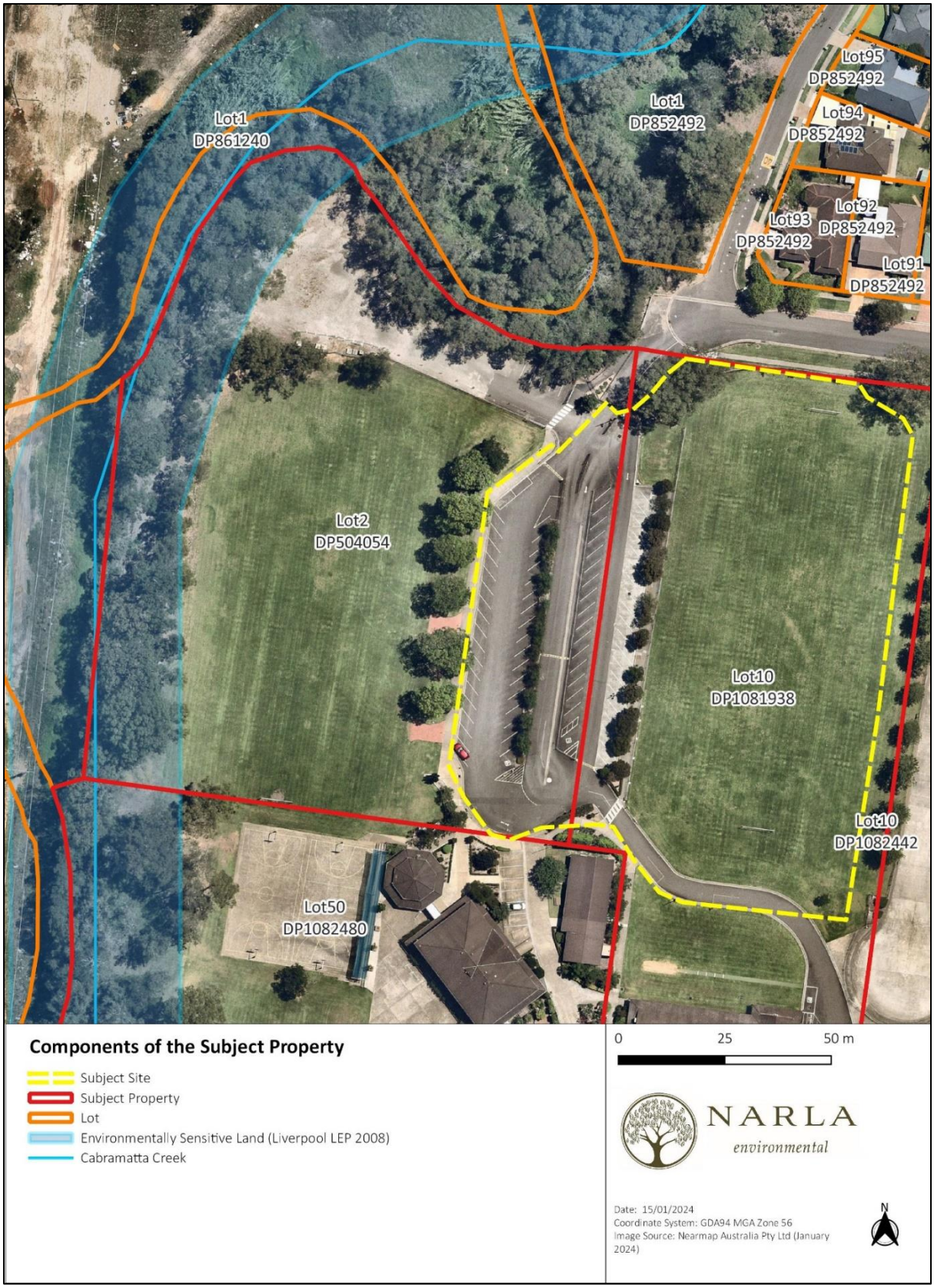

Figure 1. Components of the Subject Property.

3. Regulatory Requirements

Section 7.6 of the Liverpool LEP 2008 outlines the regulations surrounding development around Environmentally sensitive/significant land (**Figure 1**). The objectives of this clause are as follows—

- to maintain bushland, wetlands and wildlife corridors of high conservation value,
- to identify areas of significance for revegetation to connect to or buffer bushland, wetlands and wildlife corridors,
- to protect rare and threatened native flora and native fauna,
- to ensure consideration of the significance of vegetation, the sensitivity of the land and the impact of development on the environment prior to the giving of any development consent.

This assessment ensures that the significant vegetation within and surrounding the Subject Site is thoroughly evaluated, taking into account the environmental impact of the development. Moreover, the proposed development is planned at a considerable distance from the areas indicated on this map. Consequently, the objectives of this clause are fulfilled.

4. Vegetation Communities

The State Vegetation Type Map (DPE 2022) has identified the presence of the Coastal Valleys Riparian Forest within the western extent of the Subject Property, which is recognised as a Threatened Ecological Community (TEC) under the Biodiversity Conservation Act 2016 (BC Act) (Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions) and Environmental Protection and Biodiversity Act 1999 (EPBC Act) (Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community). To validate vegetation within the Subject Site and the western extent of the Subject Property, a site assessment was conducted on the 20th of December 2023. The assessment confirmed the existence of the following vegetation zones within the Subject Site (**Figure 2**):

- Urban Exotic and Native
- Coastal Valleys Riparian Forest (low)

Coastal Valleys Riparian Forest was confirmed within the western extent of the Subject Property and exists in a moderate condition. A large portion of this vegetation is contained behind fencing surrounding the school grounds (**Plate 1**). The vegetation within the school grounds is modified and in a lower condition the vegetation behind the fencing. Trees within this zone include *Eucalyptus punctata*, *Eucalyptus tereticornis*, *Casuarina glauca*, and *Eucalyptus molucanna*. The mid storey is limited and includes species such as *Melaleuca stypheloides, Syzgium spp., Allocasuarina littoralis* and *Acacia spp*. The ground layer is highly disturbed due to proximity to the car park and sports fields, and included native species such as *Cynodon dactyldon, Einadia hastata* and *Chenopodium nutans*. Exotic species include but are not limited to *Ehrhata erecta, Conyza spp*. and *Portulaca oleracea*.

Plate 1. An example of Coastal Valleys Riparian Forest (moderate) within the western extent of the Subject Property.

The vegetation identified within the Urban Exotic and Native zone primarily features garden beds, planted trees, and lawn space. The garden beds are extensively hardscaped, limiting the vegetation beneath the tree species. Trees within this zone include *Schinus molle*, *Callistemon salignus*, *Corymbia ficifolia*, and *Liquidambar styraciflua*. While *Callistemon salignus* is a native species to NSW, in this context, it does not align with any specific Plant Community Type and is considered a planted species. The remaining vegetation in this zone consists of horticultural and weed species, such as *Grevillea spp., Ehrhata erecta, Buxus spp*., *Axonopus compressus, Bouteloua dactyloides*, and *Bidens pilosa*.

The area identified as Coastal Valleys Riparian Forest (low) comprises of *Eucalyptus tereticornis* in a highly modified garden bed with native and horticultural species in the mid-storey and understorey, including various *Grevillea spp*., *Brachychiton spp*., *Carpobrotus spp*., and *Dianella caerula*, as well as weed species like *Sonchus spp*. and *Bidens pilosa*. None of the vegetation in this zone is proposed for removal; however, it may face indirect impacts, particularly due to the construction of the footpath as part of the proposed development. This zone, along with the broader Coastal Valleys Riparian Forest within the Subject Property, is effectively separated from the proposed development by a combination of fencing, hardscaping, and distance.

Plate 2. *Callistemon salignus* with hardscaping in Urban Exotic and Native zone.

Plate 3. Lawn area within Urban Exotic and Native zone.

Plate 4. Coastal Valleys Riparian Forest (low) separated from the proposed development by fencing.

Plate 5. Coastal Valleys Riparian Forest (low)

Additionally, there is a single Eucalyptus tereticornis located in the northeast of the Subject Property. Although it falls outside the defined Subject Site boundaries and it is proposed for retention, it may encounter indirect impacts as a result of the roadway construction. This particular *Eucalyptus tereticornis* is designated as 'Coastal Valleys Riparian Forest (low)' in **Figure 2.**

Figure 2. Field Validated Vegetation Mapping.

5. Conclusion

The Subject Site is positioned approximately 85 meters from the Liverpool LEP mapping, and the majority of the identified Coastal Valleys Riparian Forest is enclosed behind fencing or otherwise separated from the Subject Site by roadway and hardscaping, thus remaining buffered from direct impacts.

Vegetation removal within the Subject Site primarily targets exotic species. The *Eucalyptus tereticornis* present within the Subject Site is proposed for retention, and it is recommended that appropriate tree protection measures accompany this retention. Consequently, the proposed development is not expected to directly impact areas identified as containing Threatened Ecological Communities (TECs) under the BC Act 2016 and EPBC Act 1999, nor will it affect those areas mapped as 'environmentally sensitive areas' according to the Liverpool LEP 2008.

In light of these considerations, the proposed development aligns with regulatory requirements of the LEP and is not anticipated to adversely affect biodiversity considerations within the Subject Property.

Sincerely,

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6. References

Department of Planning and Environment (DPE) (2022) The State Vegetation Type Map

Department of Planning and Environment (DPE) (2023a) NSW BioNet. The website of the Atlas of NSW Wildlife http://www.bionet.nsw.gov.au/

Department of Planning and Environment (DPE) (2023b) NSW Biodiversity Value Map Version 15 https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap

Gardner Wetherill (2024) Proposed Car Park Plan for William Carey Christian School

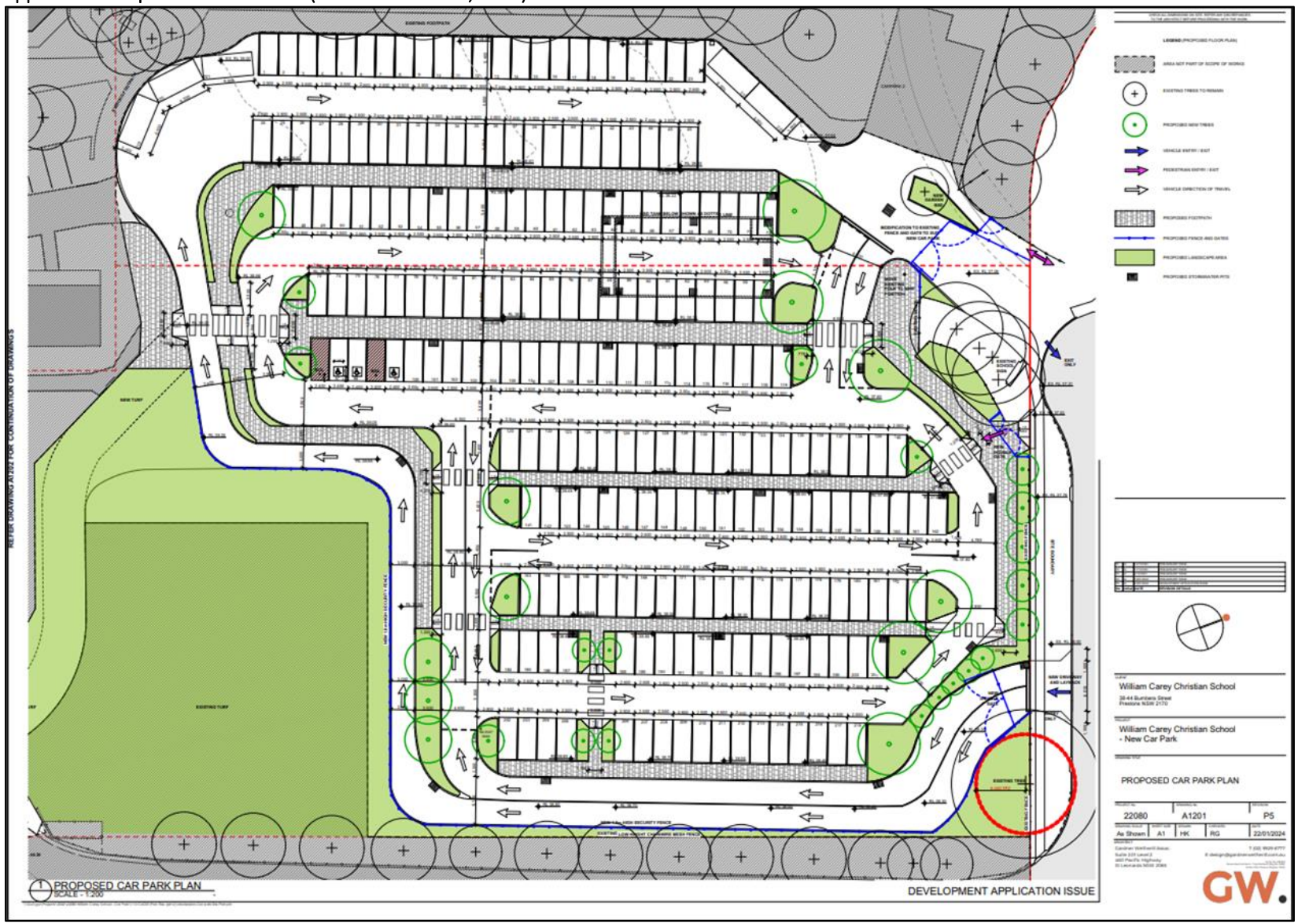
Government Spatial Services (SIX Maps) (2023) NSW Government Land & Property Information Spatial Information Exchange map viewer, https://six.nsw.gov.au/

Nearmap Australia Pty Ltd (2023): William Carey Christian School NSW.

PlantNET (2023) The NSW Plant Information Network System, Royal Botanic Gardens and Domain Trust, Sydney. http://plantnet.rbgsyd.nsw.gov.au

Robinson, L. (2003) 'Field Guide to the Native Plants of Sydney', Third Edition, Kangaroo Press

Appendix A. Proposed Car Park Plan (Gardner Wetherill, 2023)



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