PROPOSED WAREHOUSE DEVELOPMENT

246 Miller Road, Villawood Riparian Management Advice

Prepared for:

SLR[©]

The Trustee for Villawood Property Asset Trust CraigThomas@logosproperty.com

SLR Ref: 630.30024-R01 Version No: -v1.1 June 2020

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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with The Trustee for Villawood Property Asset Trust (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
630.30024-R01-v1.1	3 June 2020	J Pepper	A Cavallaro	J Pepper
630.30024-R01-v0.2	28 May 2020	J Pepper	A Cavallaro	



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1 Introduction

Logos Property (Logos) are proposing to develop a new industrial estate at 246 Miller Road, Villawood (the site). An amended development application (DA/632/2019, the 'amended DA') was lodged to Canterbury Bankstown Council (Council), pursuant to Section 4.12 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The amended DA seeks development consent for the development of a warehouse industrial estate including:

- Consolidation of allotments and realignment of boundary to create two new lots;
- Demolition and removal of existing buildings, structures, and rail infrastructure;
- Construction of five warehouse and distribution centres (with ancillary office space);
- Construction of loading docks, hard standing areas, internal access roads, and car parking;
- Tree removal and landscaping works; and
- Service connections and infrastructure augmentation and additions.

Council has subsequently issued a request for further information, including the proposed treatment of land adjoining the southern boundary of the site, which adjoins a stormwater channel. An email from Council refers to letter from Council dated 19 December 2019 which stated:

"The proposed development fails to comply with Clause 2.7 of the Bankstown Development Control Plan – Part B3 which provide as follows:

2.7 Development must achieve a minimum setback of 15 metres from a riparian corridor (measured from the top of the watercourse banks), and must revegetate the riparian corridor to Council's satisfaction.

You are advised that in accordance with the definition of watercourse contained within the Bankstown Local Environmental Plan dictionary, the stormwater channel is considered to be a watercourse and in turn a riparian corridor.

Although it is noted in the Panel minutes that a strong justification is required in Council's assessment report, it is unlikely that Council will support a variation to this clause."

In the email, Council further states:

"You are further advised that the vegetation located adjacent to the canal that is proposed to be impacted by the development was observed to contain Casuarina glauca (Swamp Oak) trees in the Arboricultural Assessment completed by Tree & Landscape Consultants (2019). These trees commonly grow in riparian corridors and were observed to be mature in age and exhibiting good vigor [sic]. The vegetation adjacent to the concrete lined canal is considered to be riparian vegetation contributing to forming a riparian corridor.



From a biodiversity perspective, the riparian vegetation surrounding the canal is important in providing a vegetated corridor that connects to Orphan School Creek, Prospect Creek and the Georges River. This vegetated corridor is known to contain Cooks River Castlereagh Iron Bark Forest which is listed as an endangered ecological community under the Biodiversity Conservation Act and a critically endangered ecological community under the Environment Protection and Biodiversity Conservation Act. Maintaining and enhancing the connectivity of this riparian zone is important for the long-term viability of this corridor.

Additionally, Council have developed plans to restore many of the concrete lined canals in the locality to natural watercourses to further improve the environmental condition of local catchments. This is evidenced by the most recent daylighting of the subject canal channel with macrophyte beds. It is highly likely that this canal would be a suitable candidate for further naturalisation works.

This canal was previously a natural creek that has since been lined with concrete to reduce the risk of flooding and to increase bank and bed stability. The canal however does remain a watercourse and there are other outcomes/objectives for maintaining a riparian corridor such as enhancing connectivity between sites along the watercourse.

Clause 2.7 of the BDCP 2015 – Part B3 was adopted to protect the sensitive vegetation located within the proximity of watercourses and can be applied to all riparian corridors in Bankstown.

It is also recommended that the fire truck access road be composed of permeable material such as crushed sandstone to allow natural filtration of stormwater runoff from the large areas of impermeable surfaces."

SLR Consulting Australia (SLR) has been engaged to provide a review of the Council request quoted above and the proposed treatment of the riparian land adjacent to the stormwater channel and provide recommendations for management of this area.

Document reviewed as part of the current investigation include:

- Amended Statement Of Environmental Effects (Urbis 2020);
- Amended architectural plans (Axis 2020);
- Amended Landscape Plan (Habit8 2020);
- Arboricultural statement (Tree and Landscape Consultants 2019); and
- Amended cross-sections (CD-A-163, Version P4 and CD-A-164), attached at Appendix A (Axis 2020).

2 Site Description

2.1 Overview

The area of the land to which the amended DA relates is 109.9 hectares. The site is located within the Villawood industrial precinct. The precinct has an established history of operation for warehouse and distribution, freight, and logistics uses. The site contains industrial premises (occupied and vacant), an operational freight distribution facility (subject to a current DA under assessment), container storage areas, hardstand parking areas and an intermodal rail terminal.



The amended proposal seeks to redevelop the site and continue its use for warehouse and distribution and other light industrial purposes.

Existing development on the site can be summarised as follows:

- Lot 201 (1 Monier Square) is currently used by Toll for warehouse purposes.
- Lot 162 (246 Miller Road) is currently used by Toll for warehouse purposes.
- Lot 21 (220 Miller Road) contains an unoccupied building that appears in a semi-dilapidated state.
- Lot 35 (220 Miller Road) is currently used as a train carriage storage area which is accessed off the adjacent rail corridor.
- Two train carriage slip lanes are identified on the site and primarily located within the boundaries of Lot 162 in DP 529288. These provide direct access to the train line to the north of the site.

There is dispersed vegetation within Lot 21 and in the north western corner on the boundary of Lot 162. Tree plantings and landscaping are present along the eastern and southern boundaries.

2.2 Riparian Zone

The southern boundary of the site lies adjacent to a concrete lined stormwater channel. Approvals under the NSW *Water Management Act 2000* for works within 40 m of a watercourse do not apply to channels that are "fully concrete lined" (see NSW Department of Industry 2018) and accordingly an associated Controlled Activity Application to the NSW Natural Resources Access Regular (NRAR) is not required. Despite not having an approval role for the works, NRAR suggests that creation of a vegetated riparian zone is desirable and the riparian buffer width should be 10 m (according NRAR guidelines), as the channel is a first order stream (under the Strahler system). Additionally, Council note that Clause 2.7 of the *Bankstown Development Control Plan* (DCP) requires a 15 m setback along watercourses and the channel qualifies as a watercourse.

The southern parts of the site contain mainly hardstand, being bitumen or concrete sealed roads and car parking areas, with limited pockets of landscaping, including a very narrow belt of trees between an internal road and the southern fence line. More substantial plantings of Spotted Gum *Corymbia maculata* are located on the eastern boundary of the site along the Miller Road frontage. The arboricultural statement (Tree & Landscape Consultants 2019) and the landscape plan (Habit8 2020) both identify planted vegetation along the southern boundary of the site, adjacent to the stormwater channel, as follows:

- A narrow belt of planted Black Tea-tree *Melaleuca bracteata*, which stretches along most of the southern boundary and occupies a width of approximately 0.5 m to 1 m (see **Photo 1**). These trees are identified for removal in the landscape plan (see **Figure 1**);
- a stand of planted Swamp Oak *Casuarina glauca* in the south eastern corner of the site, near the Miller Road entrance (see **Photo 2**). Most of these trees are identified for removal on the landscape plan (see **Figure 1**), with a small number of trees (including Spotted Gums) to be retained adjacent to Miller Road.

Adjoining the landscaped strip of *Melaleuca bracteata* is a chain mesh fence and between the fence and the channel is a narrow (~1 m wide) strip of disturbed land with a mix of common weed species (herbs and grasses) and self-recruited native species (e.g. juvenile Swamp Oaks).





Figure 1 Excerpt of Landscape Plan (showing tree removals on southern boundary)







Melaleuca bracteata is a non-indigenous native that is distributed north of the Macleay River, but is a common landscaping plant around Sydney. This species would not occur naturally along watercourses in western Sydney. The small size of the trees and lack of hollows would limit their habitat value for native fauna, although they would provide refuge for small birds.

Casuarina glauca is a small to medium sized tree that occurs along estuaries and freshwater and brackish watercourses along the NSW coast, as well as in western Sydney. The trees on site are likely to have been planted, given their location on site, and similar age and height. Most of the stand will be removed for the proposed DA works. The trees appear to lack hollows, so would not provide roosting resources for hollow obligate species, but larger parrots, such as the Yellow-tailed Black Cockatoo, are known to feed on the cones of trees in Casuarinaceae family. Nonetheless, the small extent of the stand and the industrial land use surround the trees would limit their value to native birds and other fauna.

Photo 2 Stand of Swamp Oak Casuarina glauca in southeast corner of site





3 Riparian Zone Proposal

The amended proposal for the southern boundary of the site, as depicted on the amended cross-sections in **Appendix A**, comprises the following key features:

- Fire truck access road, which is a mandatory requirement to allow access for fire fighting vehicles. The amended proposal provides for a 5.675 m wide paved road, constructed of a permeable material (TurfPave XO).
- Vegetated Riparian Zone between the fire access road, the southern site boundary and from the site boundary to the edge of the channel. This strip of land will be recontoured, with clean soil placed and planted with a selection of locally indigenous flowering plants (small trees, shrubs and groundcovers).

The total width of the proposed riparian zone extends from the top-of-bank of the channel to the edge of the proposed warehouse building with a total width of 8.6 m to 11.5 m (see **Appendix A**).

The amended proposal will provide the following benefits over and above the existing area of land:

- Increased width and area of native vegetation, from around 3 m to 6.15 m;
- Improved habitat value, with the replacement of weeds and poor condition vegetation with local indigenous plants that will, over time, grow to provide foraging (flower and nectar) resources for local birds and other fauna;
- Improved condition of ground layer, with the removal of weeds, rubbish and unconsolidated fill and replaced with clean soil, mulch and increased shade from plantings, which will improve micro-habitats for ground dwelling reptiles; and
- Increased native plant diversity, with revegetation of the strip with a selection of plant species that are native to western Sydney. Plant species are to be drawn from Cooks River Castlereagh Ironbark Forest threatened ecological community, as noted below.

The amended proposal will also address Council's request (as quoted above in **Section 1**), as follows:

- Creates a vegetated riparian zone (or VRZ), consistent with NRAR guidance for waterfront land and with Clause 2.7 of the DCP, although it is acknowledged that the recommended width of the VRZ will not be 15 m as per the DCP or 10 m wide as per NRAR guidelines; the space limitations of the site and the design requirements of the proposed warehouse, as well as the requirements for a fire access road, do not allow a riparian corridor of greater width;
- Introduction of native plants and trees to an area that is largely lacking in native riparian vegetation (i.e. replacement of non-indigenous plantings and weeds with local native plants); the existing vegetation is not 'fully structured native vegetation' as set out in NRAR (2018);
- Improves the riparian corridor condition and function of the stormwater channel and over time, will enhance the corridor links along the channel to other areas of vegetation in the locality; it is noted that the channel connects to Orphan School Creek, Prospect Creek and the Georges River;
- Compensates for the removal of a small number of Swamp Oaks adjacent to the channel;
- Provides for a permeable substrate for the fire access road, as requested. The permeable road surface will replace the existing impermeable bitumen and concrete surfaces in this part of the site.



4 **Recommendations**

- Amend landscape plan to provide detailed drawing of proposed riparian planting area (i.e. vegetated riparian zone) along southern boundary;
- Create a 'vegetated riparian zone' between fire access road and channel bank, with imported clean substrate (sandy loam VENM soil or crushed sandstone) and plantings of local indigenous species; seek to maintain or rehabilitate the zone with fully structured native vegetation, in accordance with NRAR (2018) guidance;
- Riparian Plantings revegetate the riparian zone with plant species selected from the Final Determination for Cooks River Castlereagh Ironbark Forest (NSW Scientific Committee 2011). A copy of the profile for Cooks River Castlereagh Ironbark Forest, which notes characteristic species of this community, is provided at **Appendix B.** Plant species and densities will be set out in a vegetation management plan;
- Management plan prepare a Vegetation Management Plan (VMP) for the riparian zone, in accordance with the *Guidelines for vegetation management plans on waterfront land* (NSW Office of Water 2012). The VMP will set out weeding requirements, planting details, management and maintenance for the zone. A copy of the VMP will be provided to Council.

5 References

Axis (2020) Amended architectural plans.

Habit8 (2020) Amended Landscape Plan.

NRAR (2018) *Guidelines for controlled activities on waterfront land Riparian corridors*. Natural Resources Access Regulator. Published by NSW Department of Industry.

NSW Department of Industry (2018) *Controlled activity approval exemptions Fact sheet*. NSW Department of Industry, Sydney.

NSW Office of Water (2012) *Guidelines for vegetation management plans on waterfront land*. Department of Primary Industries, Sydney.

NSW Scientific Committee (2011) Cooks River/Castlereagh ironbark forest in the Sydney Basin Bioregion endangered ecological community listing. NSW Scientific Committee - final determination. NSW Department of Planning Industry and Environment. Available at: https://www.environment.nsw.gov.au/determinations/CooksRiverCastlereaghIronbarkForestSydneyEndComLi sting.htm.

Tree and Landscape Consultants (2019) *Arboricultural Statement*. Prepared for Habit8. Tree and Landscape Consultants, Surry Hills.

Urbis (2020) *Amended Statement Of Environmental Effects Villawood Industrial Estate*. Final. Prepared for Logos Property. Amended SEE – Final. Urbis, Sydney.



APPENDIX A

Cross-sections

CD-A-163 and CD-A-164









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858 sarchitects.com.au	Nominated Architect David McDonald - NSW ARB NO. 7997	Vaughan Constructions	Date : April 2020 Scale : 1 : 500 @ B1	190201	CD - A

APPENDIX B

Cooks River Castlereagh Ironbark Forest Profile





ENDANGERED ECOLOGICAL COMMUNITY INFORMATION

Cooks River/Castlereagh Ironbark Forest





NPWS/M. Cufer 2001

Conservation Status

Cooks River/Castlereagh Ironbark Forest is listed as an endangered ecological community under the *Threatened Species Conservation Act* 1995.

Description

Cooks River/Castlereagh Ironbark Forest is a community that ranges from open forest to low woodland, with a canopy dominated by broad-leaved ironbark (Eucalyptus fibrosa) and paperbark (Melaleuca decora). The canopy may also include other eucalypts such as woolybutt (E. longifolia). The dense understorey shrubby consists of Melaleuca nodosa and peach heath (Lissanthe strigosa), with a range of 'pea' flower shrubs, such as Dillwynia tenuifolia, Pultenaea villosa and Daviesia ulicifolia (can be locally abundant). The sparse ground layer is made of grasses and herbs, including kangaroo grass (Themeda australis), weeping meadow grass (Microlaena stipoides var stipoides) and Entolasia stricta.

Distribution

The extent of better quality remnants of Cooks River/Castlereagh Ironbark Forest is now reduced to 1011 ha, which is 8.3% of its original distribution, with a further 6.2% remaining as scattered trees (NPWS 2002a, NPWS 2002b).

The most extensive stands of Cooks River/Castlereagh Ironbark Forest occur in the Castlereagh and Holsworthy areas. Smaller remnants occur in the Kemps Creek area, and in the eastern section of the Cumberland Plain, such as Cooks River

valley, Duck River, Bankstown, Chullora and Rookwood.

Cooks River/Castlereagh Ironbark Forest occurs primarily in the Penrith, Blacktown, Liverpool, Auburn, Bankstown, Canterbury, Strathfield and Parramatta local government areas.



NPWS/M. Cufer 2001

Examples to see

Good examples of Cooks River/Castlereagh Ironbark Forest can be seen at the Castlereagh Nature Reserve, Windsor Downs Nature Reserve and Agnes Banks Nature Reserve.

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