



Memorandum

10 September 2018

To Transport for NSW

Copy to

From Kirsten Crosby

Tel 9239 7225

Subject Ecology assessment: Kingswood Station

Job no. 2127503

1 Background

1.1 Proposal overview

The NSW Government is committed to facilitating and encouraging the use of public transport, such as trains, by upgrading stations to make them more accessible, and improving interchanges around stations with other modes of transport such as bicycles, buses and cars.

The Transport Access Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure where it is needed most.

Kingswood Station does not currently meet key requirements of the Disability Standards for Accessible Public Transport (DSAPT) or the Commonwealth Disability Discrimination Act 1992 (DDA).

The non-compliant access points and stairs to the Kingswood Station concourse and platforms do not facilitate access for people with reduced mobility, parents/carers with prams or customers with luggage. There are no lift facilities and inadequate amenities and tactile surfacing to stairs, platforms and interchange facilities.

The Proposal would involve upgrade works to Kingswood Station, interchange facilities and surrounding footpaths. The station is located 52 kilometres west of the Sydney Central Business District (CBD) in the suburb of Kingswood and is serviced by the T1 Western Line.

Platform 1 provides train services east to the CBD and Platform 2 provides train services west toward Penrith. The Proposal is located within Penrith local government area adjacent toward to the Great Western Highway, Kingswood.

The key features of the Proposal are summarised as follows:

- new station entries at the eastern end of each station platform at the corner of Park Avenue and Richmond Road and the Great Western Highway
- installation of a new lift, canopy and concrete suspended landing on each station platform to the east of the concourse
- installation of new access stairs and new landing at the eastern end of each station platform

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Memorandum

- installation of new roof and guttering at the eastern end of the station concourse to allow for the new access stairs and pedestrian access to and from the new lifts
- installation of about 35 solar panels on the new roof of the concourse
- regrade existing platform/concourse surfaces to provide DDA compliant pedestrian routes between new lifts and station entry/exit
- modification of pedestrian access to provide a DDA compliant accessible path of travel from the station concourse to the interchange facilities
- installation of a new 75 kVA high voltage transformer, underground cabling of existing 33 kVA power supply and installation of a new power pole to the north east of the station; upgrade of low voltage systems to account for new infrastructure including aboveground and underground cable containment
- removal of existing landscaping, kerb edge and fencing near Park Avenue and Richmond Road and the Great Western Highway
- internal reconfiguration of existing station building layout (within concourse) to allow for a new communications room, family accessible toilet, ambulant toilet, staff toilet, storage room and cleaner's storeroom. Works would also increase space within the concourse for movement of customers
- ancillary works including adjustments to lighting and ticketing machines, new anti-throw screens, handrails and fencing, minor drainage works on both side of the rail corridor, landscaping, improvements to the station communications systems including closed circuit TV (CCTV) cameras, hearing loops, public announcement (PA system), wayfinding signage, emergency help points, and installation of tactile ground surface indicators (TGSIs).

Subject to planning approval, construction is expected to commence in early 2019 and take around 18 months to complete.

The proposed upgrade is being assessed under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Transport for New South Wales (TfNSW) is both the proponent and determining authority. A Review of Environmental Factors (REF) has been prepared to assess the impacts on the environment.

1.2 Purpose of this report

This ecological assessment has been prepared to consider aspects of the following NSW and Commonwealth environmental planning legislation with respect to the Proposal, the:

- NSW *Biodiversity Conservation Act 2016* (BC Act)
- Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The primary objectives of the ecological assessment are to:



Memorandum

- Describe the existing environment of the proposal area and identify potential ecological constraints and opportunities, including the presence or likely presence of species, populations and ecological communities and their habitats listed under the BC Act and EPBC Act
- identify the potential impacts of the proposed works on native biota and listed species, populations and ecological communities and their habitats
- assess the likely significance of impacts on listed biota and identify if further assessment or approvals under the BC Act or EPBC Act are required
- advise on management measures to avoid or minimise impacts on planted trees near to works areas.

2 Desktop review

A desktop review of existing information was undertaken prior to the site inspection to identify biodiversity values that may be of relevance to the proposal. This included the following:

- review of aerial photography and site plans to allow preliminary identification of the existing environment and areas to be affected by the proposed works
- review of regional vegetation mapping, the NSW Bionet Wildlife Atlas and the EPBC Act Protected Matters Search Tool for records of any threatened species, populations or ecological communities, or migratory species in the locality that may have potential to be affected by the proposed works.

3 Site inspection

A site inspection was conducted by a GHD ecologist on 7 August 2018. A walked traverse of the extent of the Proposal site was undertaken. The site inspection included surveys within the proposal site to identify the following:

- vegetation types and condition, and to confirm conservation significance with reference to threatened ecological communities listed under the BC and EPBC Acts
- suitable habitat for threatened plants or suitable habitat and specific resources (e.g. tree-hollows) for threatened fauna species.

4 Existing environment

The proposal site is located within a highly urbanised and modified landscape. No stands of intact naturally occurring native vegetation are present within the proposed area of works. The following planted vegetation occurs within the proposal site:

- exotic shrubs within planter boxes alongside the platforms (Plate 1)
- a mix of native and exotic ornamental species, including *Eucalyptus spp.* saplings, Prickly Paperbark trees (*Melaleuca styphelioides.*), bottlebrushes (*Callistemon spp.*), exotic Crepe Myrtle (*Lagerstroemia*) and Canary Island Date Palm (*Phoenix canariensis*) are located within



Memorandum

landscaped areas at the eastern end of each station platform at the corner of Park Avenue and Richmond Road and the Great Western Highway (see Figure 1, Plate 2).



Plate 1 Exotic shrubs within planter boxes



Plate 2 Native plantings within the eastern corner of the proposal site

No naturally occurring stands of native vegetation are present. All native trees have been planted. No threatened flora species are likely to occur in this planted vegetation given the highly modified and maintained nature of the landscaped areas.



Memorandum

The small, isolated patches of planted trees are likely to provide some limited shelter and foraging habitat for more mobile fauna, such as common bird species typical of urban parks and gardens, including the Noisy Miner (*Manorina melanocephala*) and Rainbow Lorikeet (*Trichoglossus moluccanus*). There were no obvious nests in the canopy of trees observed during the site inspection or tree hollows that could provide potential nest sites for hollow-dependent species, including birds or possums. There is a lack of understorey and groundcover vegetation and so very limited habitat for ground-dwelling fauna, although small common garden skinks (*Lampropholis* spp.) may occur in the mulched groundcover. The vegetation to be removed would not be important for the persistence of any local populations of common fauna species.

The small stands of planted trees in landscaped areas do not provide suitable or important habitat for the threatened fauna that have been previously recorded in the locality. Records of threatened fauna from the wider locality are associated with more extensive areas of intact native vegetation associated with regional reserves and riparian corridors.

5 Potential impacts

The proposal would result in the removal of two small patches of planted native and ornamental exotic species located within landscaped areas at the eastern end of each station platform at the corner of Park Avenue and Richmond Road and the Great Western Highway for the upgrade of facilities at the station (Figure 1).

It is possible that removal of a smaller area of vegetation would be required than indicated on Figure 1 on the southern side of the station, dependent on final design and access requirements for machinery. For the purpose of this report, the largest potential impact area has been assessed.

The proposed works will not remove or modify any stands of intact native vegetation or important habitat for common native fauna that may occur at the site on occasion. The small patches of planted trees do not comprise suitable habitat for threatened flora or fauna species and no threatened fauna species would be reliant on these areas for their survival in the locality. Consequently, the proposed works would not have a significant impact on any threatened biota listed under the BC Act or the EPBC Act.

6 Mitigation

The proposed works are located within a highly modified urban landscape and will have very limited impacts on biodiversity values. Temporary fencing should be installed around trees proposed for retention in the vicinity of the proposed works in accordance with Standards Australia (2009) - *protection of trees on development sites, AS 4970 – 2009* to protect trees during construction.

The removal of individual trees for the proposal would be offset in accordance with the Vegetation Offset Guide (TfNSW 2016) and outlined in Table 1. Offsets would be implemented once the exact extent of the clearing required and the number of trees to be removed has been confirmed with TfNSW. Under the Vegetation Offset Guide, trees are defined as a 'woody plant greater than two metres tall with a single stem or branches above the base'.



Memorandum

Table 1 Offsetting for individual tree removal

Size of tree (Diameter at Breast Height)	Offset required
Large tree (DBH>60cm)	Plant minimum of 8 trees
Medium tree (DBH 15-60cm)	Plant minimum of 4 trees
Small young tree (DBH<5cm)	Plant minimum of 2 trees

7 Conclusion

The Proposal is located within a highly modified urban landscape and will involve the removal of two small patches of planted trees within landscaped gardens. There will be no disturbance of any complete, continuous patches of native vegetation or habitat for threatened biota adjacent to or within the proposal site.

Based on these findings, the proposed works would not have a significant impact on any threatened biota (or associated habitat) listed under the BC Act and therefore would not trigger the requirement for a Species Impact Statement or assessment using the Biodiversity Assessment Methodology (BAM) under the provisions of the Act. Similarly, the proposed works would not have a significant impact on any listed biota under the EPBC Act and consequently a referral to the Australian Government Minister for the Environment is not required.

The removal of individual trees for the proposal would be offset in accordance with the Vegetation Offset Guide (TfNSW 2016). Offsets would be implemented once the exact extent of clearing required and number of trees to be removed has been confirmed with TfNSW.

8 References

Standards Australia (2009). *Australian Standard: protection of trees on development sites, AS 4970 – 2009*, Standards Australia, Sydney.

TfNSW (2016). *The Vegetation Offset Guide. Version 1.*

Regards,

Kirsten Crosby

Senior Ecologist



Legend

- The Proposal Site
- Planted Vegetation
- Proposal Elements
- Proposed clearing areas

0 5 10 15 20
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

Planted Vegetation **FIGURE 1**