Tree Impact Assessment Report – Rail Corridor

SMCSWSSJ-JHL-WSS-EM-REP-000001

Document and Revision History

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1. Introduction

1.1 Background

This report has been produced to detail the species and number of trees within the rail corridor that will be removed as part of the Sydenham Station and Junction (SSJ) works. A separate report will detail trees to be removed as part of the works that are located outside the rail corridor. It is noted that for the purpose of this report the rail corridor includes all land owned by RailCorp where trains operate.

The ecological potential of the project site has been assessed under the *Sydney Metro City & Southwest Chatswood to Sydenham Environmental Impact Statement* and the subsequent *Sydenham Station and Sydney Metro Trains Facility South Modification Report*. The assessment found "All vegetation identified within the study area is mapped as Urban – Exotic / Native in Native Vegetation of the Sydney Metropolitan Catchment Management Authority Area (Department of Environment, Climate Change and Water, 2009a) and field assessment has confirmed that most vegetation is planted or exotic regrowth... No native vegetation communities were observed during site inspections, and none of the vegetation in the study area meets the criteria for any threatened ecological community listed under the EPBC Act or the TSC Act... No threatened flora species were recorded." (Page 804 C2S – EIS). Also, "The existing biodiversity environment in the vicinity of Sydenham was described as part of the assessment of the approved project." (Page 243 C2S EIS Modification report).

In accordance with the *Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval* a tree is defined as "Long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks". Condition of Approval E6 requires a Tree Report to be prepared prior to the removal of any trees from the project area. A copy of the tree report is to be submitted to the Secretary before the removal, damage and/or pruning of any trees.

In accordance with the *Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval* E6 this report is a standalone Tree Report for the area within rail corridor associated with the SSJ works.

1.2 Project Location

Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport. Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport Sydenham Station lies approximately 6km south of the Sydney CBD and 2.5km from Sydney (Kingsford Smith) Airport

2. Site Inspections

Bryce Claassens, Consulting Arborist of Urban Arbor, attended the project site to undertake a tree inspection and assessment on the 7th of March 2018. A copy of Bryce's curriculum vitae is included within Appendix A.

Trees have been assessed for visual amenity in regards to;

- The health of the tree
- Screening provided by the tree
- Whether the tree has any cultural or heritage significance
- Whether the tree forms part of a habitat linkage

3. Inspection Results

Trees to be removed within the corridor have been mapped, counted and assessed. A copy of the mapping is included within Appendix B.

Details of the trees present within the rail corridor are included within Table 1.

Table 1 Trees Recorded Within Rail Corridor

Area	Species	Condition	Amenity/Visual Character	Number
1	Acacia spp	Healthy	Will provide some minor screening of local residents from rail corridor. These trees must be removed to allow the construction of the shunt track. The trees will remain in place for as long as possible and will only be removed prior to the shunt track works.	5
2	Acacia spp	Healthy	Single tree away from residential properties - negligible amenity/visual significance	1
3	Acacia spp	Healthy	Single tree away from residential properties - negligible amenity/visual significance	1
4	Grevillea robusta	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	3
5	Grevillea robusta	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	8
6	Jacaranda mimosifolia	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	1
7	Lephostemon confertus	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	1
8	Populus spp	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	1
9	Grevillea spp & Acacia spp	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	10
10	Grevillea spp Eucalyptus spp and Acacia spp.	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	30

11	Acacia spp	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	12
12	Grevillea spp Eucalyptus spp and Acacia spp.	Healthy	Negligible amenity/visual significance – no residential properties in vicinity – clearance would be consistent with character of remaining corridor	30
13	Casuarina glauca	Healthy	Trimming only – negligible amenity/visual significance	30
14	Syagrus romanzoffiana	Healthy	Single tree away from residential properties - negligible amenity/visual significance	1

A total of 104 trees within the rail corridor will be removed as part of the works. An additional 30 trees will be trimmed.

It is noted that as all trees are planted or native regrowth and as they are within the rail corridor, none of the trees have cultural or heritage significance.

4. Alternatives to Design

Trees in areas 1, 2 & 3 must be removed for the construction of the shunt track. These stands of vegetation would be within clearance limits of overhead power lines and must be removed to ensure the safe operation of the railway.

Trees in areas 4, 5, 6 & 7 must be removed to facilitate embankment works. The embankment must be upgraded as part of the works to ensure this part of the track remains stable.

Trees in areas 8, 9, 10, 11, 12 must be removed to facilitate service works. These areas are critical for clearance as the Combined Service Route must follow a certain alignment to ensure services such as power, communications and signals are connected to new rail components.

Trees in area 13 must be trimmed to ensure clearance is maintained between the trees and overhead wire structures and power lines.

The tree in area 14 must be removed to facilitate the installation of Combined Service Route. The CSR must be installed in this alignment to connect Sydenham Station to ULX16.

5. Mitigation Measures

JHLOR will implement a number of measures to ensure the correct trees are removed and to mitigate the risk of damage to trees that will remain. These mitigation measures include;

- The project will be designed to minimise impacts to trees where possible. This will include a review of design impacts and construction impacts on trees
- Relevant Councils and the DPE will be consulted in regards to replacement tree planting locations. Relevant Councils will be consulted in regards to appropriate sizes for replacement trees.
- A Vegetation Trimming and Removal Procedure will be implemented
- All existing trees to be retained within the site area must be protected in accordance with Australian Standard AS 4970 ‘Tree protection in development sites’ to avoid and minimise impacts
- All trees to be removed or trimmed will be appropriately demarcated
- Qualified and experienced tree loppers will be engaged to removed and trim trees

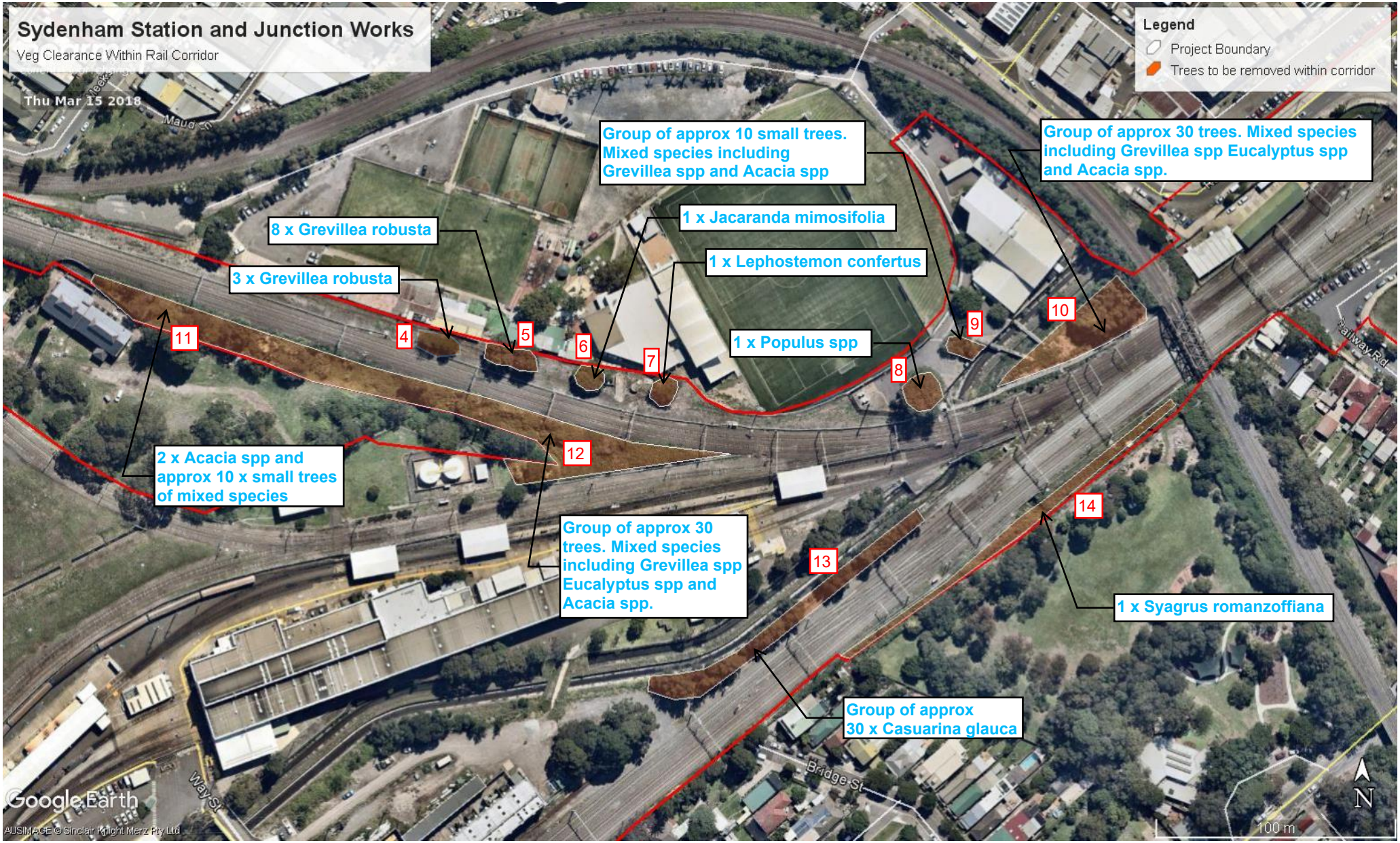
- Where works will occur in the vicinity of trees that are to remain intact, demarcation or barriers will be put in place around the tree at the extent of the structural root zone
- Access tracks will be clearly delineated and defined within the Environmental Control Maps
- Staff and workers to be educated on vegetation trimming and removal requirements
- A copy of the Tree Report must be submitted to the Secretary before the removal, damage and/or pruning of any trees, including those affected by the site establishment works.
- All recommendations of the Tree Report must be implemented by the Proponent, unless otherwise agreed by the Secretary.

It is also noted that the Critical State Significant Infrastructure (CSSI) must be designed to retain as many trees as possible and provide replacement trees such that there a net increase in the number of trees. In the event that tree removal cannot be avoided, then replacement trees are to be planted within, or in close proximity to the CSSI or other location in consultation with the Relevant Councils and agreed by the Secretary. The size of the replacement trees will be determined in consultation with the relevant Council.

Appendix A – Bryce Claassens CV

Appendix B – Rail Corridor Tree Mapping

Sydenham Station and Junction Works
Veg Clearance Within Rail Corridor
Thu Mar 15 2018
Legend
Project Boundary
Trees to be removed within corridor
1
5xAcacia spp.
2
1xAcacia spp.
3
1xAcacia spp.
Edinburgh Rd
Murray St
Sydney Steel Rd
Edgeware Rd
Bedwin Rd
May St
Campbell St
Unwins Bridge Rd
Silver St
Brown St
Florence St
Google Earth
AUSIMAGE © Sinclair Knight Merz Pty Ltd
N
100 m


Sydenham Station and Junction Works
Veg Clearance Within Rail Corridor
Thu Mar 15 2018
Legend
Project Boundary
Trees to be removed within corridor
Group of approx 10 small trees. Mixed species including Grevillea spp and Acacia spp
Group of approx 30 trees. Mixed species including Grevillea spp Eucalyptus spp and Acacia spp.
1 x Jacaranda mimosifolia
8 x Grevillea robusta
1 x Lephostemon confertus
3 x Grevillea robusta
1 x Populus spp
2 x Acacia spp and approx 10 x small trees of mixed species
Group of approx 30 trees. Mixed species including Grevillea spp Eucalyptus spp and Acacia spp.
1 x Syagrus romanzoffiana
Group of approx 30 x Casuarina glauca
4
5
6
7
8
9
10
11
12
13
14
Maud St
Railway Rd
Bridge St
Way St
Google Earth
AUSIMAGE © Sinclair Knight Merz Pty Ltd
100 m
N

Appendix C – Compliance Matrix

Table 2 lists the Section of this report that demonstrate compliance with CoA – E6.

Details	Compliance
The CSSI must be designed to retain as many trees as possible and provide replacement trees such that there a net increase in the number of trees	Section 5. New rail components have been designed to minimise the removal of trees where possible.
The Proponent must commission an independent, experienced and suitably qualified arborist to prepare a comprehensive Tree Report before removing any trees as detailed in the EIS, as amended by the documents listed in A1.	Section 2 and Appendix A. Bryce Claassens, consulting arborist from Urban Arbor was engaged to assess trees within the rail corridor.
The Tree Report must include:	
(a) a description of the conditions of the tree(s) and its amenity and visual value;	Section 3 - Table 1
(b) consideration of all options to avoid tree removal, including relocation of services, redesign or relocation of ancillary components (such as substations, fencing etc.) and reduction of standard offsets to underground services; and	Section 4
(c) measures to avoid tree removal, minimise damage to, and ensure the health and stability of those trees to be retained and protected. This includes details of any proposed canopy or root pruning, root protection zone, excavation, site controls on waste disposal, vehicular access, materials storage and protection of public utilities.	Section 5
In the event that tree removal cannot be avoided, then replacement trees are to be planted within, or in close proximity to the CSSI or other location in consultation with the Relevant Councils and agreed by the Secretary. The size of the replacement trees will be determined in consultation with the relevant Council.	Section 5. 104 trees to be removed from within the rail corridor will be replaced. Relevant Councils and the DPE will be consulted in regards to replacement tree planting locations. Relevant Councils will be consulted in regards to appropriate sizes for replacement trees.
A copy of the Tree Report must be submitted to the Secretary before the removal, damage and/or pruning of any trees, including those affected by the site establishment works.	Section 5. This report will be submitted to the Secretary prior to the removal, damage and/or pruning of any trees
All recommendations of the Tree Report must be implemented by the Proponent, unless otherwise agreed by the Secretary.	Section 5.
The Tree Report may be prepared for the entire CSSI or separate reports may be prepared for individual areas where tree removal and/or pruning is proposed	Section 1.This report is for trees within the rail corridor only. A separate report will be prepared for trees outside of the rail corridor.