AW EDWARDS

Fauna and Flora Management Procedure

PROJECT	Sydney City & Southwest Metro – Crows Nest Station	**REVISION**	02
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DOCUMENT INFORMATION

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Project Role	Lead Author	Technical Reviewer	Project Director
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Date	22 January 2024	22 January 2024	22 January 2024

DOCUMENT APPROVAL

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REVISION

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A	30-Oct-20	Draft	Element Environment	[redacted]	
B	30-Oct-20	For Review	Element Environment	[redacted]	Revision and status updated
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*Note Management Plan number has changed from SMCSWSCN-AWE-SCN-AN-PLN0000025 to SMCSWSCN-AWE-SCN-EM-PLN-0000019 to align with TeamBinder document numbering, at Rev C.

AW EDWARDS acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters and communities.
We pay our respect to Aboriginal and Torres Strait Islander people and culture, and to their Elders past and present.

"COMMUNITY"
Artwork by Raechel Saunders

CONTACTS

STAKEHOLDER	NAME	CONTACT DETAILS
Project Director	[redacted]	
Health and Safety Manager		
Completions Manager		
Construction Manager		
Project Manager		
Senior Site Manager		
Community Engagement Manager		
Training & Competency Coordinator		
Planning & Environment Manager		
Environment Coordinator		
Sydney Metro Delivery Director		
Sydney Metro Environment Manager		
Sydney Metro Senior H&S Manager		
Sydney Metro Senior Communications Manager		
Independent Environmental Representative		
Sydney Metro Engineering Assurance Manager		
Sydney Metro Safety Assurance Manager		
ISA Coordinator		
ISA Lead		
North Sydney Council		(02) 9936 8100
EPA Environment Line		131 555
SafeWork NSW		131 050
NSW Health		(02) 9391 9939 (office hours) or 0491 227 423 (after hours)
Fire and Rescue NSW		1300 729 579
(or 000 if an emergency)		
WIRES Wildlife Rescue		1300 094 737

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1 DOCUMENT PURPOSE

The purpose of this fauna and flora management procedure is to minimise the distribution and occurrence of weeds and protect existing street trees adjacent to and near the construction site.

2 CONSTRUCTION OVERVIEW

Construction activities which have the potential to impact upon fauna and flora includes:

- Services;
- External works;
- Landscaping; and
- Over station development enabling works.

3 POTENTIAL IMPACTS

The following adverse impacts to flora and fauna may arise during construction activities:

- Proliferation of weeds on the site;
- Transfer of weeds from site to other areas in the Crows Nest area;
- Damage to existing street trees.

4 FLORA AND FAUNA ENVIRONMENTAL PERFORMANCE OUTCOMES AND MANAGEMENT OBJECTIVES

The Chatswood to Sydenham Submissions and Preferred Infrastructure Report identified the following environmental performance outcomes for construction:

- The project would minimise impacts to biodiversity.

The Chatswood to Sydenham Construction Environmental Management Framework identifies the following flora and fauna management objectives for construction:

- Minimise impacts on flora and fauna.
- Design waterway modifications and crossings to incorporate best practice principles.
- Retain and enhance existing flora and fauna habitat wherever possible.
- Appropriately manage the spread of weeds and plant pathogens.

5 ROLES AND RESPONSIBILITIES

A summary of the specific responsibilities for air quality management specific to each role are specified in Table 5.1.

Table 5.1 Summary of roles and responsibilities

ACTION	RESPONSIBILITY
▪ Performance and compliance with the CEMP and tree and weed management procedure. ▪ Implement measures and plan works to retain all trees wherever feasible. ▪ In the event of the requirement for tree trimming or clearing engage the project arborist to prepare a tree report in accordance with the requirements of CoA E6. Provide the tree report to DPIE for approval prior to the commencement of any pruning or clearing. ▪ Arrange for replacement tree plantings in consultation with Council.	Construction Manager Planning & Environment Manager
▪ Visual inspections to determine if mitigation measures are needed or successful ▪ Implementation of mitigation measures ▪ Recording implementation of mitigation measures	Site Supervisor
▪ Identifying trees and establishing Tree Protection Zones ▪ Environmental inspections ▪ Recording and reporting on effectiveness of mitigation measures ▪ Disposal of weeds	Environmental Coordinator
▪ In the event of tree trimming or clearing, prepare a Tree Report including: a. a description of the conditions of the tree(s) and its amenity and visual value; 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 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.	Project Arborist
▪ Undertake pre-clearing inspections of any vegetation to be pruned or cleared. ▪ Prepare post clearing reports detailing the outcomes of pruning and clearing activities.	Project Ecologist

6 MITIGATION AND MANAGEMENT MEASURES

The following mitigation and management measures would be implemented during construction to minimise the potential for adverse impacts to flora and fauna:

6.1 TREE MANAGEMENT

- The Environmental Coordinator must identify all trees along the road verge adjacent the site that need to be protected, trimmed or removed.
- Australian Standard AS 4970-2009 (Protection of trees on development sites) must be consulted when installing any tree protection.
- An adequate tree protection zone (TPZ) must be established around trees that are retained. The TPZ must consider the trunk, crown and root zone. TPZ is calculated by multiplying trunk diameter at breast height (DBH) by 12.
- Where encroachment into the TPZ is unavoidable (for example excavation, compacting or trenching), minor encroachment of up to 10% of the overall TPZ is acceptable, provided that the tree is healthy and there is sufficient space adjacent to the TPZ for the tree to compensate for changes to its growing environment.
- If trimming or clearing of trees is required during construction, the Planning & Environment Manager would engage a qualified arborist to prepare a Tree Report in accordance with Condition of Approval E6. The tree report would be reviewed and approved by DPIE prior to the trimming or removal of any vegetation.
- A pre-clearing inspection will be undertaken prior to any native vegetation clearing by a suitable qualified ecologist and the Planning & Environment Manager (or Environment Coordinator as delegate). The pre-clearing inspection will include, as a minimum:
    - Identification of hollow bearing trees or other habitat features;
    - Identification of any threatened flora and fauna;
    - A check on the physical demarcation of the limit of clearing;
    - An approved erosion and sediment control plan for the worksite; and
    - The completion of any other pre-clearing requirements required by any project approvals, permits or licences.
- Written authorisation must be provided by the Planning & Environment Manager and Project Ecologist following completion of the pre-clearing inspection permitting the pruning or clearing work to proceed.
- Clearing will follow a two-stage process as follows:
    - Non-habitat trees will be cleared first after sign-off of the pre-clearing inspection; and
    - Habitat trees will be cleared no sooner than 48 hours after non-habitat trees have been cleared. A suitably qualified ecologist will be present on site during the clearing of habitat trees. Felled habitat trees will be left on the ground for 24 hours or inspected by the ecologist prior to further processing.
- A post clearance report, including any relevant Geographical Information System files, will be produced by the Project Ecologist that validates the type and area of vegetation cleared including confirmation of any hollows impacted and any corresponding nest box requirements to offset these impacts.

6.2 FAUNA MANAGEMENT

- The local WIRES group and / or veterinarian would be contacted if any fauna is injured on site or require capture and / or relocation.
- All waste receptacles on site would be covered and regularly collected to prevent the potential for attraction of vermin.

6.3 WEED MANAGEMENT

- All mobile plant and vehicles must be free of any mud or organic material, prior to arriving or departing from site.
- Ensure all soil, plants or other materials entering the site are free of weeds and pathogens.
- Areas of weed infestation to be identified by the Environment Coordinator prior to ground disturbance and management measures included on the ECM, e.g. disposal of weeds at an appropriate facility.

7 RECORD MANAGEMENT

The following compliance records would be kept by the Environmental Coordinator:

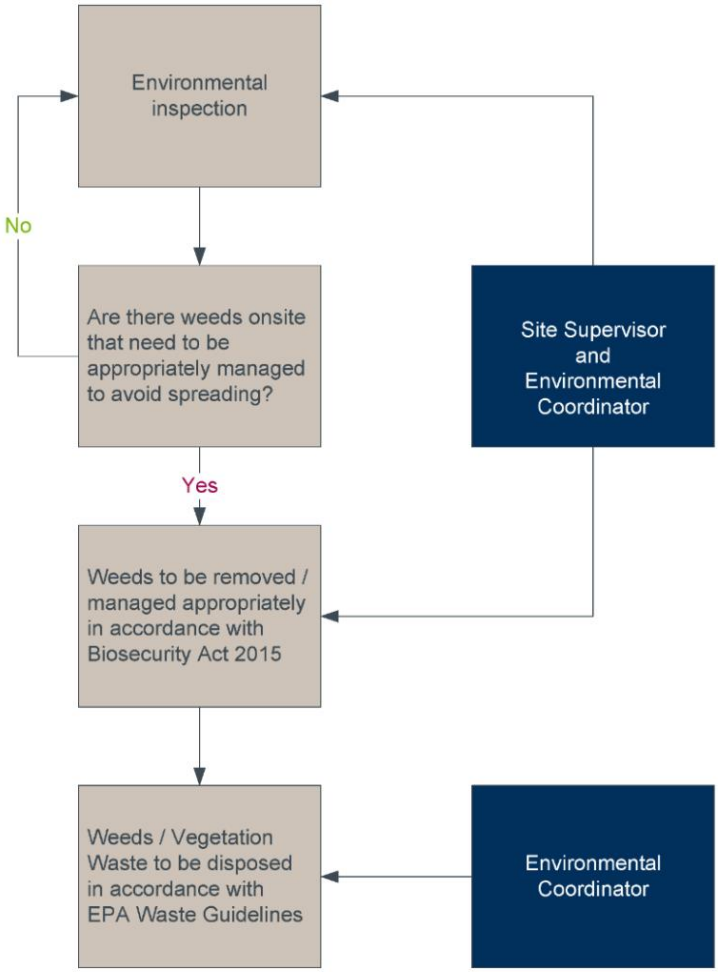
- Records of pre-clearing inspections undertaken;
- Records of the release of the pre-clearing hold point by the Planning & Environment Manager and Project Ecologist; and
- Records of ecological inspections undertaken.

APPENDIX A: WEED MANAGEMENT DIAGRAM

Weed Management Diagram

Castor oil bush

Sticky weed



Resources:

- Weeds of national significance: https://weeds.dpi.nsw.gov.au.
- North Sydney Council biosecurity weeds: https://www.northsydney.nsw.gov.au/Waste_Environment/Bushland_Wildlife/Biosecurity_Weeds.
- North Sydney Council weed profiles: https://www.northsydney.nsw.gov.au/Waste_Environment/Bushland_Wildlife/North_Sydney_Weed_Profiles.
- NSW Department of Primary NSW WeedWise application (AppStore and Google Play)

Lantana

Parthenium weed

Artichoke thistle