



# NEOEN Solar Farm Project Weed Management Plan

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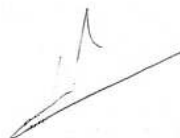
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# 1 INTRODUCTION

## 1.1 Purpose

The purpose of this Weed Management Plan (WDMP) is to provide a strategy to control weed impacts during construction in the Solar Farm project.

This Weed Management Plan shall be read in conjunction with the *PL-EV-01 Environmental Management Plan*.

## 1.2 Document Responsibilities

Responsibility	Date	Role	Name/ Signature
Development		HSE Coordinator	
Review		Project Manager	
Approval		Project Director	

Any person may request updating of this Plan.

## 1.3 Document Amendment and Distribution

This document shall be reviewed as follows:

- As requested by Management Review
- When there is a change of method and/or technology that may affect the accuracy of this document; or
- When there has been a significant event to which this document was relevant; or
- As a result of a non-conformance resulting from an audit

Document amendments and distribution will be conducted as per detailed in the *PL-CO-01 Project Management Plan* and the *PL-QA-02 Records Management Plan*.

New and amended documentation issued after the initial approval and distribution of this plan to controlled copy holders shall be identified in the *FS-QA-RG-06 Document Control Register*. Revision details shall be recorded in the *Revision Status Section* of this plan.

All changes to documents shall be reviewed and approved by the same function that performed the original review and approval and as per the cover of this plan, unless specifically designated otherwise.

### 1.3.1 Revision Status

Revision	Revision Date	Issued Date	Nature of modification
0	YYYY/MM/DD	YYYY/MM/DD	Issued to Tender
1	YYYY/MM/DD	YYYY/MM/DD	Contract Award revision
2			
3			
4			
5			
6			
7			

8			
9			
10			

## 2 DEFINITIONS

<b>BYCA</b>	Bouygues Construction Australia Pty Ltd
<b>EMP</b>	Environmental Management Plan (PL-EV-01)
<b>WDMP</b>	Weed Management Plan (PL-EV-03)

## 3 ORGANISATION

### 3.1 Responsibilities and Authorities

The Project Organisational chart and overall roles and responsibilities are outlined in the EMP. The key responsibilities for Weed Management are as follows:

#### 3.1.1 Project Manager

- Ensuring appropriate resources are available for the implementation of the WDMP

#### 3.1.2 HSE Coordinator

- Responsible for providing assistance and advice to the Project Engineers and Environmental Coordinators to fulfil the requirements of this Plan, assessing data from inspections, monitoring and reporting, and providing project-wide advice to ensure consistent approach and outcomes are achieved
- Investigating potential weed management issues/controls and consulting with the (project/client) contract administrator to develop appropriate controls for existing weeds
- The HSE Coordinator is also responsible for the review and update of this Plan

#### 3.1.3 General Superintendent

- Identifying, analysing and treating the risks weekly and before commencing works each day to ensure that the appropriate controls are implemented and effective; thus controls may be increased or decreased as required
- Ensuring all controls are implemented, maintained and effective
- Ensuring all incidents of weed growth/invasion are reported to the HSE Coordinator and relevant Authority where required

#### 3.1.4 All Workers on Site

In relation to Weed management, all workers on site are required to:

- Implement and maintain all applicable control measures
- Report any potential and/or actual incidence of weed contamination

### 3.2 Legal Requirements

The following Acts, Regulations and Standards are applicable to this Project:

- Noxious Weeds Act 1993 (NW Act);

- Native Vegetation Act 2003 (NV Act);
- Pesticides Act 1999;
- Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RMS Projects (September 2011);

### **3.3 Contractual Requirements**

BYCA have identified the most critical Environmental Contractual requirements for the project, these are:

#### ***Parkes & Griffith***

- Establish and maintain a mature weed free vegetation buffer around the site
- Following any construction or upgrading on site, ensure the ground cover is kept free of weeds

#### ***DUBBO: South Keswick***

- While acknowledging some vegetation will be required to be removed, mitigation measures to minimise potential adverse impacts to the environment (including flora and fauna) will be implemented which includes:
  - Dealing with any noxious weeds under the Noxious Weeds Act 1993 No. 11

## **4 COMPETENCE, TRAINING AND AWARENESS**

As stated in the EMP all project personnel, subcontractors and consultants will receive training in the group and personal environmental obligations during the *Site Inductions* and *Toolbox Talks*. From time-to-time staff may also attend specific training sessions, when necessary, by the HSE Coordinator.

## **5 WEED MANAGEMENT**

### **5.1 Objectives**

The environmental objectives with regard to weed management during construction are:

- Meet statutory obligations in relation to weed management
- Minimisation and management of impacts on existing vegetation community and natural environment in and beyond the Project area
- No introduction of new weed species to previously non-infected areas
- No spread of weed species beyond those areas already infested

### **5.2 Potential Environmental Impacts**

The key potential impacts arising from the introduction and spread of weeds in the Project area are:

- Destruction of terrestrial and aquatic habitats through prevention of seedling recruitment
- Changes to abundance of indigenous fauna as a result of impacts on indigenous vegetation and waterways

### **5.3 Management and Contingency Mitigation Measures**

The following Weed Management measures will be implemented:

- This WDMP will be implemented, revised and updated as required
- Report immediately to relevant authorities any incident related to weed management on the project and areas around it, as per the *PR-CO-04 Incident Management Procedure*
- Regular inspection of the works to ensure procedures and precautions are in place to minimise risk to human health and the environment
- The development of a contingency response if monitoring indicates a risk to sensitive receptors or human health
- Signage will be used where necessary to identify and mark weed infested areas
- Prior to disposal of any weed material to landfill the contractor must obtain written confirmation from the landfill operator stating the landfill can and will accept the weed material
- The HSE Coordinator and the Project Manager will be notified if any Declared Plants are discovered
- Topsoil stockpiled for extended periods (>28 days) must be evaluated and treated to prevent weed infestation. Stockpiles may be vegetated, covered or sprayed with a soil binder
- Stockpiles exposed for extended periods (longer than three months) will be evaluated and managed to maintain biological activity and prevent weed invasion such as vegetation by direct seeding and with seed species compatible with local conditions
- All personnel will be educated on the importance of weed management and associated management measures as part of the induction and training program
- Implement any specific conditions applied to the project by regulatory authorities
- Ensure machines and vehicles are brushed down before moving between different sites

**Reference Site specific Weed Management:**

- **Appendix 2 – Parkes Noxious Weeds Report**
- **Appendix 3 – Griffith Noxious Weeds Report**
- **Appendix 4 – South Keswick Noxious Weeds Report**
- **Appendix 5 – Narromine Noxious Weeds Report**

The success of management strategies will be reviewed on a regular basis to confirm its continued suitability for the site. Should the risk to the environment or to human health change during the construction period, management options will be reviewed.

## 6 IMPLEMENT CONTROLS

### 6.1 Weed Management Control Measures

Environmental control measures together with responsibilities for identified actions to minimise and mitigate Weed impacts during construction are outlined below:

**Table 1 - Weed Mitigation Measures**

Source/Reference			
Mitigation Measure	Responsibility	Timing	Records
<b>Pre-Construction</b>			
Incorporate discussion on Weed Management, impacts and mitigation measures into Site Induction.	General Superintendent	Pre-Construction	Project Site Induction
Review Ecological Reports for potential weed sites and plan	General	Pre-Construction	Noxious Weeds

their control/removal.	Superintendent		Report (Appendix 2-5) FS-EV-AT-01 Environmental Inspection
Ensure machines and vehicles brought to site are clean prior to starting the works. If any plant/vehicle needs to be transferred to another site, it needs to be inspected and brushed down to ensure no transference of potential weed material	HSE Coordinator/ General Superintendent	Pre-Construction	FS-EV-AT-04 Weed Hygiene Form (Appendix 1)
<b>General Construction</b>			
Ensure construction activities are designed and operated to minimise the potential for weed invasion and to comply with the requirements of the Pest Plants and Animal Act 2005.	General Superintendent	Ongoing	FS-EV-AT-01 Environmental Inspection
Construction activities are not to occur outside the site to limit the possibility of weed ingress into sensitive areas.	All Employees	Ongoing	FS-EV-AT-01 Environmental Inspection
Undertake ongoing visual monitoring for weeds (e.g. site inspections) to assess the effectiveness of mitigation measures.	General Superintendent	Ongoing	FS-EV-AT-01 Environmental Inspection
Ensure all constructions vehicles are clean and free of excess soil/debris prior to off-Site removal. Utilise wash down bays as provided.	General Superintendent	Ongoing	FS-EV-AT-01 Environmental Inspection
Report all incidents of weed invasion to General Superintendent.	All Employees	Ongoing	FS-EV-AT-01 Environmental Inspection FS-EV-IM-01 Environmental Incident Report & Investigation
Ensure incidents are effectively responded to and that incidents are reports are recorded.	General Superintendent	As Required	FS-EV-IM-01 Environmental Incident Report & Investigation
<b>Weed Management</b>			
Weed control is to occur in all areas rehabilitated as part of the project.	General Superintendent	As required	FS-EV-AT-01 Environmental Inspection Noxious Weeds Report (Appendix 2-5)
<b>Specific Controls for Identified Weeds</b>			
Refer to site specific Noxious Weeds Report			Noxious Weeds Report (Appendix 2-5)

## **7 INSPECT AND TEST**

### **7.1 *Monitoring, Inspection and Reporting***

Daily visual inspections of the construction site will be undertaken by the HSE Coordinator and construction personnel to identify any potential weed management issues. Any actions to be undertaken as a result of site inspections will be recorded in the *FS-QA-RG-02 Corrective & Preventative Actions Register*.

All inspections will be conducted as per the *PL-EV-01 Environmental Management Plan*. Weed inspections will form part of FS-EV-AT-01 Environmental Inspection.

## **8 RECORDS**

A record shall be maintained as per *PR-QA-01 Document Control and Record Management Procedure*.



## Appendix 1 Weed Hygiene Form

**Note:** This form must be completed:

- For all vehicles and mobile equipment entering all BYCA Project areas; and
- For all vehicles and mobile equipment exiting weed risk areas and declared weed risk areas.

<b>Contractor company:</b>			
<b>Contractor representative:</b>			
<b>Contractor contact details:</b>	<b>Phone:</b>		<b>Email:</b>
<b>Intended works area:</b>			
<b>Equipment/vehicle make and model:</b>			
<b>Equipment/vehicle number/registration:</b>			

The following areas have been inspected and are free from dirt and vegetation:	Please Tick			Comments
	Y	N	N/A	
Internal areas (cabin)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External areas - panels / trays etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Radiators and filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dust bowls and cyclones (drill rigs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sump / engine guard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Buckets / blades / tines etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Running gear / bash plates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tyres / wheels / wheel arch / tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Undercarriage / other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Prior to exiting areas known to be contaminated with Declared Plants or Significant Environmental Weeds the Contractor shall washdown vehicles and mobile plant in designated areas</b>				
Vehicle wash down completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Contractor sign-off		BYCA sign-off (to confirm inspection)	
<b>Name:</b>		<b>Name:</b>	
<b>Position:</b>		<b>Position:</b>	
<b>Signature:</b>		<b>Signature:</b>	
<b>Date:</b>		<b>Date:</b>	

**Appendix 2**      ***Parkes Noxious Weeds Report***

**Appendix 3**      ***Griffith Noxious Weeds Report***

**Appendix 4**      ***South Keswick Noxious Weeds Report***

**Appendix 5**      ***Narromine Noxious Weeds Report***