



Government of **Western Australia**  
Department of **Water and Environmental Regulation**

## Consultation summary

A Guide to Preparing Revegetation Plans for Clearing  
Permits under Part V of the *Environmental Protection Act*  
1986

Department of Water and Environmental Regulation

March 2018

Department of Water and Environmental Regulation  
168 St Georges Terrace  
Perth Western Australia 6000  
Telephone +61 8 6364 7000  
Facsimile +61 8 6364 7001  
National Relay Service 13 36 77  
[www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)

© Government of Western Australia

March 2018

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. Requests and inquiries concerning reproduction and rights should be addressed to the Department of Water and Environmental Regulation.

#### **Disclaimer**

This document has been published by the Department of Water and Environmental Regulation. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Department of Water and Environmental Regulation and its employees are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

*This publication is available at our website [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au) or for those with special needs it can be made available in alternative formats such as audio, large print, or Braille*

# Contents

Contents .....	1
Introduction.....	2
Stakeholder submissions.....	3
Key Issues .....	3
Key Issue 1: Geographical focus and flexibility in approach .....	3
Key Issue 2: Alignment with clearing permit conditions and existing management arrangements .....	4
Key Issue 3: Duplication of reporting and data requirements .....	4
Key Issue 4: When is revegetation considered complete? .....	4
Key Issue 5: Completion criteria and completion targets .....	5
Key Issue 6: Definitions .....	5
Other matters.....	7
Scope of the guide.....	7
Quadrats	7
Schedule and Budget .....	7
Procedural .....	7

## Introduction

*A Guide to Preparing Revegetation Plans for Clearing Permits under Part V of the Environmental Protection Act 1986* (the guide) sets out the Department of Water and Environmental Regulation's (DWER) recommended approach to preparing a revegetation plan where revegetation is proposed as an offset or required as a condition of a clearing permit granted under the *Environmental Protection Act 1986* (EP Act).

In 2016, following a review by the then Department of Environment Regulation, the guide was revised to provide improved guidance on the preparation of a revegetation plan, including revegetation completion criteria and monitoring reports.

The revised guide was released for public comment from 23 November 2016 to 31 January 2017.

This report sets out DWER's response to the key issues raised during the consultation.

In summary, respondents generally sought more flexibility in the different methods, techniques and approaches that could be considered on a site-by-site basis, and not just those illustrated in the guide. The guide has been amended to reflect this flexibility.

Other amendments have been made to provide clarity around definitions, process, to minimise duplication; and to update references.

DWER thanks all respondents to this consultation process which has informed finalisation of the guide.

## Stakeholder submissions

Ten submissions were received during the consultation period as listed in the table below.

### *Consultation submissions*

	Respondents
1	BHP Billiton Iron Ore Pty Ltd
2	Chamber of Minerals and Energy
3	City of Rockingham
4	Department of Mines and Petroleum
5	Floora de Wit and Lyn van Gorp
6	James Hesford
7	Main Roads WA
8	Roy Hill Iron Ore Pty Ltd
9	Society for Ecological Restoration Australasia
10	Water Corporation

The key issues and other matters raised are discussed below.

## Key Issues

### **Key Issue 1: Geographical focus and flexibility in approach**

Several respondents noted the draft guide:

- a. appears focused on the Southwest Botanical Province, Swan Coastal Plain or other Southwest forest ecosystems, although varying techniques are used across the state; and
- b. should be amended to allow for consideration of other methods, techniques and approaches, for example:
  - data requirements and completion criteria;
  - specific data analysis approaches and use of specialists;
  - differing methods for providing electronic information to DWER; and
  - the selection of reference sites which is limited to areas in excellent or very good condition or better.

### Response

The guide sets out DWER's approach for the preparation of a revegetation plan, and recommends data requirements, completion criteria, data analysis and use of certain specialists. Some techniques and methods are also illustrated.

The guide has been amended to clarify the flexibility for consideration of alternative techniques, methods and approaches to be determined on a site-by-site basis, and the

site's characteristics and location. Further information on different types of techniques and methods is available in publications referred to in Sections 7 and 8 of the guide.

The guide has been amended to reflect that electronic information may be provided through a range of methods.

In relation to the selection of reference sites, the guide defines 'revegetation' as the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area. In this context, the use of 'Very good' or 'Excellent' condition reference sites is considered appropriate.

### **Key Issue 2: Alignment with clearing permit conditions and existing management arrangements**

Three respondents sought clarification regarding the alignment of the guide with current and future clearing permit conditions.

One respondent commented that in many cases, permit holders already have an existing operation-wide weed management plan.

#### Response

Clearing permit conditions apply for the duration of the clearing permit, unless an amendment is approved by DWER. Where an approved revegetation plan is made a condition of a new or an amended clearing permit, DWER will ensure that the approved revegetation plan and the clearing permit conditions are aligned.

The guide has been amended to clarify that a revegetation plan may refer to an existing weed management plan if appropriate for the site, a copy of which must be provided to DWER.

### **Key Issue 3: Duplication of reporting and data requirements**

Two respondents noted the duplication of reporting requirements in Sections 4 and 6, as well as the data requirements in Tables 1 and 5.

#### Response

The contents of Tables 1 and 5 have been combined into Table 1, *Example data and methods of collection*.

Sections 4 and 6 have been retained as Section 4, introduces the EP Act reporting requirements for clearing permits, while Section 6 provides detailed guidance on the monitoring methods, schedule and maintenance, and contingency measures.

### **Key Issue 4: When is revegetation considered complete?**

One respondent noted at Section 5.4 that revegetation "is generally considered complete once the completion criteria have been met, maintained and monitored for a minimum of two years". The respondent noted that the requirement for revegetation

was previously considered complete once completion criteria were achieved and/or after a period of 10 years of actions and monitoring.

Another respondent suggested that the guide should state the completion criteria must be reasonably achievable within the time period of the clearing permit. It may take many years after the expiry of the revegetation activity to achieve desired outcomes. DWER should ensure there are no conflicts between the permit conditions (expiry) and the permit's revegetation plan.

#### Response

Section 5.4 has been amended to clarify that revegetation is considered complete once the completion criteria have been met. DWER will ensure that the approved revegetation plan and the clearing permit conditions are aligned. The permit may be extended if the approved completion criteria have not been met before the permit expires.

### **Key Issue 5: Completion criteria and completion targets**

One respondent sought clarification on the relationship between completion targets and completion criteria.

One respondent suggested removal of the word 'minimum' from the third and fourth columns of Table 3 as not all values in these columns are minimum values. Another respondent commented that for criterion E (bare ground) the percentage given in the example completion criteria should be 15.75 per cent rather than 15 per cent.

#### Response

Section 5.4 distinguishes that completion criterion is based on the baseline floristic data and the completion target set for that criterion. Table 3 provides an example of completion criteria developed based on baseline data collected from a fictional reference site, Banksia woodland X, which is to be cleared, and the completion targets. The word 'minimum' has been removed from the third and fourth column headings.

Regarding the example completion criteria for criterion E, DWER notes that setting the completion criteria on bare ground to be no more than 15 per cent as recorded in the reference site meets the completion target.

### **Key Issue 6: Definitions**

Several respondents sought clarification of definitions used in the guide and in particular suggested:

- a. the need for consistency of definitions in the guide and current clearing permits;
- b. the guide should distinguish 'revegetation' which is used throughout the guide, from 'restoration', 'rehabilitation', and 'regeneration';
- c. 'mulching' should encompass the range of mulch types that can be applied to a revegetation area;

- d. given the variability of local conditions and seasonal weather events (for example cyclones) 'optimal time' for seeding and planting should be indicative;
- e. the definition of 'quadrat' should include reference to appropriate dimensions such as included in the EPA's *Technical Guidance on Flora and Vegetation Surveys for Environmental Impact Assessment* (2016) and be marked and measured;
- f. the definition of 'vegetation condition' should reference the EPA's *Technical Guidance on Flora and Vegetation Surveys for Environmental Impact Assessment* (2016); and
- g. 'environmental specialist' should provide for practitioners with ample local and relevant experience to provide advice, and the need for CEO approval creates additional administrative burden.

### Response

The definitions provided in the guide are generally consistent with those in current clearing permits. Where not consistent, the definitions set out in clearing permits take precedence for the time that the permit is valid.

A number of terms are broadly used and defined in the guide including revegetation, rehabilitation, regeneration, optimal times, mulching, quadrat, and vegetation condition.

The information provided in the guide is of a general nature as noted in Section 5.5 (Methodology) to allow for consideration of different techniques and approaches (for example rehabilitation, mulching types) on a site-by-site basis, and depending on the site's characteristics.

Further clarity in relation to definitions has been provided in the guide as follows.

Section 5.5 states that vegetation establishment should occur at the optimal time of year for that bioregion, or as otherwise specified in the clearing permit. If not specified in the clearing permit, the revegetation plan should detail the local or seasonal conditions that may influence the optimal time for seeding and planting.

Section 5.3 provides guidance of a general nature on quadrat quantity, placement and size and references relevant publications such as the EPA's *Technical Guidance on Flora and Vegetation Surveys for Environmental Impact Assessment* (2016).

The native vegetation rating scales by Keighery and Trudgen are relevant to the definition of 'vegetation condition' in the guide. The EPA's *Technical Guidance on Flora and Vegetation Surveys for Environmental Impact assessment* (2016) has been included in the references section of the guide.

The tertiary qualification and experience that is required to meet the definition of 'environmental specialist' are considered essential for the preparation of revegetation plans, subsequent to assessment of the revegetation plan by DWER. CEO approval is not required where both the tertiary qualification and experience requirements are met. The CEO has the discretion to approve an environmental specialist where one or both requirements are not met.



## Other matters

### Scope of the guide

One respondent suggested that the guide should apply only to high-risk, large-scale revegetation projects and/or off-site offset revegetation related to clearing of significant conservation areas.

One respondent commented that the guide only considers the return of native vegetation and suggested that consideration be given to instances where revegetation may not be achievable or is incompatible with the end land use (for example on pastoral land where a return to a pasture or fodder species may be relevant).

#### Response

The purpose of the guide is to set out DWER's recommended approach to preparing a revegetation plan where land revegetation is proposed as an offset or required as a condition of a clearing permit granted under the EP Act. The guide may be applied to different types and scales of revegetation.

An incompatible end land use is not likely to be the subject of a revegetation condition.

### Quadrats

One respondent queried why, in addition to monitoring quadrats, are permanent monitoring points to be established.

#### Response

Section 6 of the guide has been amended to replace the word 'points' with 'quadrats'.

### Schedule and Budget

One respondent suggested to remove the requirement to provide budget and funding source data.

#### Response

The revegetation schedule and budget source data aids DWER's assessment on the appropriateness of the commitments outlined in a proposed revegetation plan, including contingency measures, and whether these are achievable within the time and financial resources indicated.

### Procedural

Several respondents suggested that the guide include information on when in the clearing permit process the revegetation plan and completion criteria should be submitted and who approves.

#### Response

A revegetation plan that is required as a condition of a new or amended clearing permit, must be approved by DWER prior to the grant of the permit or amendment, and before clearing can commence.