From:

Kingsley Dixon < kingsley.dixon1@icloud.com>

Sent:

Friday, 2 December 2016 3:51 PM

To:

Strategic\_PolicyandPrograms

Cc: Subject: Newton, Vern (Rivervale) AUS; Tein McDonald SERA Comment on Revegetation Document

Attachments:

Feedbackform\_RevegGuide SEERA.doc

Hello

Thanks for the opportunity of reviewing your document

Attached are the collective comments from the Society for Ecological Restoration Australasia - the NGO representing industry, practitioners, community and restoration professionals in Australia.

When you have a look at the comments you will see that there are some fundamental issues that SERA feels need to be addressed in the revision - notably that the DER document must be structured around the document published in March by SERA (National Standards for the Practice of Restoration in Australia) and also published in the leading journal Restoration Ecology.

The changes based on cross referencing to the SERA Standards (and also the newly published Banksia Woodland Restoration Guide) are substantial as they go to the heart of what is revegetation and what are contemporary standards and practices. Importantly SERA highlights that for the unique species and ecosystems of WA we often do not have the technological know-how or capacity with current capability to restore or revegetate. Thus fundamental to success and as part of the off-set equation, investment will be required to generate the knowledge and know-how.

Finally SERA are at your disposal to assist in interpreting the Standards and also, as the lead author on the Banksia Woodland guide to be available to meet with you.

Many thanks

Yours sincerely

Kingsley Dixon Chair, Society for Ecological Restoration Australasia Chair, International Network for Seed Based Restoration Director, ARC Centre for Mine Site Restoration



## **Department of Environment Regulation**

## Feedback form

Draft guideline: A guide to preparing revegetation plans for clearing permits under Part V of the *Environmental Protection Act 1986* 

Respondent information					
Company or association represented by this submission	Your name				
Society for Ecological Restoration Australasia	Professor Kingsley Dixon for and on behalf of SERA				
Postal / business address	Email				
19 Jubilee Crescent City Beach 6015	Kingsley.dixon@curtin.edu.au				
Western Australia	Phone number				
	0428285565				
Why are you/your business or association interested in the draft guideline titled 'A guide to preparing revegetation plan for clearing permits under Part V of the Environmental Protection Act 1986'?  SERA is the peak NGO involved in the development of policy, science and practice in ecological restoration and rehabilitation. Through it's 400 members and associate organisations SERA represents contemporary social, scientific and policy perspectives in reinstatement of vegetation. Importantly in March 2016 SERA launched the first National Standards for the Practice of Ecological Restoration in Australia – this documen represents consultation over 3.5 with over 300 stakeholder engagements and partner contributors across 12 NGO's involved in the natural regeneration and restoration. The Standards should be core to this DER document.  Also just published is the Guide to Banksia Woodland Restoration by Stevens et al (UWAP) which is a key foundational document that is not referred to in this document but which is the 'state of the art' book on current technological approaches, concepts, principles and methods.  Consent to treat this submission as a public document  By making a submission, you are consenting to the submission being treated as a public document and being published on the department's website. Your name will be included but your contact address will be withheld for privacy.  If you do not consent to your submission being treated as a public document, you should mark it as confidential, specifically identify those parts which you feel need to be kept private, and include an explanation. The department may request that a non-confidential summary of the material is also given. It is important to note that even if your submission is treated as confidential by the department, it may still be disclosed under the Freedom of Information Act 1992 or any other applicable written law.  The department reserves the right before publishing a submission to delete any content that could be regarded as racially vilifying					
				I acknowledge that this submission will be treated as a public document	This submission is confidential

If you have marked your submission as confidential, please identify specific parts which you feel need to be kept private, and include an explanation.				

## Feedback on the draft guideline: A guide to preparing revegetation plans for clearing permits

Are there any parts of the draft guideline where the requirements are not clear? Please outline in the text box below, indicating the page, section number and title for each part being referred to.

SERA's comments are largely built upon the SERA National Standards for the Practice of Ecological Restoration in Australia and the soon to be launched (12 December, COP of the CBD) International Standards in Ecological Restoration. Since these Standards are now being adopted by the Federal Govt and in industry it would be prudent to ensure concurrence between the principles and practices of the Standards and the Revegetation Plans.

Thus SERA encourages DER to adopt the Standards as a guiding document with specifics highlighted below:

General comment: rather than just revegetation, SERA encourages the use of the term restoration so as to inform like for like when bushland is cleared or degraded by development.

Glossary: needs to also use the term restoration (see the document for other terms and definitions). Survey time: this should include all seasons as there is not single 'peak' time for species flowering (ie at relevant times throughout the year to ensure capture of all species).

Table 2 and Table 3: Section C – Herbs, sedges and grasses CAN be propagated effectively (including new direct seeding approaches). These taxa can be fundamental to keystone native pollinators such as buzz pollinating native bees (many species) as well as being socially important eg orchids and lilies. Thus N/A should be removed and counts included particularly in both Tables.

Section 5.5.1: this section is misleading in that it implies that techniques exist for all species and all ecosystems. There needs to be a clear statement that not all ecosystems and species can be revegetated and that targeted research is required to solve impediments. If we had all the technology and capacity we would see ecosystem restoration – which only occurs where excellent topsoil is appropriately stripped, store and replaced effectively. Importantly in an earlier section you imply that 'revegetation specialists' should be consulted – though laudable a caveat must be inserted that indicates that specialists are only as good as the knowledge relevant to a site, species and ecosystem. Therefore active dialogue will be necessary with relevant research bodies and organisation who do undertake or assimilate the latest knowledge or are capable of generating site, species and ecosystem specific technology and capacity.

Section 5.5.4: Weed control (as found by Kings Park research) needs to occur for at least 5 years post restoration. Residual seed banks, seed blow-in and faunal transport all lead to the need to ensure native plant cover (which takes 5 years) is sufficient to out-compete establishing weeds. MOST importantly, after the first fire, follow up weed control is CRITICAL. Long dormant weed seed banks will emerge and these need to be eliminated.

Section 5.5.6: this section needs more work – ordering of tubestock needs to be done at least 9 months prior to the planting month. Many species have seed that requires complex dormancy break etc – thus only a few specialist nurseries have the know-how.

Section 5.5.7: The new Guide to Banksia Woodland Restoration provides the best practice for topsoil use. This is a critical missing document and is foundational to ensuring topsoil is correctly used to maximise what can be outstanding biodiversity values and cost-effective restoration.

Ditto Section 5.5.8.

Case Studies: you have under-estimated the cost of revegetation – this is based on old principles of the simplest species whereas in contemporary Australia higher, more biodiverse standards are expected by the community. That is, like-for-like ecosystem revegetation. Thus these case studies should be workshopped to ensure they are realistic costings for the goals of a contemporary view of what quality is expected in a restored site. The Banksia Woodland Restoration Guide provides more realistic values.

Please provide other comments or suggestions in the text box below, indicating the page, section number and title for each part being referred to.