



South Australian Chamber of Mines and Energy

Native Vegetation Council Rangeland Assessment Manual

Submission to

DEWNR Native Vegetation Management Unit

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South Australian Chamber of Mines and Energy

Mines and Energy House | Level 1, 290 Glen Osmond Road, Fullarton, South Australia, 5063
T: +61 8 8202 9999 | F: +61 8 8202 9900 | sacome@sacome.org.au | www.sacome.org.au

Representing, promoting and protecting the resources industry of South Australia

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SACOME

The South Australian Chamber of Mines and Energy (SACOME) is the peak industry association for all companies with business interests in the resources industry in South Australia, including those with business, vocational or professional interests in minerals exploration, mining and processing, oil and gas exploration, extraction and processing, power generation, transmission and distribution, logistics, transport, infrastructure, and those with clients in these sectors.

Contact

Dr Nigel Long

Director, Industry & Government Advocacy

P: (08) 8202 9933

M: 0448 848 038

E: nlong@sacome.org.au

Executive Summary

The South Australian Chamber of Mines and Energy (SACOME) is pleased to have this opportunity to provide comment to the Department of Environment, Water and Natural Resources on the *Native Vegetation Council Rangeland Assessment Manual*.

Overall the view is that the method is a good step forward for the assessment of vegetation in the rangelands. The manual is easy to follow, acknowledges differences in the natural vegetation composition of the arid zone compared to the agricultural zone, and takes pastoral impacts into account. Use of the pastoral board assessment as a foundation for the methodology has been a practical modification and adds strength to the overall process.

The assessment approach and scoresheet provides more rigour and repeatability, and the underlying theory is considered sound.

The method also has a large desktop GIS component to determine all the sites that will need assessing and will require a large number of survey sites if an area consists of variable land forms. With an estimated 30 minutes to complete each sampling point, surveys are likely to be more costly.

Rangeland Assessment Manual

Section 1: Quick Reference Guide

SACOME has no comment on this section.

Section 2: Introduction

SACOME has no comment on this section.

Section 3: Preliminary Office Procedure

Application to areas without grazing gradient data

Where land tenure in the SAAL or AW Regions is perpetual lease or freehold (e.g. southern Flinders Ranges) there will not be a paddock layer or a grazing gradient as this information is derived from the Pastoral Lease Assessment Program which does not cover those parts of the rangelands.

Depending on the age of the grazing data collected, it may not factor in grazing gradients associated with artificial watering points (e.g. un-fenced free-form evaporation ponds) recently installed as part of petroleum industry activities (e.g. new oil facility).

Comment: Clarification is sought on how to manage assessments where grazing gradient information is unavailable or out of date.

Large Scale Activities

In paragraph 1 reference is made to 'large scale' activities.

Comment: Clarification is sought on what is considered 'large scale' in terms of hectares.

Section 4: Field Procedure

Assessment of linear patches

A potential area of discrepancy is when assessing a linear clearance, such as pipeline or powerline easement, in comparison to large blocks.

A linear patch will potentially score high landscape context scores due to the number of landforms and potential threatened ecosystems it may cross through despite having a generally low impact in comparison to a large block for a mine, waste rock landform or tailings storage facility. For example, a narrow water pipeline easement may cross through a wide range of habitats, due to its length. Notwithstanding pipelines can be more easily directed around significant vegetation areas, it would get the highest score for those variables even though they would remain largely intact. A mine and associated infrastructure might encompass an entire vegetation community for an equivalent area and may have a lower offset amount despite being theoretically a greater impact through complete loss of a threatened vegetation community or greater extent of intact remnant perennial vegetation. The Rangeland Assessment Scoresheets (Appendix B) does state that all areas will have a minimum conservation significance score of 1 which might override this factor, but this is unclear.

Further clarification is also required regarding the process (including stratification for selecting the appropriate number of sites) to assess a linear piece of infrastructure, as the current proposed rangeland assessment method is based on assessing a block of vegetation, rather than the vegetation to be disturbed within the narrow linear disturbance area. It is integral that it is captured accurately so that the SEB calculations reflect the actual impact of the disturbance, rather than the broader vegetation type.

Comment: Clarification is required on this matter. The sector wants to be assured that the assessment tool will provide scores that appropriately reflect the actual nature of clearance.

Section 4.2: Select the locations of watering points

Natural watering points may include a whole section of creek (if it is a permanent water source) or a group of mound springs. These natural features are subject to trampling, and are also of high conservation value. If, as suggested in this section, that sampling points are not to be located closer than 1 km to a watering point, the resultant data will not represent the whole value of land.

Comment: The term watering point is a bit ambiguous. Does a watering point include both natural and artificial watering points?

Section 4.3: Completing the Rangeland Field Assessment

Is there the potential for the method to undervalue the habitat value of mature trees, particularly *Eucalyptus coolabah* (coolabah) and *Eucalyptus camaldulensis* (redgum), and the difficulty replacing them (e.g. long time to maturity)? For example, grassland or shrubland in a floodplain with most species present could achieve an equivalent score and SEB obligation to a coolibah woodland where the understorey has been moderately impacted by grazing. This is despite the potentially greater loss of habitat and difficulty in replacing the coolibah woodland.

Comment: The Native Vegetation Management Unit should undertake some testing of the method in these environments to clarify whether such undervaluation occurs. If this is the case, an additional metric may need to be considered in the vegetation condition scoring to account for habitat value of mature trees.

Section 4.3.2: 'STEP 2'

If assessing a new development site (*e.g.* new well in an existing field), which has a fixed point, it may not be possible to move the survey area to avoid impacts from infrastructure.

Comment: Advice is sought on how this type of situation should be managed.

Section 4.3.3.2: Landform type

Springs are not included as a landform type.

Recommendation: Springs should be included as they are of high ecological value.

Section 4.3.3.4: Vegetation stratum

Vegetation stratum to be selected for presence/absence includes shrubs of 1 to 3m high. However the datasheet refers to tree/shrub height of 1-2.5m or >2.5m.

Comment: The datasheet and manual need to be consistent.

Section 4.3.3.5: '2) Utilisation'

Figure 8 provides a depiction of the three utilisation states used as an estimate of grazing pressure.

Comment: To provide better clarity in estimating utilisation the manual should include photographic examples.

The final paragraph makes reference to collecting a tally of plants or a percentage score, suggesting there is an option. The hard copy datasheet appears to allow this option, however there is no mechanism to add a percentage score on the electronic datasheet

Comment: The paragraph should clarify that a tally must be collected or the metrics required to enter a percentage score into the electronic datasheet.

Section 5: Filling in the Rangeland Assessment Scoresheet

Section 5.1.3: Percentage are protected in IBRA sub-region score

The reference to 'Appendix E' should be amended to refer to 'Appendix D'.

Section 5.3: Conservation significance scores

The method relies upon Biological Databases of South Australia (BDBSA) records, but often for rangelands there is a paucity of flora and fauna survey data. To account for this, the method requires the recording of threatened flora and fauna within 50km of the site within the last 20 years using BDBSA and Atlas of Living Australia data. It would seem there does not appear to be any filter for habitat type in the method. If the model does not include such a filter, habitat types within 50km of a sample point may not represent the habitat type within the site being assessed, but would be included for the calculation of biodiversity score for that site (either for the clearance or SEB). This could lead to clearance or SEB areas with biodiversity scores that are not reflective of their true value.

Recommendation: The method should include a filter for habitat type when assessing the broader 'site' for species of conservation significance to ensure calculations for biodiversity score are representative of the assessment site.

Section 5.3.1: Conservation significance of ecological community score

The reference to 'Appendix F' should be amended to refer to 'Appendix E'.

Section 5.3.2: Plant species of conservation significance

The reference to 'Appendix G' should be amended to refer to 'Appendix F'.

Section 5.3.3: Fauna species of conservation significance

Both references to 'Appendix G' should be amended to refer to 'Appendix F'.

Section 6: Submission of Datasheets and Scoresheets

Reference is made to 'Clearance Application or Regulation Report'.

Comment: Clarification is need on what 'Regulation Report' is being referred.

Section 7: Interpretation of Rangeland Assessment Scores

SACOME has no comment on this section.

General comments

1. To better assist in assessments the manual should provide more photographic examples of different sites that have been assessed, along with detail on the scores given to the sites (with full datasheet information if possible).

Alternatively this could be included in a companion document and/or on line.

2. The manual should provide examples of completed datasheets to guide assessors. Alternatively, this could be included in a companion document and/or on line.

Spreadsheet tool for SEB calculations

For completeness of the Significant Environmental Benefit (SEB) framework, it would be useful to have available a spreadsheet tool to assist in calculating and reporting total SEB, to be packaged alongside the Native Vegetation Council Bushland, Rangeland and Scattered Tree Assessment Manuals. The tool would include the following calculations in the *Guide for calculating a Significant Environmental Benefit*:

SEB points required to off-set clearances (Section 3).

Total SEB points provided for area assessed for on ground SEB (Section 5).

Payment into the fund (Section 7).

Termination or reduction of an SEB Area (Section 8).

Revising and publishing

Industry is appreciative of the opportunity to provide input into the process for developing the manual, and seeks ongoing consultation on future revisions. The manual and scoring have multiple inputs that each influence the overall outcome and final cost for a project. Each factor should be evaluated with real industry project examples that consider Cooper basin scenarios, to understand the overall impact of those changes.

Recommendation: Ongoing consultation is sought with the department regarding the manual and SEB calculator. The opportunity to review ongoing editions and identify the impact of the calculator from project examples is sought.

Datasheet

1. The formulas and details behind the datasheets remain unclear.

Comment: The datasheet is a simplified version of the Bushland model, with automated calculations that improves functionality for assessments. SACOME does suggest that the manual should include a greater level of detail on the formulas, information and assumptions behind the datasheets.

2. In Appendix A the biotic distribution indicators use tree/shrub height of >3m, whereas vegetation stratum uses indicator of trees/shrubs of >2.5m. Refer also to the previous comment under Rangeland Assessment Manual (Section 4.3.3.4) highlighting inconsistency in parameters.

Comment: Consistency between the manual and datasheet, and within the datasheet is necessary.

3. More information on combining multiple site scores to get Total Biodiversity Score is required.

4. The use of '>' symbols in the Field Datasheet, under the sections on 'Utilisation', 'Biotic disturbance indicators' and 'Physical disturbance indicators' boxes appear to be in error.

Comment: Where appropriate change '>' to '<'.

5. The list of Woody Perennial plants that are included in the field assessments is only available via the drop-down list in the electronic version of the Field Datasheet. This makes it difficult to know which species should be targeted during assessment and may lead to inefficiencies in data collection (i.e. collecting data on non-target species).

Comment: It would be helpful if the complete Woody Perennial Plant species list was provided as a separate document or included in the Appendices of the manual

Additional comments on the Guide for calculating a Significant Environmental Benefit

Section 3: Scale of impact table (p11)

1. Loss factor is not considered accurate for linear petroleum activities, where at least one stratum of the vegetation will not be impacted.

Comment: Petroleum activities must avoid remnant trees in the landscape by rerouting infrastructure around those features. The loss factor should be revised to 0.5, to be consistent with current accepted impact of loss.

2. Linear pipelines and tracks for petroleum should be able to benefit from the category related to linear infrastructure.

Comment: Petroleum activities require tracks to be constructed that may be greater than 3m wide (drainage additional to pavement), and consider that the loss factor should be accessible for those activities.