



Natural Resources Commission
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19 May 2009

To whom it may concern

Re: Proposed changes to Chapters 2 and 5 of the EOAM

The Western CMA appreciates the opportunity to comment on proposed changes to the Environmental Outcomes Assessment Methodology. The attached table contains the Western CMA's brief comments specific to the proposed changes to Chapters 2 and 5 of the EOAM.

A number of issues were raised by the CMA during the review and a written submission was made to the review panel. The issues raised by the Western CMA are included in Attachment 1.

The CMA looks forward to further involvement with the NRC regarding future changes to the EOAM.

Yours sincerely

A handwritten signature in black ink, appearing to read "D. Green", is written over a light grey, semi-transparent rectangular box.

Daryl Green
General Manager
Western Catchment Management Authority

Item number Recommended changes table	Western CMA comments
11 and 12	See attached comments under low condition definition.
13	Some shrublands like chenopod shrublands are not woody vegetation and need to be included in the non-woody definition.
62	The wording is unclear.
63	The thinning should be limited to the actual species that are over benchmark density not just the vegetation type.

ATTACHMENT 1

Western CMA issues raised during the review of the biodiversity EOAM.

Benchmarks

The benchmarks for the Western Catchment often have a broad range of values leading to the perception that benchmarks are meaningless figures. An example is a mid-storey cover benchmark in a Cobar Penneplain vegetation type was 0-30%. There is considerable difference in communities with no mid-storey cover and 30% foliage cover. This causes problem when these figures are compared with the clearing or offset site to make an assessment. Benchmarks in semi-arid areas require increased complexity to be more effective for site based comparisons and assessments. An overview of the reasons is provided below.

Across many landscapes in the Western Catchment the vegetation type remains the same but can vary greatly in density, cover at different strata and sometimes species diversity. The extremes are the ridges and the flats within the landscape. Within the biometrics and threatened species tools these areas are grouped as the same vegetation type and benchmark. It is very difficult to make a meaningful comparison of the extremes in the landscape with the broad benchmark that groups them together. Separate benchmarks need to be provided for landforms within vegetation types.

The seasonal variation has a much greater effect on the vegetation in semi-arid areas of the State. The vegetation groundcover and the number of native species will vary considerably within the annual seasons and across them. The foliage cover can also vary with different seasonal conditions. The change in cover and plant species number can vary over several years with some species in the semi-arid rangelands only appearing in wetter seasons that may occur once in 20 years.

The variation outlined means that the upper and lower benchmark figures needs to incorporate the long-term seasonal changes. This results in the figures being somewhat ineffective when the comparison is made to a measure of the benchmark characteristics at one point in time (and season). The benchmarks need to address the issue of seasonal variation to be more meaningful for the Western Catchment.

Where benchmarks are not available, particularly for thinning it is very difficult and extremely time consuming for the CMA to obtain benchmarks. If several experts were unable to decide on stem density benchmarks it is unreasonable to expect the CMA to do this as a quick job each time someone wishes to do a thinning PVP.

Benchmarks

Benchmarks play a pivotal role in the biodiversity assessment. The benchmarks are determined either by agency scientists determining good condition for a vegetation type/ group of vegetation types or a CMA officer using three reference sites of a vegetation type in 'good condition'.

- The use of benchmarks to assess biodiversity has a number of issues including:
 - The scale (average of a vegetation type with numerous samples) at which the benchmarks are determined varies to the scale by which the site condition information is collected (one sample of a vegetation type).
 - The vegetation types of the Assessment Methodology do not necessarily match the vegetation type being assessed. For example lignum in Walgett district of the Western CMA did not match any vegetation type within the biodiversity tool and others were sometimes a 'best fit' but were a variation to the vegetation type on the ground.
- Species composition is not considered as part of the benchmarks. This is an important characteristic of a vegetation type

- Seasonal variation in semi-arid areas means that a number of condition variables and sometimes vegetation type can change over time (even from one year to the next).
- If ranges for condition variables are used it makes it difficult to compare against site condition. For example a site may be assessed in a good season and at the low range of the benchmark but if in good condition should be at the high end of the range.
- The use of reference sites and general selection of sites to determine benchmarks is time consuming, very subjective and will cause inconsistencies.
- The condition variable of a vegetation type will naturally vary across a landscape and according to landscape features. This is not taken into account in the benchmarking process.

Landscape value

Landscape value is not assessed at appropriate scale when the largest radii does not even cover the proposed clearing. The assessment of landscape value within the biodiversity assessment is limited to assessing a landscape area of 1000ha. This concept of landscape originated from the Southern Tablelands and is not applicable in western NSW. This is an issue that been raised repeatedly and for many CMAs. It is not appropriate to continue changing this using 'judgement' or 'variation'. There needs to be a landscape value and regional value assessment that is appropriate for different areas of the state and reflects the landscape appropriately.

Single properties in the Western Catchment are tens of thousands of hectares. An appropriate scale for western NSW would be rangetype areas (based on published Land System data) or IBRA regions. It would be more appropriate for environmental benefits to be assessed within the natural boundaries rather than human imposed assessment zones as is the case with the EOAM.

Landscape value cannot be offset in an intact landscape.

Definition of low condition

The low condition definition is not applicable to landscapes with predominantly native vegetation and does not recognise the low condition of vegetation with greater canopy cover than the benchmark. The definition of vegetation condition assumes that vegetation in low condition will have a high cover of exotics. In a landscape that remains predominantly native it does not recognise low condition native vegetation.

Extensive areas of New South Wales although native vegetation, are not in good condition and can have detrimental environmental outcomes without intervention. Like over cleared landscapes in other parts of NSW the Western Division has a high degree of modification and in order to maintain biodiversity and prevent further land degradation human intervention is often required. The complexity of structure has decreased and species composition greatly altered in many landscapes across the Western Division. The change to structure and species composition needs to be considered in the definition of highly modified.

Threatened Species Assessment

- The assessment methodology does not allow any assessment of the benefits from vegetation management involving clearing.
- If characteristics are not present at the site a species is removed from the list even though clearing restore crucial habitat ie. Grasslands that were present pre 1750 and are now removed on a landscape scale due to scrub encroachment.
- The distribution and presence of some species is questionable. Some red light due to no loss of breeding habitat.
- Management response percentages cannot be justified and often require very large offsets unless excluding stock. The removal of stock will not always

improve habitat for many threatened species and other actions may be more effective.

- The actual threats to each species are not addressed in the assessment. A species in Western CMA may be threatened due to a loss of grasslands or introduction of foxes but the threatened species assessment assumes any clearing is going to cause further threats. It may be the case that if some clearing is allowed with offset actions that address the threat the species may increase in numbers.
- The threatened species assessment does not allow management of vegetation and habitat to be managed at a landscape scale.
- The threatened species tool needs to use appropriate data and focus on assessing the causes of threats. It also needs to assess impact at a landscape scale and the 'do nothing' scenario at the landscape scale.

Threatened Species data

There are concerns about the accuracy of some information in the Assessment Methodology including the percentage of a vegetation unit cleared (How was this determined?) and some of the information relating to threatened species. The Western CMA realises the difficulty in obtaining detailed information about threatened species but efforts need to be made to improve the information about habitat requirements and distribution.

The threatened species lists are based on predicting what is there based on habitat. In areas like the Western Catchment where there has been limited surveys and research the predictive method of assessment can often be inaccurate. The threatened species assessment could be more effective with increased knowledge about western species. Improved information may also allow the cause of a threatened species to be addressed rather than just preventing any clearing.

Offset areas

It may be appropriate to consider offsets in different vegetation types if the vegetation proposed to be cleared is a vegetation community with a high percentage remaining in the landscape and the offsets are of a vegetation type that has been over cleared.

Ecological Burning

Ecological burning was to be included in the native vegetation reforms as a protocol but has not been included in the Regulation or Assessment Methodology. The Assessment Methodology was not developed to assess burning nor is suitable to do so. The protocol should be reconsidered to provide a simple process to allow burning that is part of an ecological process for many Australian vegetation types.

Further work should be encouraged to improve information about the fire regimes for vegetation types or groups of vegetation types.

Change of a vegetation community due to external human disturbance

A PVP trial in the Western Catchment involved a proposal to clear dead lignum (on river no longer flooded due to development in Qld) to re-establish native grasses and shrubs. It highlighted that the AM does not address changing vegetation communities due to human disturbance.

In a situation where the vegetation condition and composition has been degraded in the past through management other than clearing invasive actions may be required to improve the native vegetation condition and restore it to its original state. The current biodiversity assessment was designed to assess clearing with negative impacts. It is not designed to assess clearing for the purpose of vegetation management and improvement. Potential a separate assessment could be designed for this.

Potential Assessment for Western CMA

The comments above focus on amending the current biodiversity assessment. The ideal would be for improvements to be made to the current biodiversity assessment and additional methodologies be added to assess landscape plan approach and defined vegetation management where an appropriate streamlined assessment is appropriate. Examples of vegetation management that should be assessed using a simplified separate methodology include ecological burning and improvement of vegetation condition and composition involving clearing.

In landscapes where only a small percentage has been cleared but vegetation condition change are the issue, clearing could be allowed up to a defined percentage with offsets to improve overall vegetation condition. The clearing would have to consider condition of native vegetation and provide benefits for native vegetation across the landscape, particularly relating to the 'patchiness' of the landscape. This is a clear objective of the Native Vegetation Act. The highly cleared landscapes and high value vegetation would need to be protected with offsets and conservation agreements.

This approach could allow biodiversity assessment to be included as part of landscape plans and would need to map out all proposed native vegetation actions and result in overall maintenance or improvement of the environment on a landscape scale. The plan would take into consideration proposed cropping and how it is incorporated in overall management, strategic grazing, rehabilitation of invasive scrub areas, conservation, feral animal control and erosion control. The integration of all activities would be considered and an assessment of outcomes would be made.