Catchment Management Authorities
CMA NEW SOUTH WALES

Native Vegetation Regulation 2005

Clause 28 Policy - Special provisions for long term environmental benefits

Policy for Management Techniques - Pasture Cropping, No Kill Cropping, Water Spreading, Water Ponding and Contour Furrowing that involve Minor Clearing of Native Vegetation in the Lachlan, Central West, Border Rivers-Gwydir and Southern Rivers Catchment Management Authority (CMA) areas

Introduction

Much of the native vegetation in NSW has been degraded due to changes in land cover and land management since European settlement. This has resulted in a reduction of groundcover, decline in vegetation condition including decline in native perennial vegetation, and decline in soil condition. These declines have caused a loss of biodiversity and increased susceptibility to wind and water erosion across large parts of NSW. Further areas of native groundcover are under threat from over-grazing through prolonged drought and further loss of topsoil from soil erosion.

This Policy, under Clause 28 of the *Native Vegetation Regulation 2005*, sets out the circumstances in which the management techniques of pasture cropping, no kill cropping, water spreading, water ponding and contour furrowing, which involve broadscale clearing of native vegetation within the meaning of the *Native Vegetation Act 2003*, may proceed without the need for assessment using the Environmental Outcomes Assessment Methodology (EOAM). In combination with conservation grazing practices, these management techniques improve the condition of native groundcover and prevent its long term degradation. These environmental benefits outweigh the short term environmental impacts of the clearing. This Policy only applies to minor clearing associated with these management techniques.

Part 1 Objective

This Policy sets out the circumstances in which minor clearing of native vegetation resulting from the application of certain management techniques is likely to improve the condition of native vegetation on the land and/or prevent the long term degradation of native vegetation on the land.

The Policy describes:

a) when clearing is considered minor clearing;
b) when the long term environmental benefits resulting from the improved condition of native vegetation on the land or the prevention of long term degradation of native vegetation on the land outweigh the short term environmental impacts of the clearing;
c) the management techniques that can be used under this Policy to restore and maintain native vegetation on the land.

Clearing to which this Policy applies may be exempt from the requirement for assessment in accordance with the EOAM and instead be assessed in accordance with this Policy.

Part 2 Application of this Policy

2.1. Policy

This is a Policy under Clause 28 of the *Native Vegetation Regulation 2005*.

2.2. Application

a) The Policy applies within the following geographical area:

i. The Area of Operations of the following Catchment Management Authorities, as defined in Schedule 2 of the *Catchment Management Authorities Act 2003*, other than land within the riparian buffer distances in Table 3.1 of the EOAM:

1. Lachlan Catchment Management Authority;
2. Central West Catchment Management Authority;
3. Border Rivers-Gwydir Catchment Management Authority; and
4. Southern Rivers Catchment Management Authority.

b) The Policy applies to clearing of the following native vegetation only:

i. groundcover that is below 90% of the benchmark for native species richness for the vegetation type.

Note: Clearing of native vegetation that is only groundcover which comprises less than 50% of indigenous species of vegetation, and not less than 10% of the area is covered with vegetation (whether dead or alive), is permitted clearing under the *Native Vegetation Act 2003*.

2.3. Exempt from requirement of assessment in accordance with the EOAM

Clearing that relates to vegetation and land to which this Policy applies is exempt from the requirement for assessment in accordance with the EOAM (except where components of such assessment are required by the Policy) if the Minister, or Catchment Management Authority as delegate of the Minister, is satisfied that:

a) the clearing is minor clearing (as described in Part 3 of this Policy); and

b) on the basis of this Policy, the clearing is likely to improve the condition of native vegetation on the land or prevent the long term degradation of native vegetation on the land; and

c) the long term environmental benefits resulting from the improved condition of native vegetation on the land or the prevention of long term degradation of native vegetation on the land outweigh the short term environmental impacts of the clearing; and

d) native vegetation will be restored and maintained on the land.

This Policy does not remove the requirement for a Property Vegetation Plan or Development Consent in accordance with the *Native Vegetation Act 2003*. Rather, an application for a Property Vegetation Plan relating to land and vegetation to which this Policy applies may be assessed in accordance with this Policy and Clause 28 of the *Native Vegetation Regulation 2005*.

2.4 Obligations under other relevant legislation

Clearing in accordance with this Policy does not remove obligations under other relevant legislation. Other legislation that may be relevant includes, but is not limited to:

- the *Environmental Planning and Assessment Act 1979* (includes Council LEP requirements);
- the *Threatened Species Conservation Act 1995*;
- the *Water Management Act 2000*;
- the *National Parks and Wildlife Act 1974* (e.g. in respect to Aboriginal heritage)
- the *Heritage Act 1977*;
- the *Soil Conservation Act 1938*;
- the *Western Lands Act 1901*;
- the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999.*

Advice on these matters should be sought (where relevant) from the local Council, Catchment Management Authority, Department of Environment, Climate Change and Water, Land and Property Management Authority, Commonwealth Department of Sustainability, Environment, Water, Population and Communities and independent legal advisors.

Note: The *Native Vegetation Act 2003* and the *Native Vegetation Regulation 2005* are certified under the *Threatened Species Conservation Act 1995* (see Division 4 of the *Threatened Species Conservation Act 1995*).

2.5. Meaning of words and expressions

Words and expressions in this Policy have the following meanings:

- *Benchmark for native species richness* - means native species richness in the relevant vegetation type which has had relatively little recent or current alteration, disturbance or modification by humans.
- *Catchment* - means the area of operation of a Catchment Management Authority as defined by Schedule 2 of the *Catchment Management Authorities Act 2003*.
- *Condition of native groundcover* - means native species richness of groundcover species and percent cover of native groundcover.
- *Conservation grazing* - means the use of domestic livestock as a management tool to improve condition of native groundcover.
- *Contour furrowing* - means creating furrows in land by mechanical means to catch water flowing over an area.
- **Groundcover* - means any type of herbaceous vegetation.
- *Management action* – means one or more management actions to be included in the Property Vegetation Plan to implement the requirements of Part 6 of this Policy.
- *Management technique* – means any one or more of the following techniques: pasture cropping, no kill cropping, water spreading, water ponding or contour furrowing.
- **Native vegetation* - means any of the following types of indigenous vegetation: trees, understorey plants, groundcover and plants occurring in a wetland.
- *No kill cropping* - means direct seeding of crops into living, perennial native pasture using zero till soil disturbance techniques and without using knock down herbicides. The crops grow with the pastures.
- *Pasture cropping* - means direct seeding of crops into living perennial native pasture using zero till soil disturbance techniques and knock down herbicides at sub-lethal rates. The crops grow with the pastures.
- *Rehabilitate* – means improving the condition of native groundcover and stabilising the soil surface (thus reducing soil erosion).
- *Residue* – means any organic vegetative matter remaining on the soil surface after the management technique is applied that is not living vegetation, such as leaf litter, sticks or logs.
- *Soil ameliorant* - means one or more materials applied to alter adverse soil chemistry to create suitable growing conditions for vegetation.
- Soil erosion - means the process by which soil is detached and transported from the land surface.
- *Stream* - means any river, creek, or natural watercourse, whether artificially modified or not, in which water flows, regardless of flow regime, in a defined flow path, bed or channel.
- *Water spreading* - means using shallow earth walls to divert or delay the movement of water across its natural flow path to increase infiltration of the soil by the water.
- *Water ponding* – means using shallow horse-shoe shaped earth banks to intercept surface water flow after rainfall, forming a shallow pond which traps soil and promotes growth of groundcover.
- **Wetland* - includes any shallow body of water (such as a marsh, billabong, swamp or sedgeland) that is: inundated cyclically, intermittently or permanently with water, and vegetated with wetland plant communities.
- *Zero till* - means sowing with minimal (less than 5%) disturbance to topsoil.

Note: Words and expressions with an asterisk (*) have the same meaning as in the *Native Vegetation Act 2003*.

Part 3 Minor Clearing

3.1. Clearing of native vegetation under this Policy is limited to minor clearing. Clearing will be considered minor if:

a) It is to the minimum extent necessary to undertake the permitted management technique; and

b) It is within the limits set by this Policy.

Part 4 Circumstances in which minor clearing of native vegetation is likely to improve native vegetation outcomes

4.1. The circumstances in which minor clearing of native groundcover is likely to improve the condition of native vegetation or prevent the degradation of native vegetation are as follows:

a) The clearing is directly associated with a management technique permitted by this Policy – i.e. pasture cropping, no kill cropping, water spreading, water ponding or contour furrowing; and

b) The management technique that clears native vegetation is only undertaken on land where the environmental outcome is improved or maintained for land and soil capability under Chapter 6 of the EOAM; and

c) The management technique that clears native vegetation must not be used on more than three (3) occasions in fifteen (15) years from the date the Property Vegetation Plan commences; and

d) The clearing directly associated with the management technique is limited to the smaller of the following areas:

   i. 500 hectares of native groundcover; or

   ii. 20% of the extent of native groundcover on the property to which the Property Vegetation Plan applies; and

e) If the Catchment Management Authority is satisfied that the minimum total groundcover, of which greater than 75% is native groundcover, has been achieved on the areas cleared under subclause 4.1d), then the clearing directly associated with the management technique may be carried out on areas in addition to the areas cleared under subclause 4.1d). These additional areas are limited to the smaller of the following areas:

   i. 500 hectares of native groundcover; or

   ii. 20% of the extent of the native groundcover on the property to which the Property Vegetation Plan applies.

   The minimum total groundcover levels are as follows:

   iii. For annual rainfall above 500mm, greater than 80% total ground cover; or

   iv. For annual rainfall between 400 – 500mm, greater than 60% total groundcover; or

   v. For annual rainfall below 400, greater than 50% total groundcover; and

f) The management prescriptions in Part 6 of this Policy are to be carried out pursuant to the Property Vegetation Plan relating to the land.

4.2. As a result of the conditions in clause 4.1, clearing carried out in these circumstances is likely to:

a) have long term improvement in condition and perenniality of native groundcover with short-term impacts on native vegetation; and

b) improve water use efficiency resulting in an increase of native groundcover that is sustainable in the long-term; and

c) improve filtration of water; and

d) rehabilitate the land by sowing native groundcover or creating soil conditions for seed recruitment to re-establish native groundcover naturally; and

e) prevent long term degradation of native groundcover; and

f) provide long term maintenance of native vegetation on the land.

Part 5 Other Long-term Environmental Benefits

5.1 Clearing under this Policy has the following additional environmental benefits:

a) minimisation of soil erosion through improvement of groundcover and the perenniality of the groundcover; and

b) protection of water quality through better groundcover vegetation of catchments; and

c) stabilisation of soil surfaces to protect soils and enhance perennial native vegetation.

5.2 The long term environmental benefits from clearing associated with the management techniques permitted under this Policy, which improve the condition of native vegetation and prevent the long term degradation of native vegetation, outweigh the short term environmental impacts of the clearing.

Part 6 Management Prescription

The management actions to the effect of those prescribed in this Part must be included in any Property Vegetation Plan applying to the land issued after an assessment in accordance with this Policy. The Catchment Management Authority may add additional management actions in a PVP on a case by case basis as it sees fit to ensure clearing permitted under this Policy improves or maintains environmental outcomes.

6.1. Restoration requirements

The landholder must undertake management actions prescribed in the Property Vegetation Plan to achieve minimum total groundcover levels, of which greater than 75% is native groundcover, unless there are documented extenuating circumstances. Minimum total groundcover levels are as follows:

a) for average annual rainfall above 500mm, greater than 80% total groundcover; or

b) for average annual rainfall between 400 - 500mm, greater than 60% total groundcover; or

c) for average annual rainfall below 400mm, greater than 50% total groundcover.

The CMA must be notified if extenuating circumstances occur that prevent the above minimum groundcover levels from being achieved over the period of fifteen (15) years from the commencement date of the Property Vegetation Plan.

6.2 Ongoing management

a) Conservation grazing techniques must be used and stocking rates must be managed such as to permit native groundcover to flower and set seed, and to not damage the structure of the soil surface.

b) Residue is to be maintained, and soil ameliorant used (where necessary).

c) A Property Vegetation Plan must include the management actions prescribed under Chapter 6 of the EOAM for the Land and Soils Capability Class that applies to the land.

d) The landholder must annually monitor groundcover following the application of the management technique(s) that clear(s) native vegetation approved in accordance with this Policy as follows:

   i. The monitoring is to be undertaken in accordance with the methods in Appendix A and be at the time of year when the proportion of the amount of indigenous vegetation to the amount of non-indigenous vegetation in the area is likely to be at its maximum.

   ii. All monitoring of groundcover by the landholder is to be conducted in a scientific and objective manner that is appropriate to the area proposed to be cleared and the species of vegetation that are present.

   iii. The landholder must retain (for at least 5 years after the clearing of native vegetation approved in accordance with this Policy), a record of the calculation of groundcover percentages carried out for the purposes of clause 6.1, subclause 4.1(d)(e) and 6.2(d)(i), consisting of:

      1. a map showing the area that was the subject of the monitoring; and
      2. a record of the season in which the monitoring was undertaken; and
      3. a statement as to how the calculation of percentage groundcover was made; and
      4. photographs that clearly show the type of groundcover in the mapped area, taken at the time the monitoring was undertaken.

e) The landholder must submit the annual record of monitoring to the relevant Catchment Management Authority.

f) The landholder must not clear native vegetation for routine agricultural management activities (RAMAs) on the land subject to this Policy, except when the landholder is clearing native vegetation for the following RAMAs:

   i. the operation and maintenance only of permanent fences only (as permitted by s. 22 and s. 11(1)(a) *Native Vegetation Act 2003* and cl 20 *Native Vegetation Regulation 2005*);

ii. the removal of noxious weeds under the *Noxious Weeds Act 1993* (as permitted by s. 22 and s. 11(1)(b) *Native Vegetation Act 2003*);

iii. the control of noxious animals under the *Rural Lands Protection Act 1998* (as permitted by s. 22 and s. 11(1)(c) *Native Vegetation Act 2003*);

iv. the clearing of feral native plant species (as permitted by s. 22 *Native Vegetation Act 2003* and cl 17 *Native Vegetation Regulation 2005*);

v. any activity reasonably considered necessary to remove or reduce an imminent risk of serious personal injury or damage to property (as permitted by s. 22 and s. 11(1)(i) *Native Vegetation Act 2003*).

The clearing of any vegetation in contravention of this clause is excluded from being an activity permitted to be carried out under Part 3 Division 3, s.22 of the *Native Vegetation Act 2003*.

6.3 Other requirements and restrictions

a) The introduction of non-native perennial vegetation is not permitted; and

b) The introduction of non-native annual vegetation is limited to that introduced by the management technique; and

c) The re-established native vegetation on land to which this Policy applies is to be identified as protected regrowth in a Property Vegetation Plan; and

d) The Property Vegetation Plan must be in perpetuity and registered on the title of the land to ensure the ongoing protection of the protected regrowth; and

e) The management techniques under this Policy must have minimal disturbance to soil at all times; and

f) Earth walls, earth banks and contour furrows must be designed and constructed as necessary to divert or catch water or both; and

g) The burning of native vegetation is not permitted unless authorised under the *Rural Fires Act 1997* in relation to:

   i. an emergency fire fighting act; or

   ii. in accordance with a bush fire management plan; or

   iii. in accordance with a bush fire hazard reduction certificate.

Part 7 Exhibition and Approval

This Policy was publicly exhibited from 12 October 2009 to 9 November 2009.

This Policy was adopted in accordance with Clause 28(2) of the Regulation under the *Native Vegetation Act 2003* by the Minister for Climate Change and the Environment on 24 February 2011.

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APPENDIX A – METHODS FOR ASSESSING GROUNDCOVER

What is groundcover?

Groundcover means any type of herbaceous vegetation.

Suggested assessment methods for groundcover alone

Landholders must use one of the assessment methods below to ensure the conditions prescribed in the Policy are met. Additionally, a photo point should be established with every assessment to provide visual evidence of rehabilitation and establish a known point for ongoing monitoring.

For any method used it is necessary to divide the area to be assessed into areas of similar groundcover appearance based on land use history, soils and vegetation type. In many cases this will simply mean that each paddock is assessed separately.

Assessment Method 1: Quadrat Method

This method uses a plastic, wooden or metal square (quadrat) of at least 0.5 square metre area (approx 71cm x 71cm) internal dimensions. The method is as follows:

a) Walk at random within each area to be assessed and throw the quadrat a short distance.

b) For each throw look only at the area within the quadrat and assess and record the following:

A = the percentage of total vegetation groundcover (includes live/dead plants & residues)

B = the percentage groundcover of live native plants

C = the percentage groundcover of live non-native plants

c) Take at least 10 random samples for every 100 hectares of an assessment area.

d) Calculate the percentage of the assessment area covered by all vegetation and residues:

$$\frac{\text{Sum of A} \times 100}{\text{Number of samples}}$$

e) Calculate the percentage of the living vegetation that is live native groundcover:

$$\frac{\text{Sum of B} \times 100}{\text{Sum of B + Sum of C}}$$

Assessment Method 2: Pointed Stick Method

This method is adapted from that used in the Prograze® program for assessing the botanical composition of pastures. The method is as follows:

a) Walk at random within each assessment area and throw a 30 cm long coloured stick with one pointed end a short distance.

b) For the ground at the pointed end of the stick record:

D = presence of any vegetation (includes live/dead plants & residues)

E = presence of living native groundcover vegetation

F = presence of living non-native groundcover vegetation

c) Take at least 50 random samples for every 100 hectares of an assessment area.

d) Calculate the percentage of the assessment area covered by all vegetation and residues:

$$\frac{\text{Sum of D} \times 100}{\text{Number of samples}}$$

e) Calculate the percentage of the live vegetation that is living native groundcover:

$$\frac{\text{Sum of E} \times 100}{\text{Sum of E + Sum of F}}$$

Assessment Method 3: Step Point Method

a) Before arriving at the site, mark a random straight-line transect on a map for every 100 hectares of an assessment area. This is to avoid subconsciously choosing a better or poorer part of the paddock. Once at the site, mark each end of the transect with a permanent marker so repeatable surveys can be done.

b) Make a 1mm wide mark on the toe of each boot.

c) Walk across the paddock following the transect and at each step record:

D = presence of any vegetation (includes live/dead plants & residues)

E = presence of living native groundcover vegetation

F = presence of living non-native groundcover vegetation

d) Take at least 50 consecutive steps for every straight-line transect.

e) For each assessment area, the relevant figures are calculated as per the Pointed Stick Method above.

Assessment Method 4: Wire Point Method

a) Mark out random straight-line transects for each assessment area as per the Step Point Method.

b) Walk across the paddock following the transect and at each step hold a straight 1 metre length of fencing wire vertically to the ground from the outstretched hand and, without looking, drop it to the ground.

c) At that point record:

D = presence of any vegetation (includes live/dead plants & residues)

E = presence of living native groundcover vegetation

F = presence of living non-native groundcover vegetation

d) Take at least 50 consecutive steps for every straight-line transect.

e) For each assessment area, the relevant figures are calculated as per the Pointed Stick Method above.

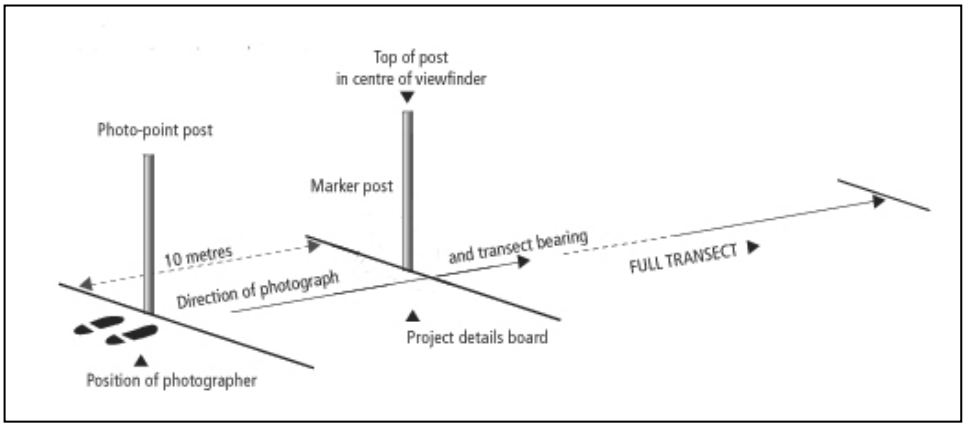
Permanent Photo-Points

Keeping a photographic record of your project area is the simplest way of monitoring it. A permanent photo-point consists of two steel posts fixed into the ground so that you have a permanent frame of reference.

A permanent photo-point ensures you take the same photo from the same spot every time and can therefore compare photos from year-to-year or season-to-season to see changes.

a) Mark the site by hammering two steel posts into the ground 10 metres apart (as shown in Diagram 1). Try to position these two posts along a north-south line so there is no shade or sun glare in your photo. Either use a GPS to record the posts location or mark their location on a property map.

Diagram 1 – Photo-point layout



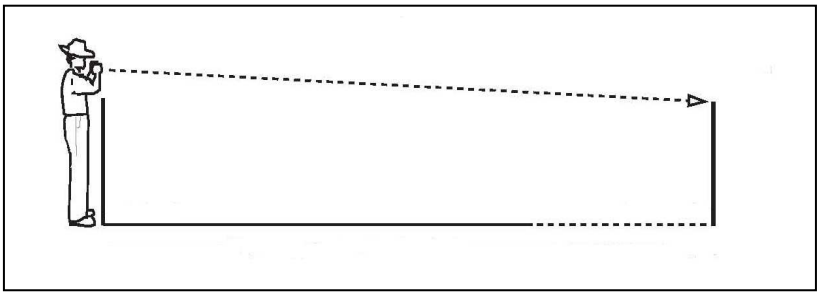
b) Using a board or thick cardboard, write in **very large** text the date, your property name, your PVP number and site number if appropriate.

c) Take your camera and select a setting that best allows you to capture the landscape. Make sure you use the same zoom level every time a photograph is taken, otherwise your photos will contain

different objects from photo to photo. We suggest you take a copy of the photo from your previous monitoring to ensure a similar field of view.

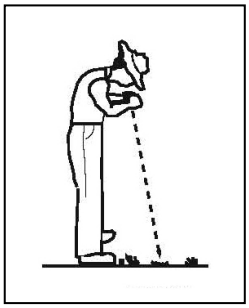
TAKE YOUR LANDSCAPE PHOTO - Standing at the first post, frame your scene in the camera viewfinder so that the top of the second post is exactly in the centre of the viewfinder, take your picture (Diagram 2).

Diagram 2 - How to take your landscape photo



TAKE YOUR GROUNDCOVER PHOTO – Standing beside your photo point post, take a photo of the ground as shown in the figure below (Diagram 3).

Diagram 3 – How to take your groundcover photo



d) If you are getting your photos printed at a photographic shop, get double prints so that you can keep one print as a record of your monitoring and attach the other to the groundcover assessment. If you are using a digital camera and downloading photos onto a computer, label the photo, print and attach to the groundcover assessment.

For more information: Contact your local CMA, or you may also:

Visit: www.environment.nsw.gov.au/vegetation Email: info@environment.nsw.gov.au Freecall: 131 555

Note: The groundcover assessment information has been adapted from INFO SHEET 12 (updated 23 August 2006) and does not constitute legal advice. Please seek specific advice.