NSW GOVERNMENT

Fact Sheet

Using the Native Vegetation Regulation 2013 Self-Assessable Codes

Assessing groundcover

Before you re-clear invasive native scrub on your property, there are important factors to consider, relating to the amount of groundcover required at a clearing site.

Establishing sufficient groundcover between stages of clearing is important for maintaining soil stability and biodiversity on your land.

If you are clearing more than 200 hectares of invasive native scrub (INS) extent on your property, and have already cleared 40 per cent of INS using one of the paddock scale clearing types, you are required to meet specific groundcover requirements on your property.

This fact sheet explains the requirements for establishing groundcover between stages of clearing when using the INS self-assessable code, and provides methods to assess re-establishment of groundcover on your property.

Paddock scale clearing types

Because of the scope of clearing and potential magnitude of disturbance caused by paddock scale clearing, the following clearing types have special requirements involving groundcover:

- **Clearing type c)** Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover
- **Clearing type d)** Clearing plants at paddock scale with temporary disturbance to soil and groundcover
- **Clearing type e)** Clearing plants at paddock scale with longer-term disturbance to soil and groundcover.

Groundcover level requirements

Once you have cleared the initial 40 per cent of the INS extent on your property using clearing types c), d) and/or e) you must wait until the required groundcover levels have been established and maintained for at least 12 months before undertaking more clearing.

If the required groundcover levels have not been maintained for 12 months, you will need to wait longer before undertaking further work.

To re-clear the original 40 per cent cleared, and any additional areas, your groundcover must be:

a) greater than 50 per cent cover, and
b) comprised of more than 75 per cent native groundcover.

To determine the groundcover level, you will need to do a groundcover assessment.

Groundcover assessment methods

Use one of the two methods outlined below to determine whether you have met the criteria for groundcover level. These methods are the:

a) step point method, and
b) quadrat method.

You should keep a record of your assessments and photos of the areas, to demonstrate that the required groundcover recovery was achieved in the area prior to undertaking clearing in the second increment, or re-clearing the first increment. Make sure you record the dates and locations for all photos taken.

A. Step point method

1. Prepare a field sheet like the example provided below (Step point method Field sheet), on which to record your observations.
2. Identify an area within the site where INS was treated which is typical in terms of the amount of cover and proportion of native groundcover.
3. Walk 100 steps in a straight line across the selected area.
4. At each step, record the groundcover at the tip of your boot, using these categories:
   a) native vegetation – grass, herbs, low shrubs (Column A), or
   b) non-native vegetation – grass, herbs (Column B), or
   c) bare ground and other; for example, rock (stone or gravel), litter or cryptogam (moss/lichen) (Column C).
5. Repeat this in at least four other areas across the cleared site, covering variations in groundcover where possible.
6. Work out the average of each column by dividing the total count for the column by the number of assessment lines you walked.
7. To calculate the overall percentage of groundcover in the area you have chosen, add the average from Column A to the average from Column B.
8. To calculate the percentage of the groundcover that is native vegetation, divide the average of Column B by the overall groundcover percentage from the previous step and then multiply by 100.

Step point method field sheet

Date of assessment: Assessor:

	Cover type			
	Column A Non- native	**Column B Native**	**Column C Bare ground and other**	Total
Example Assessment line	𝍸 𝍸 IIII (14)	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 I (51)	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 (35)	100
Assessment line – area 1				100
Assessment line – area 2				100
Assessment line – area 3				100
Assessment line – area 4				100
Assessment line – area 5				
Total count				
Average (Total count divided by the number of assessment lines)				

Average percentage of groundcover = average Column A + average Column B

RESULT: _____ Is the result greater than 50 per cent ground cover?

Average percentage of native groundcover as a proportion of total groundcover = average Column B ÷ (average Column A + average Column B) x 100

RESULT: _____ Is the result greater than 75 per cent native species?

B. Quadrat method

This method uses a square frame (quadrat) of at least 70 centimetres x 70 centimetres, as indicated in the image below. Such a quadrat is easily assembled using four thin pieces of PVC pipe cut to equal lengths and joined with tight-fitting elbow joints.

Karen Kneipp (Western LLS)

1. Prepare a field sheet like the example provided below (Quadrat method), on which to record your observations.
2. Within the site where INS was treated, select at least five areas of groundcover that are typical of the groundcover across the site, in terms of the amount of cover and proportion of native groundcover.
3. For each representative area (sample area), place the quadrat randomly 10 times.
4. For each quadrat placement estimate the:
   a) percentage of the quadrat that has vegetative groundcover (non-native and native groundcover), and record this in Column A (squares Q1 to Q10), and
   b) percentage of groundcover in the quadrat that is native, and record this in Column B (squares Q1 to Q10).
5. For each sample area and for each column, add squares Q1 to Q10 and divide these totals by 10 to yield the:
   a) average percentage of groundcover (native and non-native) across the sample area, and
   b) average percentage of native groundcover across the sample area.
6. For the whole site and for each column, add the averages from all sample areas and divide these totals by the number of sample areas to yield the:
   a) average percentage of groundcover (native and non-native) across the entire site, and
   b) average percentage of native groundcover across the entire site.

Quadrat method field sheet

Date of assessment: Assessor:

	Cover type											
	Column A percentage overall groundcover (native or non-native)						**Column B percentage native groundcover**					
Sample Area 1	Q1	Q2	Q3	Q4	Q5	Total	**Sample Area 1**	Q1	Q2	Q3	Q4	Q5	Total
	Q6	Q7	Q8	Q9	Q10	Average		Q6	Q7	Q8	Q9	Q10	Average
Sample Area 2	Q1	Q2	Q3	Q4	Q5	Total	**Sample Area 2**	Q1	Q2	Q3	Q4	Q5	Total
	Q6	Q7	Q8	Q9	Q10	Average		Q6	Q7	Q8	Q9	Q10	Average
Sample Area 3	Q1	Q2	Q3	Q4	Q5	Total	**Sample Area 3**	Q1	Q2	Q3	Q4	Q5	Total
	Q6	Q7	Q8	Q9	Q10	Average		Q6	Q7	Q8	Q9	Q10	Average
Sample Area 4	Q1	Q2	Q3	Q4	Q5	Total	**Sample Area 4**	Q1	Q2	Q3	Q4	Q5	Total
	Q6	Q7	Q8	Q9	Q10	Average		Q6	Q7	Q8	Q9	Q10	Average
Sample Area 5	Q1	Q2	Q3	Q4	Q5	Total	**Sample Area 5**	Q1	Q2	Q3	Q4	Q5	Total
	Q6	Q7	Q8	Q9	Q10	Average		Q6	Q7	Q8	Q9	Q10	Average
	Average across site						**Average across site**						

Average percentage of overall groundcover = average Column A

RESULT: _____ Is the result greater than 50 per cent groundcover?

Average percentage of native groundcover as a proportion of total groundcover = average Column B ÷ average Column A x 100

RESULT: _____ Is the result greater than 75 per cent native species?

More information

For more information, visit the Office of Environment and Heritage website at:
www.environment.nsw.gov.au/vegetation/

On this website, you can download the Regulation and further information that explains the changes to the Regulation.

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