



CLEARING OF INVASIVE NATIVE SPECIES

Order made under clause 38 of the Native Vegetation Regulation 2013

I, Robyn Parker, Minister administering the *Native Vegetation Act 2003*, by this Order under clause 38 of the Native Vegetation Regulation 2013, declare the species of native vegetation listed in Appendix 1 of Schedule A as an invasive species for all land in NSW to which the Native Vegetation Act 2003 applies.

In making this Order I am satisfied that each species of native vegetation listed in Appendix 1 of Schedule A is:

- a) within its natural range on the land; and
- b) the species is densely regenerating or is invading plant communities in which the species does not generally occur, which is causing decline in the structure or composition of the vegetation community.

This Order is made subject to the conditions in **Schedule A**.

The Honourable Robyn Parker

Minister for the Environment

Date:

Note:**Summary of Conditions**

The following is a broad summary of the conditions in Schedule A. See the conditions for details.

What can be cleared?

Invasive native species may be cleared if:

1. the species is a declared Invasive Native Species (that is, it is listed in Appendix 1); and
2. the species is densely regenerating or is invading plant communities in which the species does not generally occur, which is causing decline in the structure or composition of the vegetation community; and
3. the individual plant of each species to be cleared is equal to or less than the 'maximum DBHOB allowed to be cleared' listed in Appendix 1.

How can the vegetation be cleared?

Clearing must only be undertaken using one or more of the following clearing types:

- a) Management burning; or
- b) Clearing individual plants with nil to minimal disturbance to soil and groundcover; or
- c) Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover; or
- d) Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover.

How much can be cleared & can the clearing types be used anywhere?

Some limitations apply to each of the clearing types above. These are outlined in the table below.

Site characteristic	Clearing type			
	a)	b)	c)	d)
Proportion of INS extent permitted to be cleared by this clearing type	80%	80%	80% (40% x 2)	80% (40% x 2)
Q1. Non-INS trees and shrubs represent >50% of the total number of trees and shrubs	✓	✓	✗	✗
Q2. The vegetation is a threatened ecological community	✓	✓	✗	✗
Q3. The area to be treated is of low land degradation risk	✓	✓	✓	✓
Q4. The area to be treated is of moderate land degradation risk	✓	✓	✓	✗
Q5. The area to be treated is of high land degradation risk	✓	✓	✗	✗
Q6. The area to be treated is within 30 metres of a watercourse, estuary or wetland	✓	✓	✗	✗
Q7. The area to be treated is between 30 and 100 metres from a water course, estuary or wetland	✓	✓	✓	✗

Schedule A:

CONDITIONS FOR THE CLEARING OF INVASIVE NATIVE SPECIES

Purpose of these conditions

Clearing of invasive native species (INS) has been declared by the Minister for the Environment to be a routine agricultural management activity. As a result, the clearing of a declared invasive native species will be a routine agricultural management activity if it is carried out in accordance with the Order and the conditions of the Order set out in this schedule.

The intent of the code is to allow landholder to self-assess their needs for the control and management of INS. It should result in the re-establishing of native vegetation, or allow natural regeneration of more desirable native vegetation species to occur. Following INS clearing, the landscape should feature a mosaic of native vegetation types and structures.

A stream-lined Property Vegetation Plan (PVP) assessment is available for clearing proposals that cannot be cleared in accordance with this Order, or where the preferred clearing types or species are not permitted under this Order.

1. What can be cleared?

1.1. Invasive native species may be cleared if:

- a) the species is a declared invasive native species (that is, it is listed in Appendix 1); and
- b) the species is regenerating densely or is invading plant communities in which the species does not generally occur, which is causing decline in the structure or composition of the vegetation community; and
- c) the diameter at breast height over bark (DBHOB) of the individual plant to be cleared is equal to or less than the 'maximum DBHOB allowed to be cleared' listed for the corresponding species in Appendix 1.

1.2. If clearing by clearing type c) *Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover*; or d) *Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover*, the incidental clearing of non-invasive native vegetation less than 20cm DBHOB:

- is permitted and must be minimised and
- must not exceed 20 stems per hectare or 1% of the total number of trees and shrubs cleared, which ever is the lesser.

2. How can the vegetation be cleared?

2.1. Clearing must only be undertaken using one or more of the following clearing types:

- a) Management burning; or
- b) Clearing individual plants with nil to minimal disturbance to soil and groundcover; or
- c) Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover; or
- d) Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover.

3. How much can be cleared?

3.1. Up to 80% of the INS extent on the landholding may be cleared. That is, 20% of the INS extent must remain uncleared by any clearing type.

3.2. If clearing by clearing type: c) *Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover*; and/or d) *Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover* the initial clearing increment must not exceed 40% of the INS extent on the landholding. A further 40% of the INS extent may be cleared by clearing type c)

Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover, and/or d) Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover, if the area cleared in the initial clearing increment by these clearing types has achieved and maintained for a period of at least 12 months the following minimum basic groundcover recovery levels:

- a groundcover of greater than 50%; and
- the groundcover consists of greater than 75% native groundcover.

3.3. The initial 40% cleared (referred to in condition 3.2 above) may be re-cleared by clearing type c) *Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover, and/or d) Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover, providing:*

- all additional areas cleared have achieved the basic groundcover recovery levels as defined in condition 3.2 above, and
- a maximum of 40% of the INS extent is cleared of native groundcover at any one time.

Note: Proportion of INS extent able to be cleared by each clearing type

Clearing type a	80%		20%
Clearing type b	80%		20%
Clearing type c	40%	40%	20%
Clearing type d	40%	40%	20%

Key:

	Can clear this proportion of INS on the landholding in accordance with the conditions
	This proportion is a second increment for each clearing type
	This proportion must remain untreated by any clearing type

4. Can the clearing types be used anywhere?

- 4.1. Each of the clearing types must only be used where a tick indicates its availability for each of the site characteristics in the table below.

Clearing type availability for different site characteristics.

Site characteristic	Clearing type			
	a)	b)	c)	d)
Q1. Non-INS trees and shrubs represent >50% of the total number of trees and shrubs	✓	✓	✗	✗
Q2. The vegetation is a threatened ecological community	✓	✓	✗	✗
Q3. The area to be treated is of low land degradation risk	✓	✓	✓	✓
Q4. The area to be treated is of moderate land degradation risk	✓	✓	✓	✗
Q5. The area to be treated is of high land degradation risk	✓	✓	✗	✗
Q6. The area to be treated is within 30 metres of a watercourse, estuary or wetland	✓	✓	✗	✗
Q7. The area to be treated is within 100 metres of a watercourse, estuary or wetland	✓	✓	✓	✗

5. What other conditions apply?

General Conditions

- 5.1. Clearing carried out under the Clearing of Invasive Native Species Ministerial Order (INS Ministerial Order) must not result in a change of land use.
- 5.2. All native groundcover, retained individuals of the INS and all non INS (except for any non-invasive native vegetation less than 20cm DBHOB cleared incidentally under condition 1.2) must be retained following the clearing operation.

Conditions related to clearing types:

- 5.3. If clearing by clearing type *a) management burning*, then:
- clearing of non-INS must be limited to the minimum extent necessary to clear the INS; and
 - the clearing must not result in soil surface disturbance; and
 - the clearing must not result in the intentional introduction into the cleared area of any non-native vegetation.
- 5.4. If clearing by *b) clearing individual plants with nil to minimal disturbance to soil and groundcover*, Plants of the species listed in Appendix 1 as requiring retention (see column 3) are to be retained at the densities specified in Appendix 1, except where more than one species is present requiring retention. In this situation the total retention requirement for all species of less than the DBHOB specified in Appendix 1 does not exceed 20 stems per hectare. If there is more than one species present, the stems retained must reflect the proportion of total individuals for each species present.
- 5.5. If clearing by clearing type *b) clearing individual plants with nil or minimal disturbance to soil and groundcover*, the following limitations on how the clearing must be carried out apply:
- the clearing must be limited to clearing of individual plants of INS; and
 - disturbance to soil surface is to the minimum extent necessary to clear individual plants; and
 - any clearing of groundcover must be incidental in extent; and

- the clearing may not result in the intentional introduction into the cleared area of any non-native vegetation.
- 5.6. If clearing by clearing type *c) clearing plants at a paddock scale with nil to minimal disturbance to soil and groundcover*, the following limitations on how the clearing must be carried out apply:
- the clearing of groundcover and disturbance to soil surface must be limited to the minimum extent necessary, and
 - non-invasive species must comprise less than 10% of the total number of individual trees and shrubs cleared, and
 - the preparation and sowing of non-persistent annual exotic vegetation by direct drilling is permitted.
- 5.7. If clearing by clearing type *d) clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover*, the following limitations on how the clearing must be carried out apply:
- non-invasive species must comprise less than 10% of the total number of individual trees and shrubs cleared, and
 - the preparation and sowing of land with non-persistent annual exotic vegetation is limited to three occasions in 15 years from the date notification of the intention to use the Order.
- 5.8. If clearing by *c) Clearing plants at paddock scale with nil to minimal disturbance to soil and groundcover*, or *d) Clearing plants at paddock scale with temporary or longer term disturbance to soil and groundcover*, the following native vegetation retention requirements must be met:
- if more than 500 ha is to be cleared, then a minimum of 20% of the native vegetation on that area must be retained on each 500-hectare area within or between cleared areas. The native vegetation retained for the purposes of this provision may be included in the calculation of the 20% uncleared area of INS extent on the landholding;
 - the retained native vegetation may or may not include INS but must be part of the INS extent.

6. Definitions

Definitions in the INS Ministerial Order are as defined in the *Native Vegetation Act 2003*, and the *Native Vegetation Regulation 2013*

Acting invasively means that:

- a) the species is invading plant communities where it has not been known to occur previously, or the species is regenerating densely following natural or artificial disturbance; and
- b) the invasion and/or dense regeneration of the species is resulting in change of structure and/or composition of a vegetation community.

Density or densities means the number of plants per hectare.

Diameter at breast height over bark (DBHOB) means the diameter over the bark of the stem at 1.3 m above the ground.

Direct Drilling – means ‘A minimum tillage practice in which a crop or pasture is sown directly into untilled soil. Stubble or pasture may be reduced by burning or grazing, or retained. Weed control and the reduction of competition from pastures may be achieved by grazing, burning or herbicides. It is typically practiced in mixed farming areas with reliable rainfall.

Estuary means a semi-enclosed body of water having an open or intermittently open connection with the ocean, in which water levels do not vary with the ocean tide (when closed to the sea) or vary in a predictable, periodic way in response to the ocean tide at the entrance (when open to the sea).

INS extent means the extent of the areas on the landholding where:

- invasive native species are currently present; and

- areas on the landholding where they may not presently occur but where INS management is required to prevent their spread or recurrence.

Areas of non-native vegetation and areas of native vegetation not impacted by INS are not included in the INS extent on the landholding.

Groundcover means any type of herbaceous vegetation, native and non-native, living or dead.

Invasive Native Species - For the purposes of the INS Ministerial Order, 'invasive native species' means a plant species that satisfies the following criteria:

1. the species is listed in the INS database (Appendix 1); and
2. the species is acting invasively on the land to be cleared.

Land degradation risk – Land degradation risk is an indication of the level risk of land degradation that could occur as a result of INS clearing. There are three risk levels Low, Moderate and High. The risk level for the land to be cleared is determined by:

1. determining the appropriate risk category for the land to be cleared from the state wide land degradation risk map at Appendix 2, or by
2. applying the *Land Degradation Risk assessment methodology* at Appendix 3.

Landholding means:

- (a) A parcel of land; or
- (b) Several parcels of land which:
 - (i) are contiguous with one another or are separated from one another only by a road, river, creek or other watercourse, and
 - (ii) constitute or are worked as a single property, irrespective of whether those parcels are held under the same title or different titles or titles of different kinds.

Management burning is planned and controlled burning that is conducted for the purpose of managing invasive native species.

Native groundcover means living, native herbaceous vegetation.

Non-invasive native species means any native species that are not invasive native species, as defined in Section 1 above.

Watercourse is defined as a Strahler stream order 3 or above. The Strahler Stream Classification system is where waterways are given an "order" according to the number of tributaries associated with each waterway. The NSW Government recognises stream order 3 and above as likely to be valuable fish habitat, and hence could support viable fish populations. Please visit www.water.nsw.gov.au or your Local Land Services for further information.

Wetland means any type of shallow body of water (such as a marsh, billabong, swamp or sedgeland) that is: (a) inundated cyclically, intermittently or permanently with water, or (b) vegetated with wetland plant communities.

Zero till - means drilling of seed with minimal (less than 5%) disturbance to topsoil.

Appendix 1: Invasive native species database listing

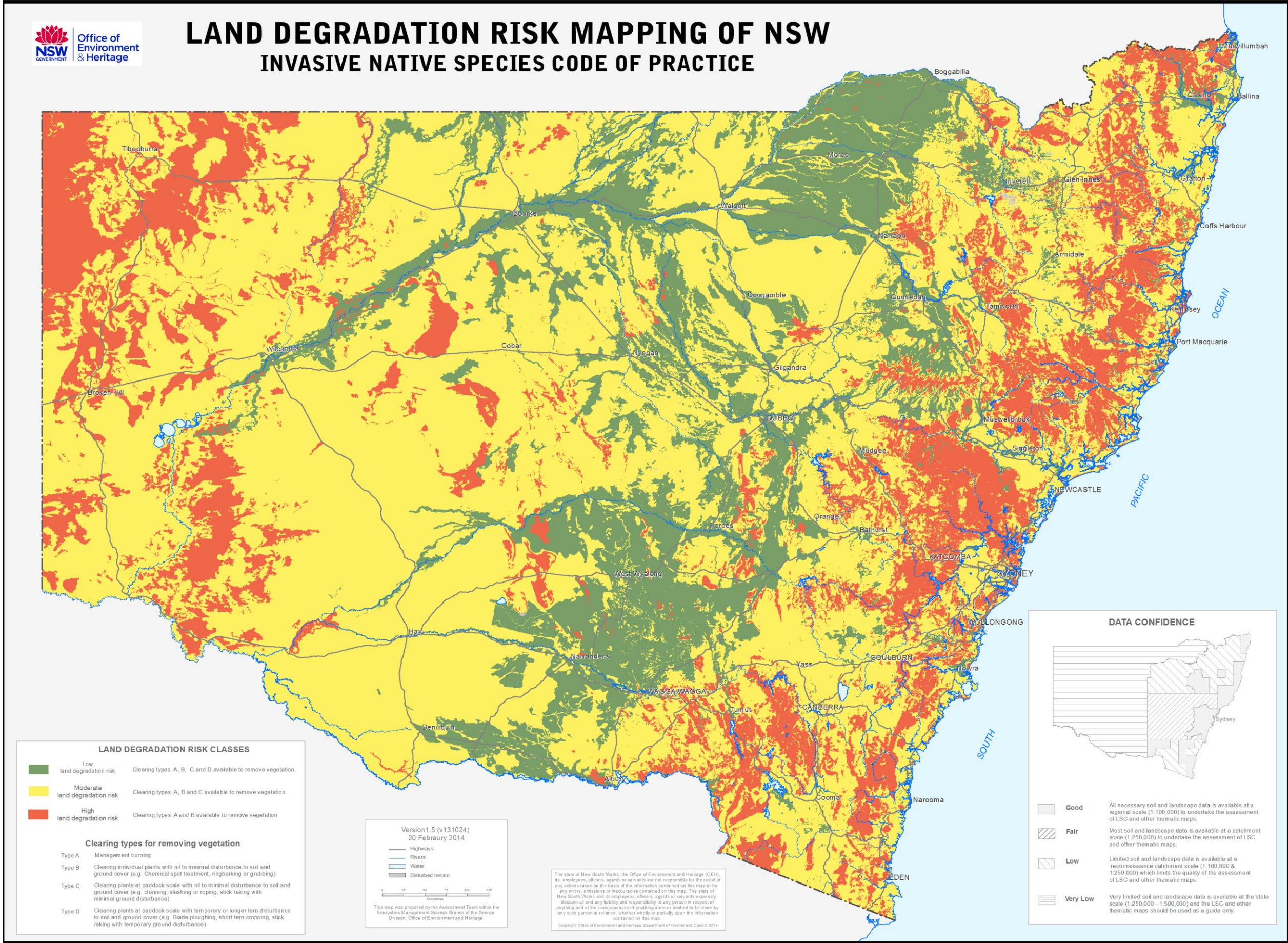
Invasive Native Species	Maximum DBHOB allowed to be cleared	Retention requirements when clearing by clearing type b) clearing of individual plants with nil to minimal disturbance to soil and groundcover (Number of plants per hectare to be retained)
<i>Acacia aneura</i> (mulga)	20 cm	20 stems under 20cm DBHOB
<i>Acacia deanei</i> (Deane's wattle) ¹	n/a	nil
<i>Acacia homalophylla</i> (yarran)	20 cm	20 stems under 20cm DBHOB
<i>Acacia mearnsii</i> (black wattle)	n/a	nil
<i>Acacia paradoxa</i> (kangaroo thorn)	n/a	nil
<i>Acacia salicina</i> (cooba or native willow)	20 cm	nil
<i>Acacia stenophylla</i> (black wattle or river cooba)	20 cm	20 stems under 20cm DBHOB
<i>Bursaria spinosa</i> (blackthorn) ²	n/a	nil
<i>Callitris endlicheri</i> (black cypress)	30 cm	20 stems under 30cm DBHOB
<i>Callitris glaucophylla</i> (white cypress)	30 cm	20 stems under 30cm DBHOB
<i>Cassinia arcuata</i> (Sifton bush)	n/a	nil
<i>Cassinia laevis</i> (cough bush)	n/a	nil
<i>Cassinia quinquefaria</i>	n/a	nil
<i>Casuarina cristata</i> (Belah)	20 cm	20 stems under 20cm DBHOB
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i> (narrow-leaf hopbush)	n/a	nil
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>	n/a	nil
<i>Dodonaea viscosa</i> subsp. <i>spatulata</i> (broad-leaf hopbush)	n/a	nil
<i>Eremophila bignoniiflora</i> (eurah)	n/a	nil
<i>Eremophila bowmanii</i> subsp. <i>bowmanii</i> (silver turkey bush)	n/a	nil
<i>Eremophila duttonii</i> (harlequin fuchsia bush)	n/a	nil
<i>Eremophila gilesii</i> (green turkey-bush)	n/a	nil
<i>Eremophila longifolia</i> (emu bush)	n/a	nil
<i>Eremophila maculata</i> (spotted fuchsia)	n/a	nil
<i>Eremophila mitchellii</i> (budda, false sandalwood)	n/a	nil
<i>Eremophila sturtii</i> (Turpentine)	n/a	nil
<i>Eucalyptus camaldulensis</i> (river red gum)	30 cm	20 stems under 30cm DBHOB
<i>Eucalyptus coolabah</i> (coolibah)	20 cm	20 stems under 20cm DBHOB
<i>Eucalyptus intertexta</i> (red box)	30 cm	20 stems under 30cm DBHOB
<i>Eucalyptus largiflorens</i> (black box)	20 cm	20 stems under 20cm DBHOB
<i>Eucalyptus populnea</i> subsp. <i>bimbil</i> (bimble box, poplar box)	30 cm	20 stems under 30cm DBHOB
<i>Geijera parviflora</i> (wilga)	20 cm	20 stems under 20cm DBHOB
<i>Kunzea ericoides</i> (burgan)	n/a	nil
<i>Kunzea parvifolia</i> (violet kunzea)	n/a	nil
<i>Leptospermum brevipes</i> (grey tea-tree, tea-tree)	n/a	nil
<i>Maireana microphylla</i> (eastern cotton bush)	n/a	nil
<i>Duma florulenta</i> (syns.: <i>Muehlenbeckia cunninghamii</i> & <i>Muehlenbeckia florulenta</i> (lignum))	n/a	nil
<i>Nitraria billardiarei</i> (Dillon bush)	n/a	nil

Invasive Native Species	Maximum DBHOB allowed to be cleared	Retention requirements when clearing by clearing type <i>b</i>) <i>clearing of individual plants with nil to minimal disturbance to soil and groundcover</i> (Number of plants per hectare to be retained)
<i>Olearia elliptica</i> subsp. <i>elliptica</i> (sticky daisy bush, peach bush)	n/a	nil
<i>Sclerolaena birchii</i> (galvanized burr)	n/a	nil
<i>Sclerolaena muricata</i> (black roly-poly) ³	n/a	nil
<i>Senna artemisioides</i> subsp. <i>X artemisioides</i> (syn.: <i>Senna</i> form taxon 'artemisioides' (silver cassia))	n/a	nil
<i>Senna artemisioides</i> subsp. <i>filifolia</i> (syn.: <i>Senna</i> form taxon 'filifolia' (punky bush))	n/a	nil
<i>Vachellia farnesiana</i> (mimosa)	n/a	nil

Notes:

1. *Acacia deanei* (Deane's Wattle) includes both subsp. *deanei* and *paucijuga*.
2. *Bursaria spinosa* (Blackthorn) includes both subsp. *spinosa* and *lasiophylla*
3. *Sclerolaena muricata* (Black Roly-poly)³ includes all subsp. *muricata*, *semiglabra* and *villosa*.

Appendix 2: Land degradation risk map



Appendix 3: Land Degradation Risk Assessment Method (DRAFT for TESTING)

Land Degradation Risk Assessment Method for INS Ministerial Order

The following land degradation risk assessment method may be used to determine the land degradation risk category for the purposes of the Clearing of Invasive Native Species Ministerial Order (INS Ministerial Order). The clearing types that are permitted depend on the land degradation risk category of the land to be cleared.

1. Introduction

The following land degradation hazards are assessed to determine a Land Degradation Risk Category (LD Risk Category) for use in relation to the application of the INS Ministerial Order:

- water erosion
- wind erosion
- shallow and rocky soils

The LD Risk Category is determined for each of these land degradation hazards. The overall risk level is determined by the highest risk level out of the three individual hazards.

2. Land Degradation Risk Categories

This simplified land degradation risk assessment process determines a risk category for the INS Ministerial Order.

The method can be used to classify any site into one of the following risk categories:

- **Low Land Degradation Risk Category**
- **Moderate Land Degradation Risk Category**
- **High Land Degradation Risk Category.**

3. Assessing water erosion hazard

Water erosion hazard is the susceptibility of land to soil erosion by moving water.

Slope, evidence of existing gully erosion and whether the site is a high run on area are used to determine the LD Risk Category for Water Erosion according to Table 1 below:

Table 1 Water erosion hazard criteria

Slope (%)	Land is a high run on area or there is evidence of existing erosion	LD Risk Category
0-3%	No evidence of rill and/or gully erosion	Low risk
	Evidence minor rill and/or gully erosion	Moderate risk
>3-8%	Not a water run on area and no evidence of existing gully erosion	Low risk
	Land receives a lot of water run off or there is evidence of existing gully erosion on the land	High risk
>8-25%	Not a water run on area and no evidence of existing gully erosion	Moderate risk
	Land receives a lot of water run off or there is evidence of existing gully erosion on the land	High risk
>25		High risk

4. Assessing wind erosion hazard

Wind erosion hazard is the susceptibility of land to the erosion of soil particles by wind.

Wind erodibility of soil (amount of clay) and average annual rainfall are used to determine the LD Risk Category for Wind Erosion according to Table 2 below:

Table 2 Wind erosion hazard criteria

Average annual rainfall	Wind erodibility class of surface soil	LD Risk Category
>300 mm	Low erodibility (> 13% clay) (loams, clay loams, clays) And Moderate erodibility: fine sandy loams, sandy loams (clay 6 to <13%)	Low risk
	High erodibility: loam sands, loose sands (clay< 6%)	Moderate risk
<300 mm	Low erodibility (> 13% clay) (loams, clay loams, clays)	Low risk
	Moderate erodibility: fine sandy loams, sandy loams (clay 6 to <13%)	Moderate risk
	High erodibility: loam sands, loose sands (clay< 6%)	High risk

5. Assessing shallow and rocky soil hazard

Shallow soils and rockiness increases the LD Risk Category.

Average soil depth and percentage exposure of rocky outcrops are used to determine the LD Risk Category for shallow and rocky soil hazard according to Table 3 below.

Average soil depth is the depth from the soil surface to bedrock.

Table 3 Shallow and rocky soils hazard criteria

Soil depth (cm)	Rocky outcrop (% coverage)	LD Risk Category
>50	0–30	Low risk
	30-50%	Moderate risk
	>50	High risk
0-50cm		High risk

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