

Regional
Vegetation Management Code
for
Ongoing Clearing Purposes
Channel Country Bioregion

25 June 2004



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1. Description of Region

This regional vegetation management code applies to the Channel Country Bioregion. The boundary of the Channel Country Bioregion is defined in digital form held by the Department of Natural Resources, Mines and Energy, and is illustrated in Figure 1.

The area covers approximately 23.3 million hectares, including areas of the shires of Boulia, Diamantina, Winton, Longreach, Barcoo, Quilpie and Bulloo. Approximately 91.7% of land in the Channel Country Bioregion is held under Leasehold tenures and 123 000 hectares is Freehold tenure (NRM&E DCDB 2004).

2. Regulatory background

This is a regional vegetation management code to be used for the assessment of development applications for clearing vegetation under the *Integrated Planning Act 1997*. It is prepared in accordance with provisions set out in the *Vegetation Management Act 1999* (VMA) and is to be applied in the circumstances where the VMA allows that an application for assessable clearing be accepted. The Chief Executive of the Department that administers the *Vegetation Management Act 1999* is responsible for assessing clearing applications made under that Act.

This code provides the basis, consistent with the purposes of the *Vegetation Management Act 1999*, for making decisions about vegetation.

Purpose of the *Vegetation Management Act 1999*

The *Vegetation Management Act 1999* states:

- ‘(1) The purpose of this Act is to regulate the clearing of vegetation in a way that—
- (a) conserves the following:
 - (i) Remnant endangered regional ecosystems
 - (ii) Remnant of concern regional ecosystems
 - (iii) Remnant not of concern regional ecosystems; and
 - (b) conserves vegetation in declared areas; and
 - (c) ensures the clearing does not cause land degradation; and
 - (d) prevents the loss of biodiversity; and
 - (e) maintains ecological processes; and
 - (f) manages the environmental effects of the clearing to achieve the matters mentioned in paragraphs (a) to (e); and
 - (g) reduces greenhouse gas emissions.
- (2) The purpose is achieved mainly by providing for—
- (a) codes for the Planning Act relating to the clearing of vegetation that are applicable codes for the assessment of vegetation clearing applications under IDAS; and
 - (b) the enforcement of vegetation clearing provisions; and
 - (c) declared areas; and
 - (d) a framework for decision making that, in achieving this Act’s purpose in relation to subsection (1) (a) to (e), applies the precautionary principle that

- lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment if there are threats of serious or irreversible environmental damage; and
- (e) the phasing out of broadscale clearing of remnant vegetation by 31 December 2006.

(3) In this section—
“environment” includes—

- (a) ecosystems and their constituent parts including people and communities; and
- (b) all natural and physical resources; and
- (c) those qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic or attributed scientific value or interest, amenity, harmony and sense of community; and
- (d) the social, economic, aesthetic and cultural conditions affecting the matters in paragraphs (a) to (c) or affected by those matters.’

3. Purpose of the code

The purpose of the Code is to provide performance requirements and, where appropriate, acceptable solutions that achieve the purpose of the *Vegetation Management Act 1999*.

4. Amendments of this code

Section 15 of the *Vegetation Management Act 1999* (VMA) states that the Minister may amend a regional vegetation management code without undertaking the required consultation if:

- ‘(a) the amendment is only to correct a minor error in the code, or make another change that is not a change of substance; or
- (b) the code states that an amendment of a stated type may be made to the code by amendment under this section and the amendment is of the stated type.’

The type of amendments that can be made to this code under Section 15 (b) of the VMA are:

- Protection of riparian vegetation associated with rivers identified under legislation regulating wild rivers;

5. Scope of applications assessed by this code

A vegetation clearing application will be assessed under this code if the applicant has satisfied the chief executive that the development applied for is for a relevant purpose listed in S.22A of the *Vegetation Management Act 1999*. The relevant purposes are:

- a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26;

- necessary to control non-native plants or declared pests;
- to ensure public safety;
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure;
- a natural and ordinary consequence of other assessable development for which a development approval as defined under the *Integrated Planning Act 1997* was given, or a development application as defined under the *Integrated Planning Act 1997* was made, before 16 May 2003;
- for fodder harvesting;
- for thinning;
- for clearing of encroachment;
- for an extractive industry;
- for clearing regrowth on leases issued under the *Land Act 1994* for agriculture or grazing purposes.

6. How to use this Code

The code is comprised of nine parts shown in Table 1.

Part A of the code contains performance requirements that must be met by all applications; no acceptable solutions are given.

Parts S, W, M, F, T, E, X and R of the code contain performance requirements that must be met by applications for particular purposes as shown in Table 1. The parts also contain acceptable solutions for meeting those requirements. The stated acceptable solution represents one way in which the relevant performance requirement may be met. Applicants who do not adopt the acceptable solution must show how they will meet the performance requirement. An applicant must meet each Performance Requirement by either:

- a) complying with the acceptable solution; or
- b) satisfying the assessment manager that the performance requirement is met through another solution proposed by the applicant.

Table 1 shows which parts of the code are used for each application purpose. Where the application is for multiple purposes over the same area, the applicant must meet all performance requirements for all of the purposes of the clearing. However, an application that is for clearing in regrowth on leasehold land for one or more of the purposes S, W, M, F, T, E, or X will be assessed under the code for the relevant purpose, and not under the part of the code for regrowth on leasehold land.

In determining whether an application meets the acceptable solution, or whether another solution provided by the applicant meets a performance requirement, the precautionary principle will be applied.

Properly made Development Applications for clearing vegetation made under the *Integrated Planning Act 1997* (IPA) are assessed using:

- Matters mentioned in Section 3.5.4(2) and (3) of IPA, which include:
 - The appropriate part of the code which relates to the purpose of the application; and
 - The laws that are administered by, and the relevant policies that are applied by, the Assessment Manager;
 - The common material as defined in IPA;
- The Property Vegetation Management Plan provided by the applicant;
- If there is a Property Map of Assessable Vegetation over the area which is the subject of the application, that Property Map of Assessable Vegetation;
- Regional Ecosystem or Remnant maps that apply to the area of land that is the subject of the application;
- Any further relevant information supplied by the applicant.

Table 1: Parts of the code

Purpose of application	Part of Code	Part
All applications	Mandatory Requirements for All Clearing	A
A project declared to be a significant project under the <i>State Development and Public Works Organisation Act 1971</i> , section 26	Requirements for Clearing for Significant Projects	S
Necessary to control non-native plants or declared pests	Requirements for Clearing for Weed or Pest Management	W
For establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure.	Requirements for Clearing for Management Activities	M
Clearing that is a natural and ordinary consequence of other assessable development for which a development approval as defined under the <i>Integrated Planning Act 1997</i> was given, or a development application as defined under the <i>Integrated Planning Act 1997</i> was made, before 16 May 2003.	Requirements for Clearing for Management Activities	M
To ensure public safety.	Requirements for Clearing for Management Activities	M
For fodder harvesting	Requirements for Fodder Harvesting	F
For thinning	Requirements for Thinning	T
For clearing of encroachment	Requirements for Clearing Encroachment	E
For an extractive industry	Requirements for Clearing for an Extractive Industry	X
For clearing regrowth on leases issued under the <i>Land Act 1994</i> for agriculture or grazing purposes, other than clearing for any other purpose listed above.	Requirements for Clearing Regrowth	R

7. Assessment codes

The performance requirements in Part A of this code must be met. No other solutions comply with this part of the code.

Part A: Mandatory Requirements for All Clearing

Performance Requirement
<p>PR A.1</p> <p>To conserve remnant endangered regional ecosystems, clearing does not occur in any “category 1 area” on a Property Map of Assessable Vegetation (PMAV), or where there is no PMAV, in any endangered regional ecosystem except where the Chief Executive is satisfied that the clearing is:</p> <ul style="list-style-type: none">• for a project declared to be a significant project under the <i>State Development and Public Works Organisation Act 1971</i>, section 26; or• necessary to control non-native plants or declared pests; or• to ensure public safety; or• for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or• for thinning; or• to remove encroachment; or• for an extractive industry.

Performance Requirement

PR A.2

To conserve remnant of concern regional ecosystems, clearing does not occur in any area shown as a “category 2 area” on a Property Map of Assessable Vegetation, or where there is no PMAV, in any of concern regional ecosystem except where the Chief Executive is satisfied that the clearing is:

- for a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- a natural and ordinary consequence of other assessable development for which a development approval as defined under the *Integrated Planning Act 1997* was given, or a development application as defined under the *Integrated Planning Act 1997* was made, before 16 May 2003; or
- for thinning; or
- to remove encroachment; or
- for an extractive industry.

PR A.3

To prevent loss of biodiversity, clearing does not occur to the extent that:

- the remnant extent of a not of concern regional ecosystem falls below 30% of its pre-clearing extent or 10 000 hectares in the bioregion; and
- the remnant extent of an of concern regional ecosystem falls below 10% of its pre-clearing extent; and
- the remnant extent of an of concern regional ecosystem falls below 30% of its pre-clearing extent where its remnant extent is less than 10 000 hectares,

except where the Chief Executive is satisfied that the clearing is:

- for a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- for an extractive industry.

Performance Requirement

PR A.4

To prevent the loss of biodiversity, clearing does not reduce the total extent of remnant vegetation in the Channel Country Bioregion to less than 90% of the pre-clearing extent of remnant vegetation of code area except where the Chief Executive is satisfied that the clearing is:

- for a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- for an extractive industry.

PR A.5

To prevent loss of biodiversity, clearing does not occur in an area which is identified on a map¹ prepared by the chief executive of the agency which administers the *Nature Conservation Act 1992* and certified for use for the purposes of this code by the chief executive of the Department of Natural Resources, Mines & Energy, as an area of essential habitat for a species of wildlife listed as vulnerable, rare, near threatened or endangered under that Act, except where the Chief Executive is satisfied that the clearing is:

- for a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- for thinning; or
- to remove encroachment.

¹ The map is held in digital form by the Department of Natural Resources, Mines & Energy and may be reduced or enlarged to show the essential habitat for a particular area.

Performance Requirement

PR A.6

To ensure clearing does not cause land degradation and to maintain ecological processes, clearing does not occur in Drainage Basin Sub Areas that have less than 30% of the area covered with remnant vegetation, unless the Chief Executive is satisfied that the clearing is:

- for a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- for thinning; or
- for an extractive industry; or
- for clearing regrowth on leases issued under the *Land Act 1994* for agriculture or grazing purposes.

Part S: Requirements for Clearing for Significant Projects²

Performance Requirement	Acceptable Solution
<p>PR S.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS S.1 S.1.1 Clearing does not occur in or within 200 metres of the static high water mark of, natural wetlands, lakes and springs; AND S.1.2 Clearing does not occur in land zone 3.</p>
<p>PR S.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.</p>	<p>AS S.2 Clearing does not:</p> <ul style="list-style-type: none"> a) isolate endangered and of concern regional ecosystems and natural wetlands. These areas must be linked to clumps of retained vegetation with corridors that are at least 200 metres wide; and b) Clearing does not occur in an area which is identified on a map³ prepared by the chief executive of the agency which administers the <i>Nature Conservation Act 1992</i> and certified for use for the purposes of this code by the chief executive of NRM&E, as an area of essential habitat for a species of wildlife listed as vulnerable, rare, near threatened or endangered under that Act; and c) reduce the extent of remnant vegetation to less than 50% of the pre-clearing extent on the property. A minimum of 50% of the remnant vegetation retained on the property must consist of: <ul style="list-style-type: none"> i) clumps with areas at least 50 hectares with a perimeter (metre) to area (hectare) ratio of no more than 200:1; and ii) corridors at least 200 metres wide between the clumps of remnant vegetation or between the clumps and retained vegetation on adjoining properties.
<p>PR S.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected to:</p>	<p>AS S.3 2.3.1 Clearing does not occur within:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or more; and b) 100 metres from each high bank of each

² Significant projects are those declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26.

³ The map is held in digital form by the Department of Natural Resources, Mines & Energy and may be reduced or enlarged to show the essential habitat for a particular area.

Performance Requirement	Acceptable Solution
<p>a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat.</p>	<p>stream order 3 or 4 ; and c) 50 metres from each high bank of each stream order 1 or 2 . AND 2.3.2 Clearing does not occur in land zone 3; AND 2.3.3 Clearing does not occur in regional ecosystem 5.7.13.</p>
<p>PR S.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS S.4 S.4.1 Clearing must not be undertaken in a manner that allows negative environmental effects from soil erosion to occur outside the permit area; AND S.4.2 Clearing does not occur on slopes greater than 5%; AND S.4.3 Clearing does not occur: a) on soils with a depth less than 45 centimetres; and b) where the soil A horizon is less than 30 centimetres on dispersible soils; AND S.4.4 Clearing does not occur in regional ecosystems: 5.5.4, 5.5.5, 5.5.6, 5.7.1, 5.7.2, 5.7.3, 5.7.4, 5.7.5 and 5.7.6.</p>
<p>PR S.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water are prevented.</p>	<p>AS S.5 Clearing does not: a) occur within 500 metres of a discharge area; and b) reduce the total extent of the remnant vegetation in the contributing catchments to less than 90% in the Thomson, Diamantina, Georgina, Bulloo, Hay and Lake Frome catchments and 30% in all other catchments, of the pre-clearing extent of remnant vegetation; and c) Clearing does not occur in areas subject to waterlogging or areas at risk of waterlogging</p>

Performance Requirement	Acceptable Solution
<p>PR S.6 To conserve remnant endangered regional ecosystems and remnant of concern regional ecosystems, the current extent of endangered and of concern regional ecosystems and category 1 and category 2 areas shown on a Property Map of Assessable Vegetation are maintained.</p>	<p>as a result of clearing.</p> <p>AS S.6 S.6.1 Clearing does not occur in endangered regional ecosystems or of concern regional ecosystems or in category 1 and category 2 areas shown on a Property Map of Assessable Vegetation;</p> <p>OR</p> <p>S.6.2 Where clearing occurs in areas listed in S.6.1, the clearing is offset by protecting another area of non-remnant vegetation⁴ (other than a category 1, category 2, category 3 or category 4 area on a PMAV) that achieves the following:</p> <ul style="list-style-type: none"> a) the regional ecosystem to be restored is the same regional ecosystem as the regional ecosystem to be cleared; and b) the area of the regional ecosystem to be restored is at least equal to the area to be cleared; and c) there is a demonstrated high probability that within 20 years the area being restored will be capable of being mapped as remnant vegetation.
<p>PR S.7 To prevent the loss of biodiversity, adequate representation of regional ecosystems is maintained across the bioregion.</p>	<p>AS 7 S.7.1 Clearing does not reduce the extent of any of the following regional ecosystems to less than 50% of the pre-clearing extent of that regional ecosystem on the property: 5.5.1, 5.5.3, 5.7.7;</p> <p>AND</p> <p>S.7.2 Clearing does not occur in regional ecosystems; 5.5.2, 5.6.2, 5.6.4, 5.7.12, 5.7.14, 5.9.1, 5.9.2;</p>

⁴ Other than vegetation that would be required to be retained under the conditions of a development approval.

Performance Requirement	Acceptable Solution
<p>PR S.8 Conserve remnant vegetation, prevent loss of biodiversity, maintain ecological processes, ensure clearing does not cause land degradation and to manage the environmental effects of clearing.</p>	<p>AS S.8 S.8.1 Clearing does not occur in an area of vegetation retained as a condition of a previous development permit on the property. S.7.2 Clearing is limited to the extent that is reasonably necessary for the construction and operation of the significant project.</p>

Part W: Requirements for Clearing Vegetation for Weed or Pest Management

Performance Requirement	Acceptable Solution
<p>PR W.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS W.1 W.1.1 Clearing does not occur in or within 200 metres of the static high water mark of, natural wetlands, lakes and springs.</p>
<p>PR W.2 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected:</p> <ul style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat. 	<p>AS W.2 Mechanical clearing does not occur in:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream of order 5 or greater; and b) 100 metres width from each bank of each stream of order 3 to 4; and c) 50 metres from each bank of each stream of order 1 to 2.
<p>PR W.3 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS W.3 Mechanical clearing does not occur:</p> <ul style="list-style-type: none"> a) on soils with dispersible soils in the B horizon, or with hardsetting characteristics and with an A horizon that extends to a depth of less than 20 centimetres; and b) on sodosols where the soil A horizon is less than 30 centimetres; and c) on soils with a depth less than 45 centimetres; and d) on slopes greater 5%.

Performance Requirement	Acceptable Solution
<p>PR W.4 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water are prevented.</p>	<p>AS W.4 Mechanical clearing or the aerial application of herbicide does not occur:</p> <ul style="list-style-type: none"> a) in existing or potential discharge areas; and b) within 150 metres of existing or potential discharge areas; and c) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
<p>PR W.5 To prevent the loss of biodiversity, the natural floristic composition and range of densities of the regional ecosystem at that locality are maintained.</p>	<p>AS W.5 Clearing in all remnant regional ecosystems:</p> <ul style="list-style-type: none"> a) is limited to the extent reasonably necessary for the removal of non-native plants or declared pests; and a) maintains viable populations of each native species present and listed in the regional ecosystem description.

Performance Requirement	Acceptable Solution
<p>PR W.6 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, the environmental effects of clearing for control of non-native plants and declared pests are minimised.</p>	<p>AS W.6</p> <p>W.6.1 Mechanical clearing only occurs where:</p> <ul style="list-style-type: none"> a) the infested area to be cleared is greater than 250m² and b) clearing is required to provide immediate access to the area of non-native plants or declared pests if no alternative route exists and c) greater than 60% of the total foliage cover (including shrub and canopy layers) is composed of a non-native plant or declared pest, or d) the area contains a rabbit warren complex and the clearing is limited to a perimeter of 3 metres around each hole. <p>AND</p> <p>W.6.2 Clearing using aerial application of herbicide only occurs where:</p> <ul style="list-style-type: none"> a) greater than 60% of the total foliage cover (including shrub and canopy layers) is composed of a non-native plant or declared pest, and b) the area to be cleared is greater than 1 hectare. <p>AND</p> <p>W.6.3 Clearing by other means is limited to:</p> <ul style="list-style-type: none"> a) the area infested by the pest plus a 1 metre buffer around the extent of the pest infestation; and b) the extent necessary to provide access to the area of non-native plants or declared pests, if no alternative route exists. <p>AND</p> <p>W.6.4 For a declared animal pest, clearing occurs only where there is no suitable alternative method of control.</p>

Part M: Requirements for Clearing for Management Activities⁵.

Performance Requirement	Acceptable Solution
<p>PR M.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS M.1 M.1.1 Clearing does not occur in or within 200 metres of the static high water mark of natural wetlands, lakes and springs. AND M.1.2 Clearing does not occur in land zone 3.</p>
<p>PR M.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.</p>	<p>AS M.2 M.2.1 Clearing does not: <ul style="list-style-type: none"> d) isolate endangered and of concern regional ecosystems and natural wetlands. These areas must be linked to clumps with corridors that are at least 200 metres wide; and e) result in a property having less than 50% of the pre-clearing extent of remnant vegetation consisting of: <ul style="list-style-type: none"> a) clumps with areas at least 50 hectares with a perimeter (meter) to area (hectare) ratio of no more than 200:1; and b) corridors at least 200 m wide between the clumps of remnant vegetation or between the clumps and retained vegetation on adjoining properties; and c) a minimum of 50% of the property retention area retained within clumps AND M.2.2 Clearing does not occur in an area which is identified on a map⁶ prepared by the chief executive of the agency which administers the <i>Nature Conservation Act 1992</i> and certified for use for the purposes of this code by the Chief Executive of the Department of Natural Resources, Mines & Energy, as an area of essential habitat for a species of wildlife listed as vulnerable, rare, near threatened or endangered under that Act.</p>

⁵ Management Activities include clearing that is:

- a) For establishing a necessary fence, firebreak, road or other built infrastructure, if there is no suitable alternative site for the fence, firebreak, road or infrastructure; or
- b) a natural and ordinary consequence of other assessable development for which a development approval as defined under the *Integrated Planning Act 1997* (IPA) was given, or a development application as defined under IPA was made, before 16 May 2003; or
- c) to ensure public safety.

⁶ The map is held in digital form by the Department of Natural Resources, Mines & Energy and may be reduced or enlarged to show the essential habitat for a particular area.

Performance Requirement	Acceptable Solution
<p>PR M.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected:</p> <ul style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat. 	<p>AS M.3 M.3.1 Clearing does not occur in or within:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or more; and b) 100 metres from each high bank of each stream order 3 or 4 ; and c) 50 metres from each high bank of each stream order 1 or 2. <p>AND</p> <p>M.3.2 Clearing does not occur in land zone 3;</p> <p>AND</p> <p>M3.3 Clearing does not occur in regional ecosystem 5.7.13.</p>
<p>PR M.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS M.4 M.4.1 Clearing does not occur on slopes in excess of 5%;</p> <p>AND</p> <p>M.4.2 Clearing does not occur:</p> <ul style="list-style-type: none"> a) on soils with a depth less than 45 centimetres; and b) where the soil A horizon is less than 30 centimetres on dispersible soils; <p>AND</p> <p>M.4.3 Clearing does not occur in regional ecosystems: 5.5.4, 5.5.5, 5.5.6, 5.7.1, 5.7.2, 5.7.3, 5.7.4, 5.7.5, 5.7.6.</p>

Performance Requirement	Acceptable Solution
<p>PR M.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water is prevented.</p>	<p>AS M.5 M.5.1 Clearing for built infrastructure where the clearing exceeds 2 hectares does not:</p> <ul style="list-style-type: none"> a) occur within 500 metres of an existing or potential discharge area; and b) reduce remnant extent to less than 90% of pre-clearing extent of remnant vegetation in the Thomson, Diamantina, Georgina, Bulloo, Hay and Lake Frome catchments; and c) reduce the extent of remnant vegetation to less than 30% of the pre-clearing extent of remnant vegetation in the contributing catchment; <p>AND M.5.2 Clearing does not occur in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.</p>
<p>PR M.6 To conserve remnant endangered regional ecosystems and remnant of concern regional ecosystems, the current extents of those regional ecosystems are maintained.</p>	<p>AS M.6 M.6.1 Clearing does not occur in remnant endangered regional ecosystems or remnant of concern regional ecosystems;</p> <p style="text-align: center;">OR</p> <p>M.6.2 Where clearing occurs that is for infrastructure, in areas listed in M.6.1 and the clearing exceeds 2 hectares, the clearing is offset by protecting another area of non-remnant vegetation that is of equal biodiversity value.</p>
<p>PR M.7 To prevent the loss of biodiversity, adequate representation of regional ecosystems is maintained across the bioregion.</p>	<p>AS M.7 M.7.1 Clearing in the following regional ecosystems does not reduce the regional ecosystem to less than 50% of the pre-clearing extent of the regional ecosystem on the property: 5.5.1, 5.5.3, 5.7.7;</p>
<p>PR M.8 Conserve remnant vegetation, prevent loss of biodiversity, maintain ecological processes, ensure clearing does not cause land degradation and manage the environmental effects of clearing.</p>	<p>AS M.8 M.8.1 Clearing does not occur in an area of vegetation retained as a condition of a previous development permit on the property.</p> <p>AND M.8.2 Clearing is limited to the extent that is reasonably necessary for the construction of the fence, road, firebreak or built infrastructure, or for public safety.</p>

Part F: Requirements for Fodder Harvesting⁷

Performance Requirement PR F.1
To ensure clearing does not cause land degradation, to maintain ecological processes and to prevent the loss of biodiversity, clearing for fodder harvesting does not occur unless the property or area in which the property is located is drought declared on or after 25 June 2004.

Performance Requirement	Acceptable Solution
<p>PR F.2 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS F.2 Clearing does not occur in or within 200 metres from the static high water mark of natural wetlands, lakes and springs;</p>
<p>PR F.3 To prevent the loss of biodiversity and to maintain ecological processes, viable wildlife habitat is maintained.</p>	<p>AS F.3 F.3.1 Clumps greater than 50 hectares, with a perimeter (metre) to area (hectare) ratio of no more than 100:1 are retained within fodder harvested areas; AND F.3.2 Clumps are linked by corridors greater than 200 metres wide with a length to width ratio of no more than 5:1; AND F.3.3 Corridors connect retained clumps and core habitat areas on the property.</p>
<p>PR F.4 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected to:</p> <ol style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat. 	<p>AS F.4 F.4.1 Clearing does not occur within at least;</p> <ol style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or greater; and b) 100 metres width from each high bank of each stream order 3 to 4; and c) 50 metres from each high bank of each stream order 1 to 2.

⁷ Fodder harvesting is the clearing of woody native plants suitable for browse fodder. Lopping for fodder harvesting does not require approval. Lopping means cutting or pruning branches, but not removing a trunk, or cutting or pruning so severely that the tree is likely to die.

Performance Requirement	Acceptable Solution
<p>PR F.5 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS F.5 F.5.1 Clearing does not occur on slope limits in excess of a 5% gradient; AND F.5.2 Fodder harvesting by chain pulling does not occur: a) on soils with a depth less than 45 centimetres and where the soil A horizon is less than 30 centimetres on sodic soils, fodder harvesting is limited to selective felling of individual trees, breaking tree canopies or by lopping; and b) on soils prone to wind erosion leading to scalding, fodder harvesting is limited to selective felling of individual trees or breaking tree canopies; AND F.5.3 Harvested trees remain where they have fallen.</p>
<p>PR F.6 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water are prevented.</p>	<p>AS F.6 Clearing does not: a) occur within 500 metres of salinity outbreak; and b) in existing or identified potential groundwater discharge areas; and c) within at least 100 metres of existing or identified potential discharge areas; and d) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.</p>
<p>PR F.7 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, the environmental effects of fodder harvesting are managed.</p>	<p>AS F.7 F.7.1 Fodder harvesting: a) occurs by selective felling, cutting or breaking⁸; and b) is limited to suitable fodder species only; and c) does not remove plants that are not suitable fodder species; and d) protects at least 50% of the total canopy existing before harvest or a minimum of 50 living mature fodder trees per hectare, (which ever is the greater) within the harvested area. OR</p>

⁸ Selective felling, cutting or breaking involves the harvesting of individual trees only.

Performance Requirement	Acceptable Solution
	<p>F.7.2 Fodder harvesting by chain pulling:</p> <ul style="list-style-type: none"> a) is limited to mulga (<i>Acacia aneura</i>) and only where- <ul style="list-style-type: none"> i. mulga represents at least 80% of the composition of canopy vegetation and ii. other non mulga canopy species are at least an average of 25 metres apart; and b) does not remove mature trees other than mulga; and c) is undertaken by pulling parallel to the contour; and d) does not reduce the extent of remnant vegetation (retained within areas with a minimum width of 200 metres) to less than 30% of the pre-clearing extent of remnant vegetation on the property; and e) does reduce the extent of each regional ecosystem to less than 30% of the pre-clearing extent of that regional ecosystem on the property; and f) is limited to chain pulling in strips of less than 300 metres wide and less than 2 kilometres long and separated from other cleared strips by uncleared continuous strips of remnant vegetation at least 100 metres wide on all sides; and g) is limited to 25% of the remnant vegetation remaining on the property.

Part T: Requirements for Thinning⁹

Performance Requirement	Acceptable Solution
<p>PR T.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS T.1 Clearing in or within 200 metres of the static high water mark of natural wetlands, lakes and springs:</p> <ul style="list-style-type: none"> a) does not cause mechanical disturbance of the soil surface; and b) does not clear any vegetation from the ground layer; and c) maintains viable populations of species present and listed in the regional ecosystem description¹⁰.
<p>PR T.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.</p>	<p>AS T.2 T.2.1 Clearing:</p> <ul style="list-style-type: none"> a) does not clear mature trees; and b) does not alter floristic composition or densities of the regional ecosystem typical of that locality; and c) does not occur in pre-existing thick patches of vegetation; and d) maintains viable populations of each species present and listed in the regional ecosystem description; <p>AND</p> <p>T.2.2 Clearing achieves a mosaic pattern that includes the protection of patches and strips of remnant vegetation representative of a range of densities of the regional ecosystem.</p>

⁹ Thinning is defined under the *Vegetation Management Act 1999* as the selective clearing of vegetation at a locality to restore a regional ecosystem to the floristic composition and range of densities typical of the regional ecosystem at that locality. The term does not include using a chain or cable linked between two tractors or bulldozers.

¹⁰ The Regional Ecosystem description is the full description of the regional ecosystem that appears in the Regional Ecosystem Description Database published by the Environmental Protection Agency.

Performance Requirement	Acceptable Solution
<p>PR T.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected:</p> <ul style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat. 	<p>AS T.3 T.3.1 Within the areas listed below:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or more; and b) 100 metres from each high bank of each stream order 3 or 4 ; and c) 50 metres from each high bank of each stream order 1 or 2; <p>clearing:</p> <ul style="list-style-type: none"> a) does not remove mature trees; or b) attains the floristic composition, size classes and densities of the regional ecosystem typical at that locality; or c) maintains viable populations of species present and listed in the regional ecosystem.
<p>PR T.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS T.4 T.4.1 Clearing does not occur on slopes in excess of 5%;</p> <p>AND</p> <p>T.4.2 Mechanical clearing does not occur;</p> <ul style="list-style-type: none"> a) on soils with a depth less than 45 centimetres; and b) where the soil A horizon is less than 30 centimetres on sodic soils.
<p>PR T.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water is prevented.</p>	<p>AS T.5 Clearing does not:</p> <ul style="list-style-type: none"> a) occur in or within 500 metres of an existing or potential discharge area; and b) occur in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
<p>PR T.6 To prevent the loss of biodiversity, thinning only occurs in areas where demonstrated thickening has occurred.</p>	<p>AS T.6 T.6.1 Clearing only occurs in areas where it is demonstrated that the density of the vegetation has thickened.</p> <p>AND</p> <p>T.6.2 Clearing only occurs in areas of thickening which is demonstrated by:</p> <ul style="list-style-type: none"> a) comparing the density of remnant vegetation in the earliest available aerial photography that includes the subject area with the most recent available aerial photography that shows the same area; and b) finding that there is an increase in the

Performance Requirement	Acceptable Solution
	<p>density or extent of vegetation that is inconsistent with of the range of densities of the regional ecosystem surrounding that locality or</p> <p>c) finding that the species is not listed in the description of the regional ecosystem¹¹.</p>
<p>PR T.7 To prevent the loss of biodiversity, the natural floristic composition and range of densities of the regional ecosystem at that locality are restored or maintained.</p>	<p>AS T.7 Clearing:</p> <ul style="list-style-type: none"> a) does not clear mature trees; and b) attains the floristic composition, size classes and densities of the regional ecosystem typical at that locality; and c) maintains viable populations of each species present and listed in the regional ecosystem description¹²; and d) does not remove naturally occurring thick patches of vegetation; and e) achieves a mosaic pattern of the range of densities of the regional ecosystem.

¹¹ The Regional Ecosystem description is the full description of the regional ecosystem that appears in the Regional Ecosystem Description Database published by the Environmental Protection Agency.

¹² The Regional Ecosystem description is the full description of the regional ecosystem that appears in the Regional Ecosystem Description Database published by the Environmental Protection Agency.

Part E: Requirements for Clearing Encroachment¹³

Performance Requirement	Acceptable Solution
<p>PR E.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS E.1 Mechanical clearing does not occur in, or within 200 metres of the static high water mark of, natural wetlands, lakes and springs</p>
<p>PR E.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.</p>	<p>AS E.2 Clearing: e) does not alter floristic composition or densities typical of the regional ecosystem; and f) maintains viable populations of each species present and listed in the regional ecosystem description.</p>
<p>PR E.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected to: a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat.</p>	<p>AS E.3 E.3.1 Mechanical clearing does not occur within: a) 200 metres from each high bank of each stream order 5 or greater; and b) 100 metres width from each bank of each stream order 3 to 4; and c) 50 metres from each bank of each stream order 1 to 2.</p>
<p>PR E.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS E.4 E.4.1 Clearing does not occur on slopes in excess of 5%; AND E.4.2 No mechanical clearing is to occur; a) on soils with a depth less than 45 centimetres; and b) where the soil A horizon is less than 30 centimetres on sodic soils.</p>

¹³ Encroachment means a woody species that has invaded an area of a grassland regional ecosystem to an extent the area is no longer consistent with the description of the regional ecosystem.

<p>PR E.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water are prevented.</p>	<p>AS E.5 Clearing does not occur:</p> <ul style="list-style-type: none"> a) within 500 metres of an existing or potential discharge area; b) in areas subject to increased waterlogging or areas at risk of waterlogging as a result of clearing.
<p>PR E.6 To prevent the loss of biodiversity, clearing for encroachment only occurs in areas where demonstrated encroachment has occurred.</p>	<p>AS E.6 E.6.1 Clearing for encroachment only occurs in a regional ecosystem for which an application for clearing of encroachment may be accepted under the <i>Vegetation Management Act 1999</i> section 22A(2);</p> <p>AND</p> <p>E.6.2 Clearing only occurs in areas of encroachment which is demonstrated by:</p> <ul style="list-style-type: none"> a) comparing the density of woody remnant vegetation in the earliest available aerial photography that includes the subject area with the most recent available aerial photography that shows the same area; and b) finding that there is an increase in the density or extent of woody vegetation that is inconsistent with the description of the regional ecosystem, or c) finding that the woody species is not listed in the description of the regional ecosystem.
<p>PR E.7 To prevent the loss of biodiversity, the natural floristic composition and range of densities of the regional ecosystem at that locality are restored or maintained.</p>	<p>AS E.7 Clearing:</p> <ul style="list-style-type: none"> a) attains the floristic composition, size classes and densities typical of the regional ecosystem surrounding that locality; and b) maintains viable populations of each species present and listed in the regional ecosystem description; and c) does not remove pre-existing thick patches of woody vegetation; and d) removes only the encroaching species.

Part X: Requirements for Clearing for an Extractive Industry¹⁴

An application that is for clearing for extractive industry and is also for the purpose of clearing for a significant project declared under the *State Development and Public Works Organisation Act 1971*, section 26 will be assessed under this part of the code, and not under Part S.

An application that is for clearing for extractive industry and is also for the purpose of clearing for establishing a necessary fence, firebreak, road or other built infrastructure, or for clearing that is a natural and ordinary consequence of other assessable development for which a development approval as defined under the *Integrated Planning Act 1997* was given, or a development application as defined under the *Integrated Planning Act 1997* was made, before 16 May 2003, will be assessed under this part of the code, and not under Part M.

Performance Requirements	Rule for creating the AS
<p>PR X.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS X.1 X.1.1 Clearing does not occur in or within 200 metres of the static high water mark of natural wetlands, lakes and springs.</p> <p>AND X.1.2 Clearing does not occur in land zone 3.</p>
<p>PR X.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained</p>	<p>AS X.2 X.2.1 Vegetation is retained in corridors with a 5:1 length to width ratio, which provide connectivity between:</p> <ol style="list-style-type: none"> a) clumps of retained vegetation on the property or on adjoining properties; and b) wetlands; and c) endangered or of concern regional ecosystems. <p>OR X.2.2 Viable networks of wildlife habitat are maintained by offsetting areas of vegetation immediately adjacent to the area of vegetation affected by the application, in a manner that meets the requirements of X.2.1.</p>

¹⁴ Extractive industry means one or more of the following:

- a) dredging material from the bed of any waters;
- b) extracting rock, sand, clay, gravel, loam or other material, from a pit or quarry;
- c) screening, washing, grinding, milling, sizing or separating material extracted from a pit or quarry.

Performance Requirements	Rule for creating the AS
<p>PR X.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected to:</p> <ul style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic ecosystems; and e) maintain wildlife habitat. 	<p>AS X.3 X.3.1 Clearing does not occur in or within:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or more; and b) 100 metres from each high bank of each stream order 3 or 4 ; and c) 50 metres from each high bank of each stream order 1 or 2. <p>AND X.3.2 Clearing does not occur in land zone 3;</p> <p>AND X.3.3 Clearing does not occur in regional ecosystem 5.7.13.</p>
<p>PR X.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effects on the environment from soil erosion is to occur.</p>	<p>AS X.4 X.4.1 Clearing must not be undertaken in a manner that allows adverse environmental effects from soil erosion resulting from the clearing to occur outside the operational area.</p> <p>AND X 4.2 Clearing is:</p> <ul style="list-style-type: none"> a) staged in line with operational needs to restrict clearing to the operational area; and b) limited to the area from which material will be extracted within the term of the permit.
<p>PR X.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water are prevented.</p>	<p>AS X.5 X.5.1 Clearing does not:</p> <ul style="list-style-type: none"> a) occur within 500 metres of an existing or potential discharge area; and b) reduce remnant extent to less than 90% of pre-clearing extent of remnant vegetation in the Thomson, Diamantina, Georgina, Bulloo, Hay and Lake Frome catchments; and c) reduce the extent of remnant vegetation to less than 30% of the pre-clearing extent of remnant vegetation in the contributing catchment;

Performance Requirements	Rule for creating the AS
	<p>AND</p> <p>X.5.2 Clearing does not occur in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.</p>
<p>PR X.6 To conserve remnant endangered regional ecosystems and remnant of concern regional ecosystems, the current extent of endangered and of concern regional ecosystems and category 1 and category 2 areas shown on a Property Map of Assessable Vegetation are maintained.</p>	<p>AS X.6 Clearing does not occur in an endangered or of concern regional ecosystem or an area shown as ‘category 1’ or ‘category 2’ on a Property Map of Assessable Vegetation, unless the clearing:</p> <p>a) is in a resource/processing area or transport route of a Key Resource Area identified in a State Planning Policy on Protection of Extractive Resources, or if no State Planning Policy is made, is in a resource/processing area or transport route for an area that in the opinion of the chief executive is an extractive resource of State significance;</p> <p>AND</p> <p>b) the clearing is offset by protecting an area of non-remnant (other than a category 1, category 2, category 3 or category 4 area on a PMAV), or remnant vegetation that may otherwise be approved to be cleared under this code that achieves the following:</p> <ol style="list-style-type: none"> i. the regional ecosystem to be restored is or will be the same regional ecosystem as the regional ecosystem to be cleared; and ii. the area of the regional ecosystem to be restored is at least equal to the area to be cleared; and iii. there is a demonstrated high probability that within 20 years the area being restored will be capable of being mapped as remnant vegetation.
<p>PR X.7 Conserve remnant vegetation, prevent loss of biodiversity, maintain ecological processes, ensure clearing does not cause land degradation and manage the environmental effects of clearing.</p>	<p>AS X.7 X.7.1 Clearing does not occur in an area of vegetation retained as a condition of a previous development permit for clearing on the property;</p> <p>AND</p> <p>X.7.2 Clearing for the construction of infrastructure associated with an extractive industry operation is limited to the extent that is reasonably necessary for the construction and operation of the infrastructure;</p>

Performance Requirements	Rule for creating the AS
	AND X.7.3 Clearing is: <ul style="list-style-type: none"><li data-bbox="799 309 1382 450">a) staged in line with operational needs to restrict clearing to the area required for active extractive activity at any one time; and<li data-bbox="799 456 1382 562">b) limited to the area from which material will be extracted within the term of the permit.

Part R: Requirements for Clearing Regrowth on Leasehold Land¹⁵

Where this part of the code refers to a regional ecosystem in the acceptable solutions, the pre-clearing extent map will be used to determine the location and extent of the regional ecosystem.

Performance Requirements	Acceptable Solution
<p>PR R.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.</p>	<p>AS R.1 Clearing of regrowth does not occur in or within 200 metres of the static high water mark of natural wetlands, lakes and springs.</p>
<p>PR R.2 To prevent the loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat, including corridors and core areas, are maintained.</p>	<p>AS R.2</p> <p>R.2.1 Clearing does not isolate endangered and of concern regional ecosystem or natural wetlands. These must be linked to clumps with corridors that are at least 200 metres wide.</p> <p>R.2.2 Vegetation is retained in clumps greater than 50 hectares with a perimeter (metres) to area (hectare) ratio of less than 200:1; and clumps are connected by corridors of vegetation at least 200 metres wide.</p> <p>R.2.3 A minimum of 50% of the property retention area is retained within clumps</p>
<p>PR R.3 To ensure clearing does not cause land degradation, to prevent the loss of biodiversity and to maintain ecological processes, watercourses and adjacent habitat are protected to:</p> <ul style="list-style-type: none"> a) maintain bank stability by protecting against erosion and slumping; and b) maintain water quality by filtering sediments, nutrients and other pollutants; and c) maintain aquatic habitat; and d) provide food for aquatic 	<p>AS R.3 Clearing does not occur in or within:</p> <ul style="list-style-type: none"> a) 200 metres from each high bank of each stream order 5 or more; and b) 100 metres from each high bank of each stream order 3 or 4; and c) 50 metres from each high bank of each stream order 1 or 2.

¹⁵ For the purposes of this code, regrowth is non-remnant vegetation that has emerged following clearing undertaken on or before 31 December 1989, and is on a lease issued under the *Land Act 1994* for agriculture or grazing purposes.

Performance Requirements	Acceptable Solution
ecosystems; and e) maintain wildlife habitat.	
<p>PR R.4 To ensure clearing does not cause land degradation and to maintain ecological processes, no adverse effect on the environment from soil erosion is to occur.</p>	<p>AS R.4 R.4.1 Clearing (mechanical or chemical methods) does not occur on slope limits in excess of a 5% gradient. R.4.2 Clearing does not occur a) on soils with a depth less than 45 centimetres; and b) where the soil A horizon is less than 30 centimetres on dispersible soils;</p>
<p>PR R.5 To ensure clearing does not cause land degradation and to maintain ecological processes, increased salinity and waterlogging and the salinisation of ground and surface water is prevented.</p>	<p>AS R.5 Clearing does not occur: a) in existing or potential discharge areas; and b) within 200 metres of existing or potential discharge areas; and c) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing; and d) in priority recharge areas.</p>

8. Dictionary

A horizon: soil horizons either consisting of one or more surface mineral horizons with some organic accumulation and usually darker in colour than the underlying horizons, or consisting of surface and subsurface horizons that are lighter in colour but have a lower content of silicate clay and/or sesquioxides than the underlying horizons.

Aerial Photography: Vertical aerial photographs, identified by film number, run number and frame number, captured as part of a coordinated aerial photography program or project on which the date of photography, flying height, lens focal length and project name are specified.

B horizon: Horizons consisting of one or more mineral soil layers characterised by one or more of the following: a concentration of silicate clay, iron, aluminum, organic material or several of these; a structure and/or consistence unlike that of the A horizons above or of any horizons immediately below; stronger colours, usually expressed as higher chroma and /or redder hue, than those of the A horizons above or those of the horizons below.

Chemical clearing: means the use of herbicides to clear vegetation.

Contributing Catchment means, for:

- a) a local ground water flow system, the area of the surface catchment measured above a point 5 kilometres downstream from an existing or potential discharge area;
- b) an intermediate groundwater flow system, the area encompassed by a 15 kilometre radius from an existing or potential discharge area;
- c) a regional groundwater flow system, the area within the relevant drainage basin sub area at a higher elevation than an existing or potential discharge area.

Corridors: are continuous strips of vegetation; that link clumps of remnant vegetation; that are used or capable of being used by wildlife for movement; and are capable of being habitat in their own right.

Demonstrated encroachment: means the increase in density of woody vegetation in grassland regional ecosystems listed in the *Vegetation Management Regulation 2000* which can be proven by reference to the earliest available aerial photography that includes the subject area when compared with the most recent available aerial photography that shows the same area.

Demonstrated, for a proposed offset, includes demonstrated by reference to published literature, the written opinion of a recognised expert in the field of revegetation; or by comparison to revegetation projects in similar regional ecosystems and similar conditions.

Demonstrated thickening: means the increase in the density of woody vegetation which can be proven by reference to the earliest available aerial photograph that includes

the subject property when compared with the most recent available aerial photograph that includes the subject property.

Discharge area is –

- a) that part of the land surface where groundwater discharge produces a net movement of water out of the groundwater; and
- b) identified by an assessment process that is consistent with the document: *Salinity Management Handbook*, Queensland Department of Natural Resources, 1997; or
- c) identified by an approved salinity hazard map.

Dispersible soils: are soils in which clay material disintegrates into particles less than 2 microns when submerged in distilled water for 12 hours

Drainage Basin Sub Area: is identified on an electronic map layer held by the Department of Natural Resources, Mines & Energy.

Encroachment: means a woody species that has invaded an area of a grassland regional ecosystem to an extent the area is no longer consistent with the description of the regional ecosystem.

Floristic composition: is determined by the full description of the regional ecosystem provided by the Queensland Herbarium.

Fodder harvesting: is the clearing of fodder species for the purposes of being eaten by stock

Fodder species: are listed in the table below; or are species where the proponent can establish with published literature, to the satisfaction of the Chief Executive, that:

- a) in the local conditions, the species is suitable for browse fodder (that it is palatable, non-toxic and contributes to stock nutrition); and
- b) the species will regenerate successfully after harvesting.

Such information may be located in current scientific literature, such as Everist, SL (1985) *Use of Fodder Trees and Shrubs*, Qld Department of Primary Industries Information Series QI85015

Fodder species do NOT include Brigalow (*Acacia harpophylla*), Gidgee (*Acacia cambagei*) and all species of the genera Eucalyptus and Corymbia.

Species for fodder harvesting	
Common name	Scientific name
mulga	<i>Acacia aneura</i>
ironwood	<i>Acacia excelsa</i>
myall	<i>Acacia pendula</i>
wilga, tree wilga	<i>Geijera parviflora</i>

Foliage cover: is the percentage of the sample site occupied by the vertical projection of the foliage and woody branches.

Grassland regional ecosystem: means a grassland regional ecosystem prescribed under a regulation as a grassland regional ecosystem.

Groundwater flow system: is a zone with hydrogeological characteristics that influence the occurrence of dryland salinity. The hydrogeological characteristics relate to the movement of groundwater from a recharge area, through a transmission zone, to a discharge area or a potential discharge area

High bank: is the terrace or bank or, if no bank is present, the point on the active floodplain which confines the normal flow, and which is either permanent or intermittent.

Intermediate groundwater flow system: is a ground water flow system where the distance between a discharge area and the closest recharge area is between 5 kilometres and 15 kilometres.

Key resource area: is an area identified in a State Planning Policy for Extractive Industries as a Key Resource Area.

Lake: a lagoon, billabong or other natural or purpose built area of open water, whether permanent or intermittent.

Local ground water flow system: is a ground water flow system where the distance between a discharge area and the closest recharge area is less than 5km

Mature trees: are trees that:

- a) are present in the predominant canopy as dominants or co-dominants; and
- b) have a trunk diameter, measured 1.3 metres above the ground, more than half of that of the largest trees of the same species in the regional ecosystem typical at that locality, **or**
- c) have more than one hollow more than 10 centimetres in diameter and more than 2 metres above the ground.

Mechanical clearing: means to destroy vegetation using bulldozers, tractors or other traction engines, including the use of chains or cables between the machinery.

Operational area: means the area actively being used for extractive industry at any one time.

Pre-clearing extent: for a regional ecosystem, means the extent of the regional ecosystem before it was cleared, which is shown on the most recently released version of a digital map of the pre-clearing extent of regional ecosystems prepared by the Queensland Herbarium.

Priority recharge areas are areas

- a) identified as moderate-high or high on the recharge layer of an approved Salinity Hazard Map of the Department of Natural Resources, Mines and Energy; or
- b) identified using an assessment process that is consistent with the document: *Salinity Management Handbook, Queensland* Department of Natural Resources, 1997.

Property: is a lease, a license or permit under the *Land Act 1994*; a single freehold lot or an aggregation of freehold lots that are geographically contiguous and are managed as a single unit.

Protecting: when offsetting means the area is either: declared as high nature conservation value or vulnerable to land degradation under the *Vegetation Management Act 1999*; shown as a category 1, 2 or 3 area on a voluntary Property Map Assessable Vegetation under the *Vegetation Management Act 1999*, listed as a nature refuge under the *Nature Conservation Act 1992*

Rabbit warren complex: is an underground place with 2 or more entry points where rabbits breed.

Recharge areas: are identified by either-

- a) an assessment process that is consistent with the document: *Salinity Management Handbook, Queensland* Department of Natural Resources, 1997; or
- b) an approved salinity hazard map.

Regional groundwater flow system: is a ground water flow system where the distance between a discharge and the closest recharge area is greater than 15km.

Resource/processing area: means the area of an extractive resource and the operational areas associated with extraction and processing of extractive materials. For a Key Resource Area identified by a State Planning Policy on Protection of Extractive Resources, the terms means the resource/processing area defined for that Key Resource Area in that State Planning Policy

Retained vegetation: is

- an area shown as a Category 1 area, Category 2 area, Category 3 area or Category 4 area on a property map of assessable vegetation; or
- where there is no property map of assessable vegetation, is an area of remnant vegetation shown on a certified regional ecosystem map or remnant map; or
- vegetation that is not remnant vegetation on land subject to a lease issued under the *Land Act 1994* for agricultural or grazing purposes, in an area that was cleared prior to 31 December 1989.

Scalds: an area where erosion of surface soil has exposed subsoils that remain bare of vegetation. Scalds can be saline or non-saline, sodic or non-sodic.

Sodosols: are soils with strong texture contrast between the A horizons and B horizons which are strongly acid but are sodic in the upper 0.2m.

Soil erosion: includes landslip, gully erosion, rill erosion, sheet erosion, stream bank erosion, wind erosion or scalding; and associated loss of chemical, physical or biological fertility (such as water holding capacity, soil structure, organic matter, soil biology and nutrients).

Springs: are –

- a) where water naturally rises to and flows over the surface of land; and
- b) those areas listed in: Fensham and Fairfax (2002) ‘Queensland springs distribution-assessment’.

Static high water mark: is the settled ordinary water level that occurs under average meteorological conditions. It is less than extreme levels that can be caused by storm surges.

Stream order: is a numerical ordering classification of each watercourse segment according to its position within a catchment. When two streams of the same order join, the resulting watercourse becomes one stream order larger. If two streams of different order join, the resultant stream order is that of the larger stream, as shown in Figure 2.

Thinning: means the selective clearing of vegetation at a locality to restore a regional ecosystem to the floristic composition and range of densities typical of the regional ecosystem surrounding that locality. The term does not include clearing using a chain or cable linked between 2 tractors, bulldozers or other traction vehicles.

Transport Route: means the route used to transport¹⁶ extractive materials to markets. For a Key Resource Area identified by a State Planning Policy on Protection of Extractive Resources, the term means the transport route defined for that Key Resource Area in that State Planning Policy

Viable network: areas of vegetation that exhibit high levels of connectivity, are representative of all regional ecosystems on the property, are large enough to allow ecosystem functioning, are self generating and able to remain in the landscape.

Viable populations: means maintaining a range of size classes of the species at sufficient populations to ensure its ongoing presence at that site.

Waterlogging: is the saturation of soil by soil water.

¹⁶Generally road haulage is used to transport extractive materials, but in some circumstances could be:

- Rail transport, for example for transporting rail ballast where the extractive resource deposit is adjacent to rail (some rail ballast is trucked to a distribution centre at a rail siding); or
- Conveyor transport comprising a loading point, conveyor, and a distribution centre where there are significant rates of extraction.

Wetlands: are –

- a) lands that are transitional between terrestrial and aquatic systems, where the watertable is usually at or near the surface of the land, or the land is periodically covered by shallow water. This includes deepwater habitats within the terrestrial environment, and areas up to 6 metres depth at the marine interface. To be a wetland the area must have one or more of the following attributes:
 - i. at least periodically the land supports plants and animals that are adapted to and dependent on living in wet conditions for at least part of their life cycle.
 - ii. the substratum is predominantly undrained soils that are saturated, flooded or ponded long enough to develop anaerobic conditions.
 - iii. the substratum is non-soil and is saturated with water, or covered by shallow water at some time during the growing season each year; and
- b) those areas shown as a swamp, lake, marsh, waterhole, wetland, billabong, pool or spring on the latest Sunmap 1:100,000 or 1:250,000 topographic map; and
- c) Environment Australia (2001). *A Directory of Important Wetlands in Australia*. Third Edition. Environment Australia, Canberra.

Wildlife habitat: the combination of factors both biotic and abiotic that meet the requirements of a particular species of native plant or animal.

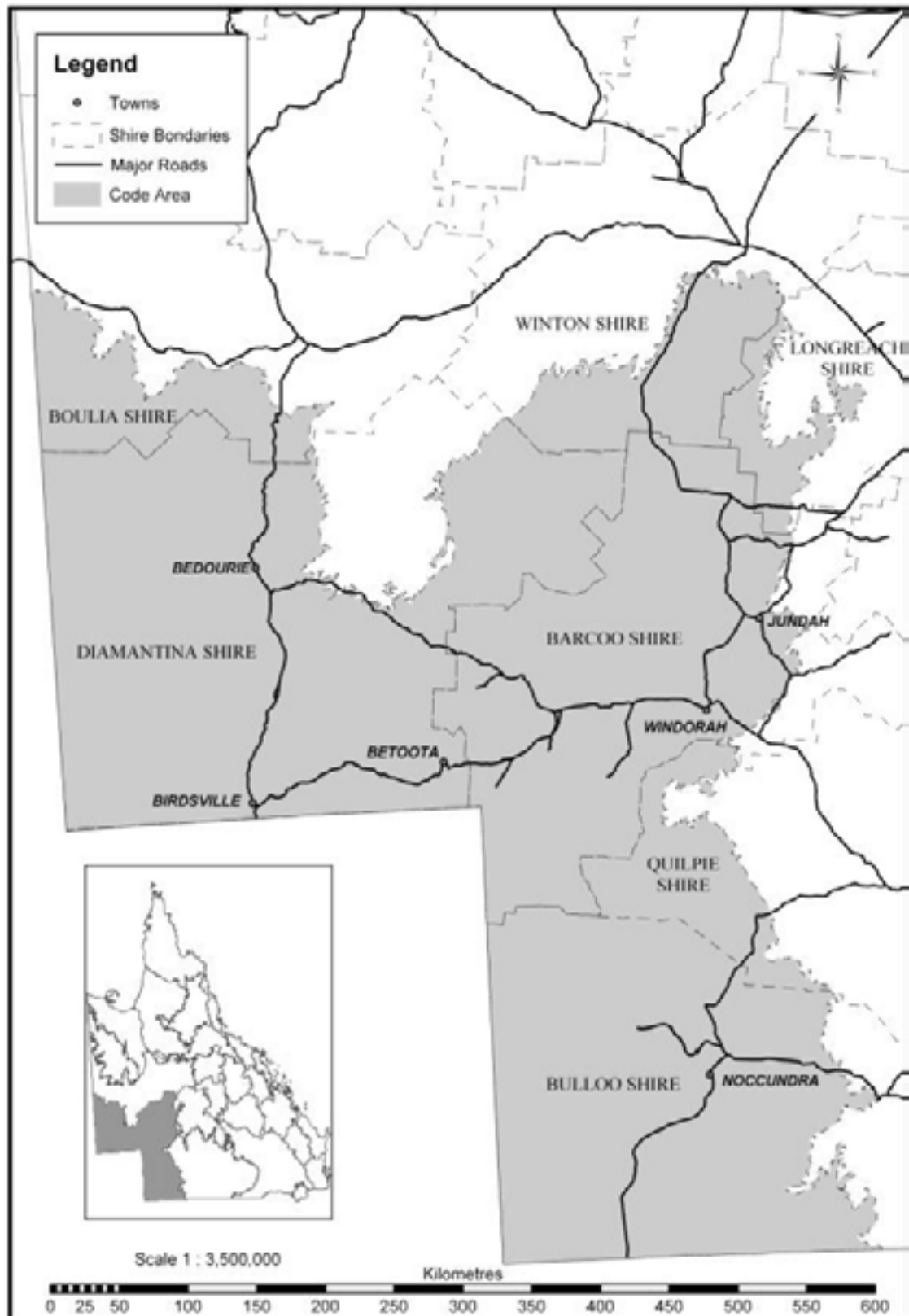


Figure 1: Location of Channel Country Bioregion



Figure 2: Diagrammatic view of stream ordering