Regional

Vegetation Management Code

for

Ongoing Clearing Purposes

Central Queensland Coast Bioregion

25 June 2004

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1. Description of Region

This regional vegetation management code applies to the Central Queensland Coast (CQC) Bioregion. The boundary of the Central Queensland Coast Bioregion is defined in digital form held by the Department of Natural Resources, Mines and Energy, and is illustrated in Figure 1

The CQC Bioregion has an area of approximately 1.4 million hectares and is centred on the high-rainfall coastal lowlands, hills, and ranges around Byfield in the south and Carmila to Proserpine in the North. The Brigalow Belt Bioregion surrounds the CQC Bioregion, reaching the coast in the dry corridors of Gladstone to Yeppoon, Shoalwater Bay to Carmila, and Proserpine to Bluewater River. The CQC Bioregion includes the localities of Airlie Beach, Clairview, Proserpine, Mackay, Sarina, Eungella, Carmila West, Yeppoon, and Byfield. Amongst others, the Whitsunday, Lindeman, and Cumberland Island groups are also included within the bioregion's boundaries.

The Bioregion has a highly seasonal average annual rainfall of 1300 – 2000mm, with 50% - 60% falling between January and March. Savanna woodlands and semi-deciduous forests characterise lower altitude parts of the bioregion, while at higher altitudes, the predominant remnant regional ecosystems are broad-leaved evergreen rainforest and tall eucalypt forest. Coastal parts of the bioregion and more exposed inland areas are subject to occasional severe cyclones.

The most significant drainage systems of the region are the O'Connell and Pioneer Rivers. The O'Connell River flows into the ocean southeast of Proserpine, while the Pioneer River flows into the ocean near Mackay. A small portion of the Fitzroy River also drains out of the CQC Bioregion into the Brigalow Belt Bioregion just east of Pine Mountain. A number of watercourses (Bogie and Broken Rivers) drain the western slopes of the region and flow northwards into the Burdekin River and Funnel Creek. The Don River drains directly northward to the coast, while the Proserpine River drains directly east to the coast. The eastward draining streams are predominantly short with steep gradients.

The land uses and industries of the region include predominantly sugar cane, cattle grazing, and tourism, with a lesser degree of dairying, fruit growing (for example mangoes and bananas), and aquaculture as well. Sugar cane has been gradually expanding into more marginal country, while tourism has sustained high levels of growth in the Whitsunday area. Native hardwood timber harvesting is also undertaken throughout the area, particularly in the range country, usually in conjunction with rangeland grazing.

Approximately 51% of land in the RVMP area is held under freehold tenures, while 18% is held under leasehold tenure. 11% are reserved as State Forests and 10% as National Parks. Around 10% is held in other reserves such as water, road, and rail.

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* (IPA). 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
- (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 amendment that can be made to this code under Section 15 (b) of the VMA is:

- Protection of 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 *State Development and Public Works Organisation Act 1971*, 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 *Integrated Planning Act 1997* was given, or a development application as defined under the *Integrated Planning Act 1997* 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 *Land Act 1994* 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
PR A.1 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: • 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; 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 Central Queensland Coast Bioregion to less than 30% of the pre-clearing extent of the remnant vegetation of the bioregion 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 map[1] 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 Projects[2]

Performance Requirement	Acceptable Solution
PR S.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS S.1** Clearing does not occur: a) in natural wetlands, lakes, and springs; or, b) in regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7 8.2.11, 8.3.4, 8.3.11, and 8.3.13; or c) within: i) 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes, and springs. ii) 100 metres from the static high water mark of natural regionally significant wetlands, lakes, and springs. iii) 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR S.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.	**AS S.2** S.2.1 Clearing does not isolate endangered and of concern regional ecosystems, or natural wetlands; s.2.2 Clearing does not reduce the extent of remnant vegetation on the property to less than 30% of the pre-clearing extent of remnant vegetation on the property. The retained vegetation must consist of: a) Clumps with a perimeter (metre) to area (hectare) ratio of less than 200:1 that are: i) 10 hectares for sub-regions one, two and six; and, ii) 50 hectares for all other sub-regions. b) Corridors between clumps with widths of: i) 50 metres for sub-regions one, two, & six; and, ii) 200 metres for all other sub-regions. AND S2.3 At least 50% of the retained vegetation is to be contained within 1 or 2 clumps. AND

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

Performance Requirement	Acceptable Solution
	S.2.4 Clearing does not occur in an area which is identified on a map[3] 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 NRM&E, as an area of essential habitat for a species of wildlife listed as vulnerable, rare, near threatened or endangered under that Act.
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: 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.	**AS S.3** Clearing does not occur within: a) Sub-region 2 & 6: i) 25 metres from the high bank of each stream order 1, 2, 3 & 4 watercourse. ii) 50 metres from the high bank for all other stream order watercourses. b) all other subregions: i) 50 metres from the high bank of each stream order 1, 2, 3 & 4 watercourses; ii) 100 metres from the high bank for all other stream order watercourses. c) regional ecosystem: 8.3.3.
PR S.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.	**AS S.4** S.4.1 Clearing must not be undertaken in a manner that allows adverse environmental effects from soil erosion to occur outside the permit area; S.4.2 Clearing does not occur on slopes greater than 5%, except for the regional ecosystems with associated slope limits specified below: a) 8% for mechanical clearing and 16% for chemical clearing in regional ecosystems: 8.12.2 b) 10% for mechanical clearing and 20% for chemical clearing in regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, 8.12.20; and, c) 20% for mechanical clearing and 20% for chemical clearing in regional ecosystem: 8.12.3

[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
	AND S.4.3 Clearing does not occur: a) On soils with a depth less than 45cm; and b) On dispersible soils where the soil A horizon is less than 30cm.
PR S.5 To ensure clearing does not cause land degradation and to maintain ecological processes and to manage environmental effects of clearing, the landscape is protected against increased salinity and waterlogging and the salinisation of ground and surface water is prevented.	**AS S.5** S.5.1 Clearing does not occur: a) where all or part of regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20, are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a 1:100 000 Geological map; b) in existing or identified potential recharge areas; c) within 200 metres of an existing or potential discharge area where basal area is greater than 4 metres^2 per hectare; and d) within 500 metres of an existing or potential discharge area where basal area is less than 4 metres^2 per hectare; and e) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing; and AND S.5.2 Clearing does not reduce the extent of remnant vegetation to less than 30% of the pre-clearing extent of remnant vegetation in a contributing catchment.
PR S.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils (ASS) is prevented.	**AS S.6** S.6.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.

Performance Requirement	Acceptable Solution
	AND S 6.2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.
PR S.7 To conserve remnant regional ecosystems, the current extent of those regional ecosystems is maintained and category 1, category 2 and category 3 areas shown on a Property Map of Assessable Vegetation are maintained.	**AS S.7** S.7.1 Clearing does not occur in regional ecosystems or in category 1, category 2, or category 3 areas shown on a Property Map of Assessable Vegetation. OR S.7.2 Where clearing occurs in areas listed in S.7.1, the clearing is offset by protecting another area of non-remnant vegetation[4] (other than a category 1, category 2, category 3 or category 4 area on a PMAV) that achieves the following: 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.
PR S.8 To prevent the loss of biodiversity, adequate representation of regional ecosystems is maintained across the bioregion.	**AS S.8** S.8.1 Clearing does not occur in regional ecosystems: 8.2.8, 8.3.3, 8.12.1, 8.12.5, 8.12.14, 8.12.15, 8.12.18, and 8.12.22. S.8.2 Clearing does not reduce the extent of regional ecosystems 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20 on a property to less than 30% of the pre-clearing extent of the regional ecosystem on that property. OR S.8.3 Where clearing occurs in areas listed in S.8.1 or S.8.2, the clearing is offset by protecting another area of non-remnant vegetation[5] (other than a

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

Performance Requirement	Acceptable Solution
	category 1, category 2, category 3 or category 4 area on a PMAV) that achieves the following: 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.
PR S.9 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.	**AS S.9** S.9.1 Clearing does not occur in an area of vegetation retained as a condition of a previous development permit on the property. S.9.2 Clearing is limited to the extent that is reasonably necessary for the construction and operation of the significant project.

Part W: Requirements for Clearing Vegetation for Weed or Pest Management[6]

Performance Requirement	Acceptable Solution
PR W.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS W.1** Mechanical clearing does not occur: a) in natural wetlands, lakes, and springs; and, b) in the following regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7, 8.2.11, 8.3.4, 8.3.11, and 8.3.13; and c) within: i) 200 metres from the static high water mark of bioregionally significant wetlands, lakes, and springs; and ii) 100 metres from the static high water mark of regionally significant wetlands, lakes, and springs; and iii) 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
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: 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.	**AS W.2** W.2.1 In Subregion two and six, mechanical clearing does not occur in or within: a) 25 metres from the high bank of each stream order 1, 2, 3 & 4; and b) 50 metres from the high bank for all other stream orders. W.2.2 In all other Subregions, mechanical clearing does not occur in or within: a) 50 meters from the high bank of each stream order 1, 2, 3 & 4; and b) 100 meters from the high bank for all other stream orders; and c) Regional ecosystem 8.3.3.

[6] Weed or pest management means clearing to control non-native plants or pests declared under the *Land Protection (Pest and Stock Route Management) Act 2002*

Performance Requirement	Acceptable Solution
PR W.3 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.	**AS W.3** W.3.1 Mechanical clearing does not occur on slopes greater 5%, except for the limitations specified for the regional ecosystems below: a) 8% for regional ecosystem 8.12.2; and b) 10% for regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, 8.12.20; and c) 20% for Regional Ecosystem: 8.12.3. AND W.3.2 Mechanical clearing does not occur: a) On soils with a depth less than 45cm; and b) On dispersible soils where the soil A horizon is less than 30cm.
PR W.4 To ensure clearing does not cause land degradation and to maintain ecological processes and to manage environmental effects of clearing, the landscape is protected against increased salinity and waterlogging and the salinisation of ground and surface water is prevented.	**AS W.4** Mechanical clearing or the aerial application of herbicide does not occur: a) in existing or potential discharge areas; or b) within 200 metres of existing or potential discharge areas where basal area density is greater than 4 metres^2 per hectare; and c) within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare; and d) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
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.	**AS W.5** Clearing in all remnant regional ecosystems: a) is limited to the extent reasonably necessary for the removal of non-native plants or declared pests; and b) maintains viable populations of each native species present and listed in the regional ecosystem description[7].
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	**AS W.6** W.6.1 Mechanical clearing only occurs where: a) the infested area to be cleared is greater than 250m^2 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

[7] 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
non-native plants and declared pests are minimised.	c) greater than 60% of the total projective 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. AND W.6.2 Clearing using aerial application of herbicide only occurs where: a) greater than 60% of the total projective 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. AND W.6.3 Clearing by other means is limited to: a) the area infested by the pest plus a 1 meter 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. AND W.6.4 For a declared animal pest, clearing occurs only where there is no suitable alternative method of control.
PR W.7 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils (ASS) is prevented.	**AS W.7** W.7.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline. AND W.7.2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.

Part M: Requirements for Clearing for Management Activities[8]

Performance Requirement	Acceptable Solution
PR M.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS M.1** Clearing does not occur: a) in natural wetlands, lakes, and springs; or, b) in regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7 8.2.11, 8.3.4, 8.3.11, and 8.3.13; or c) within: i) 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes, and springs. ii) 100 metres from the static high water mark of natural regionally significant wetlands, lakes, and springs. iii) 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR M.2 To prevent the loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.	**AS M.2** M.2.1 Clearing does not isolate endangered or of concern regional ecosystems, or natural wetlands. These areas must be linked to core areas with wildlife corridors that are at least 200 metres wide. AND M.2.2 Clearing does not reduce the extent of remnant vegetation on the property to less than 30% of the pre-clearing extent of remnant vegetation on the property. The retained vegetation must consist of: a) Clumps with a perimeter (metre) to area (hectare) ratio of less than 200:1 that are: i 10 hectares for sub-regions one, two and six; and, ii 50 hectares for all other sub-regions. b) Corridors between clumps with widths of: i 50 metres for sub-regions one, two, & six;

[8] 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.

Performance Requirement	Acceptable Solution
	and, ii 200 metres for all other sub-regions. AND M.2.3 At least 50% of the retained vegetation is to be contained within 1 or 2 clumps. AND M2.3 Clearing does not occur in an area which is identified on a map[9] 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 NRM&E, as an area of essential habitat for a species of wildlife listed as vulnerable, rare, near threatened or endangered under that Act.
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: 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.	**AS M.3** Clearing does not occur in or within: a) Sub-region 2 and 6: i). 25 metres from each high bank of each stream order 1, 2, 3 & 4 watercourse; and ii). 50 metres from each high bank for all other stream orders; b) all other subregions: i) 50 metres from each high bank of each stream order 1, 2, 3 & 4 watercourse; and ii) 100 metres from each high bank for all other stream orders. c) the following regional ecosystems: 8.3.1 and 8.3.3.
PR M.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.	**AS M.4** M.4.1 Clearing does not occur in the following regional ecosystems: 8.2.8, 8.3.3, 8.12.1, 8.12.5, 8.12.14, 8.12.15, 8.12.18, and 8.12.22. AND M.4.2 Clearing does not occur on slopes greater than 5%, except for the regional ecosystems with associated

[9] 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
	slope limits specified below: d) 8% for mechanical clearing and 16% for chemical clearing in Regional Ecosystem 8.12.2; and e) 10% for mechanical clearing and 20% for chemical clearing in Regional Ecosystems: 8.12.3, 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20. AND M.4.3 Clearing does not occur: a) On soils with a depth less than 45 centimetres; and b) On dispersible soils where the soil A horizon is less than 30 centimetres. AND M.4.4 Clearing must not be undertaken in a manner that allows negative environmental effects from soil erosion outside the permit area.
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 are prevented.	**AS M.5** M.5.1 Clearing for built infrastructure where the clearing exceeds 2 hectares does not occur: a) In Drainage Basin Sub Areas that have less than 30% remnant vegetation coverage; and b) where regional ecosystems 8.12.9, 8.12.12 and 8.12.20 are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a geological map; and c) in existing or potential recharge areas; and, d) within 200 metres of discharge areas where basal area density is greater than 4 metres^2 per hectare; and e) within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare. M.5.2 Clearing does not occur in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.

Performance Requirement	Acceptable Solution
PR M.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils (ASS) is avoided.	**AS M.6** M.6.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline. AND M.6..2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.
PR M.7 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.	**AS M.7** Clearing does not occur in remnant endangered regional ecosystems or remnant of concern regional ecosystems or areas shown as ‘category 1’ or ‘category 2’ areas on a Property Map of Assessable Vegetation.
PR M.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.	**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. 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.

Part F: Requirements for Fodder Harvesting[10]

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
PR F.2 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS F.2** Clearing does not occur: a) in natural wetlands, lakes, and springs; or, b) in regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7 8.2.11, 8.3.4, 8.3.11, and 8.3.13; or c) within: i) 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes, and springs. ii) 100 metres from the static high water mark of natural regionally significant wetlands, lakes, and springs. iii) 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR F.3 To prevent the loss of biodiversity and to maintain ecological processes, viable wildlife habitat is maintained.	**AS F.3** F.3.1 Clearing does not does not remove mature trees that contain holes or habitat features. F.3.2 Clearing does not isolate endangered and of concern regional ecosystems, or natural wetlands; F.3.3 Clearing does not occur in regional ecosystems: 8.2.8, 8.3.3, 8.12.1, 8.12.5, 8.12.14, 8.12.15, 8.12.18, and 8.12.22; F.3.4 Clearing does not occur in more than 70% of the pre-clearing extent of the property in regional ecosystems: 8.12.2 and 8.12.3. F.3.5 Clearing does not exceed a maximum of 70% of the pre-clearing extent of the property in regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20.

[10] 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
	F.3.6 Clearing does not does not result in a property having less than 30% remnant vegetation consisting of: a) Clumps that are: i) 10 hectares for sub-regions one, two, and six; and, ii) 50 hectares for all other sub-regions. b) Corridors between core areas and linking vegetation with widths of: i) 50 metres for sub-regions one, two, and six; and, ii) 200 metres for all other sub-regions. F.3.7 At least 50% of the retained vegetation is to be contained within 1 or 2 clumps.
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: 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.	**AS F.4** Clearing does not occur in: a) Sub-region 2 & 6: i) Within 25 metres from the high bank of each stream order 1, 2, 3 & 4 watercourse. ii) Within 50 metres from the high bank for all other stream order watercourses. b) all other subregions: i) within 50 metres from the high bank of each stream order 1, 2, 3 & 4 watercourses ii) within 100 metres from the high bank for all other stream order watercourses. c) the following regional ecosystem: 8.3.3.
PR F.5 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.	**AS F.5** F.5.1 Clearing does not occur in regional ecosystems: 8.2.8, 8.3.3, 8.12.1, 8.12.5, 8.12.14, 8.12.15, 8.12.18, and 8.12.22; F.5.2 Clearing does not exceed a maximum of 70% of the pre-clearing extent of the property in regional ecosystems: 8.12.2, 8.12.3, 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20; F.5.3 Clearing does not occur on slope limits in excess of those specified for the regional ecosystems listed below: a) 8% for clearing in regional ecosystem: 8.12.2; b) 10% clearing in regional ecosystems: 8.12.6,

Performance Requirement	Acceptable Solution
	8.12.7, 8.12.9, 8.12.12, 8.12.20; and, c) 20% for clearing in regional ecosystem: 8.12.3 AND F.5.4 Clearing does not occur: a) On soils with a depth less than 45cm; and b) On dispersible soils where the soil A horizon is less than 30cm.
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.	**AS F.6** Clearing does not occur: a) where all or part of regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20, are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a 1:100 000 Geological map b) in existing or identified potential recharge areas; and, c) within 200 metres of discharge areas where basal area density is greater than 4 metres^2 per hectare; and d) within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare; and e) in at least 30% of the pre-clearing extent of remnant vegetation in a Drainage Basin Sub Area; and f) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
PR F.7 To conserve remnant not of concern regional ecosystems and to prevent the loss of biodiversity, the natural floristic composition and the structural integrity of the regional ecosystem are maintained.	**AS F.7** Clearing: a) maintains the floristic composition, size classes and structural integrity of the regional ecosystem typical at that locality; and b) maintains viable populations of each species listed in the regional ecosystem description. c) does not does not remove mature trees that contain holes or habitat features
PR F.8 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.	**AS F.8** Clearing: a) occurs by selective felling, cutting or breaking[11]; and b) is limited to suitable fodder species; and c) does not remove plants that are not suitable fodder species.

[11] Selective felling, cutting or breaking involves the harvesting of individual trees only.

Part T: Requirements for Thinning[12]

Performance Requirement	Acceptable Solution
PR T.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS T.1** Mechanical clearing does not occur: a) in natural wetlands, lakes, and springs; and, b) in the following regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7, 8.2.11, 8.3.4, 8.3.11, and 8.3.13; and c) within 200 metres from the static high water mark of bioregionally significant wetlands, lakes, and springs; and d) within 100 metres from the static high water mark of regionally significant wetlands, lakes, and springs; and e) within 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR T.2 To prevent the loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat is maintained.	**AS T.2** Clearing: a) does not clear mature trees; and b) does not remove pre-existing thick patches of vegetation; and c) does not alter species composition or densities typical of the regional ecosystem surrounding that locality; and d) maintains viable populations of each species present and listed in the regional ecosystem description[13]; and e) 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.

[12] 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 using a chain or cable linked between 2 tractors, bulldozers or other traction engines.

[13] 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
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: 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.	**AS T.3** Mechanical clearing does not occur in or within the areas listed below: a) In Sub-regions 2 & 6: i) 25 metres from the high bank of each stream order 1, 2, 3 & 4 watercourse. ii) 50 metres from the high bank for stream order 5 and above watercourses. b) all other subregions: i) 50 metres from the high bank of each stream order 1, 2, 3 & 4 watercourses ii) 100 metres from the high bank for stream order 5 and above watercourses.
PR T.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.	**AS T.4** T.4.1 Clearing does not occur in the following regional ecosystems: 8.2.8, 8.3.3, 8.12.1, 8.12.5, 8.12.14, 8.12.15, 8.12.18, and 8.12.22. T.4.2 Clearing does not occur on slopes greater than 5%, except for the regional ecosystems with associated slope limits specified below: a) 8% for mechanical clearing and 16% for chemical clearing in Regional Ecosystem 8.12.2; and b) 10% for mechanical clearing and 20% for chemical clearing in Regional Ecosystems: 8.12.3, 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20. AND T.4.3 Clearing does not occur: a) On soils with a depth less than 45 centimetres; and b) On dispersible soils where the soil A horizon is less than 30 centimetres.
PR T.5 To ensure clearing does not cause land degradation and to maintain ecological processes and to manage environmental effects of clearing, the landscape is protected against increased	**AS T.5** Clearing does not occur: a) where regional ecosystems 8.12.9, 8.12.12 and 8.12.20 are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a geological map; and

Performance Requirement	Acceptable Solution
salinity and waterlogging and the salinisation of ground and surface water is prevented.	b) in existing or potential recharge areas; and c) in or within 200 metres of discharge areas where basal area density is greater than 4 metres^2 per hectare; and d) in or within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare; and e) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
PR T.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils is prevented.	**AS T.6** T.6.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline. AND T.6.2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.
PR T.7 To prevent the loss of biodiversity, thinning only occurs in areas where demonstrated thickening has occurred.	**AS T.7** T.7.1 Clearing only occurs in areas where it is demonstrated that the density of the vegetation has thickened. AND T.7.2 Clearing only occurs in areas of thickening which is demonstrated by: 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 density or extent of vegetation that is inconsistent with of the

Performance Requirement	Acceptable Solution
	range of densities of the regional ecosystem surrounding that locality or c) finding that the species is not listed in the description of the regional ecosystem[14].
PR T.8 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.	**AS T.8** Clearing in all remnant regional ecosystems: a) does not clear mature or older plants that contain holes or habitat features; b) attains the species composition, size classes and densities typical of the regional ecosystem surrounding that locality; and c) maintains viable populations of each species present and listed in the regional ecosystem description[15]; and d) does not remove pre-existing thick patches of vegetation; and e) achieves a mosaic pattern of the range of densities of the regional ecosystem surrounding that locality.

[14] 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.

[15] 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 Encroachment

Performance Requirement	Acceptable Solution
PR E.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS E.1** Mechanical clearing does not occur within: a) in natural wetlands, lakes, and springs; and, b) in the following regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7, 8.2.11, 8.3.4, 8.3.11, and 8.3.13; and c) 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes, and springs. d) 100 metres from the static high water mark of natural regionally significant wetlands, lakes, and springs. e) 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR E.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.	**AS E.2** Clearing: a) does not alter species composition or densities typical of the regional ecosystem; and b) maintains viable populations of each species present and listed in the regional ecosystem description[16].
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.	**AS E.3** Mechanical clearing does not occur in or within: a) Sub-region 2 and 6: a. 25 metres from each high bank of each stream order 1, 2, 3 & 4; and b. 50 metres from each high bank for all other stream orders; b) all other subregions: a. 50 metres from each high bank of each stream order 1, 2, 3 & 4; and b. 100 metres from each high bank for all other stream orders.

[16] 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
PR E.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.	**AS E.4** E.4.1 Clearing does not occur on slopes greater than 5% AND E.4.2 Clearing does not occur: a) On soils with a depth less than 45 centimetres; and b) On dispersible soils where the soil A horizon is less than 30 centimetres. AND E 4.3 Clearing must not be undertaken in a manner that allows negative environmental effects from soil erosion to occur outside the permit area.
PR E.5 To ensure clearing does not cause land degradation and to maintain ecological processes and to manage environmental effects of clearing, the landscape is protected against increased salinity and waterlogging and the salinisation of ground and surface water is prevented.	**AS E.5** E.5.1 Clearing does not occur: a) where regional ecosystems 8.12.9, 8.12.12 and 8.12.20 are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a geological map; and b) in existing or potential recharge areas; and c) in or within 200 metres of discharge areas where basal area density is greater than 4 metres^2 per hectare; and d) in or within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare; and e) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
PR E.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils is prevented.	**AS E.6** E.6.1 Mechanical clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.

Performance Requirement	Acceptable Solution
	AND E.6.2 Mechanical clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.
PR E.7 To prevent the loss of biodiversity, clearing for encroachment only occurs in areas where demonstrated encroachment has occurred.	**AS E.7** E.7.1 Clearing for encroachment only occurs in a regional ecosystem for which an application for clearing of encroachment may be accepted under the *Vegetation Management Act 1999* section 22A(2); AND E.7.2 Clearing only occurs in areas of encroachment which is demonstrated by: 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.
PR E.8 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.	**AS E.8** Clearing: a) attains the species 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 Industry[17]

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	Acceptable Solution
PR X.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS X.1** Clearing does not occur: a) in natural wetlands, lakes, and springs; or, b) in regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7 8.2.11, 8.3.4, 8.3.11, and 8.3.13; or c) within: i). 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes, and springs. ii). 100 metres from the static high water mark of natural regionally significant wetlands, lakes, and springs. iii). 50 metres from the static high water mark of all other natural significant wetlands, lakes, and springs.
PR X.2 To prevent loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained	**AS X.2** X.2.1 Vegetation is retained in corridors with a 5:1 length to width ratio, which provide connectivity between: a) clumps of retained vegetation on the property or on adjoining properties; and b) wetlands; and c) endangered or of concern regional ecosystems.

[17] 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	Acceptable Solution
	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.
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: 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.	**AS X.3** Clearing does not occur in or within: a) Sub-region 2 and 6: i) 25 metres from each high bank of each stream order 1, 2, 3 & 4 watercourse; and ii) 50 metres from each high bank for all other stream orders; b) all other subregions: i) 50 metres from each high bank of each stream order 1, 2, 3 & 4 watercourse; and ii) 100 metres from each high bank for all other stream orders. c) the following regional ecosystems: 8.3.1 and 8.3.3.
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.	**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. AND X 4.2 Clearing is: 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.
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.	**AS X.5** X.5.1 Clearing does not occur: a) In Drainage Basin Sub Areas that have less than 30% remnant vegetation coverage; and b) where regional ecosystems 8.12.9, 8.12.12 and 8.12.20 are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or

Performance Requirements	Acceptable Solution
	Campwyn Beds as identified by a geological map; and c) in existing or potential recharge areas; and, d) within 200 metres of discharge areas where basal area density is greater than 4 metres^2 per hectare; and e) within 500 metres of discharge areas where basal area density is less than 4 metres^2 per hectare. X.5.2 Clearing does not occur in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing.
PR X.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils (ASS) is prevented.	**AS X.6** X.6.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline. AND X.6.2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.

Performance Requirements	Acceptable Solution
PR X.7 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.	**AS X.7** 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: 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; AND 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: 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.

Performance Requirements	Acceptable Solution
PR X.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.	**AS X.8** X.8.1 Clearing does not occur in an area of vegetation retained as a condition of a previous development permit for clearing on the property; AND X.8.2 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; AND X.8.3 Clearing is: a) staged in line with operational needs to restrict clearing to the area required for active extractive activity at any one time; and 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 Land[18]

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
PR R.1 Prevent loss of biodiversity and maintain ecological processes associated with natural wetlands, lakes and springs.	**AS R.1** Clearing does not occur: a) in natural wetlands, lakes, and springs; or, b) in regional ecosystems: 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.2.4, 8.2.7 8.2.11, 8.3.4, 8.3.11, and 8.3.13; or c) within: i) 200 metres from the static high water mark of natural bioregionally significant wetlands, lakes and springs. ii) 100 metres from the static high water mark of natural regionally significant wetlands, lakes and springs. iii) 50 metres from the static high water mark of all other natural significant wetlands, lakes and springs.
PR R.2 To prevent the loss of biodiversity and to maintain ecological processes, viable networks of wildlife habitat are maintained.	**AS R.2** R.2.1 Clearing does not isolate endangered and of concern regional ecosystems, or natural wetlands; R.2.2 Vegetation is retained in a) Clumps with a perimeter (metre) to area (hectare) ratio of less than 200:1 that are: i) 10 hectares for sub-regions one, two and six; and; ii) 50 hectares for all other sub-regions; and b) Corridors between clumps with widths of: i) 50 metres for sub-regions one, two, and six; and ii) 200 metres for all other sub-regions. AND R.2.3 At least 50% of the retained vegetation is to be contained within 1 or 2 clumps.

[18] 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 Act1994* for agriculture or grazing purposes.

Performance Requirements	Acceptable Solution
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: 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.	**AS R.3** Clearing does not occur in or within: a) Sub-region 2 & 6: i) 25 metres from the high bank of each stream order 1, 2, 3 & 4 watercourse. ii) 50 metres from the high bank for all other stream order watercourses. b) all other subregions: i) 50 metres from the high bank of each stream order 1, 2, 3 & 4 watercourses ii) 100 metres from the high bank for all other stream order watercourses; and c) regional ecosystem: 8.3.3.
PR R.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.	**AS R.4** R.4.1 Clearing does not occur in regional ecosystems: 8.3.13, 8.12.8, 8.12.11, 8.12.14, 8.12.15, 8.12.17, 8.12.21, 8.12.24, 8.12.28, 8.12.29, & 8.12.30. R.4.2 Clearing does not occur on slope limits in excess of 5% except for the regional ecosystems which have maximum slope limits specified below: a) 4% for mechanical clearing and 8% for chemical clearing in regional ecosystems: 8.5.1, 8.5.2, & 8.5.3; b) 5% for mechanical clearing and 10% for chemical clearing in regional ecosystems: 8.3.5, 8.3.6, 8.3.8, 8.3.9, 8.3.10, & 8.3.11; c) 6% for mechanical clearing and 10% for chemical clearing in Regional Ecosystem: 8.3.2; d) 8% for mechanical clearing and 16% for chemical clearing in regional ecosystems: 8.12.1, 8.12.2, & 8.12.10; e) 10% for mechanical clearing and 20% for chemical clearing in regional ecosystems: 8.8.1, 8.11.1, 8.11.2, 8.11.3, 8.11.4, 8.11.5, 8.11.6, 8.12.4, 8.12.5, 8.12.6, 8.12.7, 8.12.9, 8.12.12,8.12.13, 8.12.16, 8.12.18, 8.12.19, 8.12.20, 8.12.22, 8.12.23, 8.12.25, 8.12.26, & 8.12.27; and, f) 20% for mechanical clearing and 20% for

Performance Requirements	Acceptable Solution
	chemical clearing in Regional Ecosystem: 8.12.3. R.4.3 Clearing does not occur: a) On soils with a depth less than 45cm; and b) On dispersible soils where the soil A horizon is less than 30cm.
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 are prevented.	**AS R.5** Clearing does not occur: a) where all or part of regional ecosystems: 8.12.6, 8.12.7, 8.12.9, 8.12.12, and 8.12.20, are situated on the Carmilla Beds, Lizzie Creek Volcanics, and or Campwyn Beds as identified by a 1:100 000 Geological map. b) in existing or identified potential discharge areas; and c) within 200 metres of existing or potential discharge areas where the basal area is greater than 4 metres^2 per hectare; and d) within 500 metres of existing or potential discharge areas where the basal area is less than 4 metres^2 per hectare; and e) in areas subject to waterlogging or areas at risk of waterlogging as a result of clearing; and f) in priority recharge areas.
PR R.6 To ensure clearing does not cause land degradation and to maintain ecological processes, the release of acid and associated metal contaminants into the environment from the disturbance of acid sulfate soils is prevented.	**AS R.6** R.6.1 Clearing in lands below 5 metres Australian Height Datum that is in Land Zones 1, 2 and 3: a) does not result in disturbance or exposure of Acid Sulfate Soils or changes to the hydrology of the site likely to result in aeration of horizons containing iron sulfides or mobilisation of acid and metals; or b) is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline. AND R.6.2 Clearing in areas with a high probability of Acid Sulfate Soils, is conducted in accordance with an Acid Sulfate Soil Environmental Management Plan prepared in accordance with the *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* and Guideline.

8. Dictionary

A horizon: 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.

Acid sulfate soils: are soils, sediments or peat containing highly acidic soil horizons or layers affected by the oxidation of soil material that is rich in iron sulfides, primarily pyrite. This oxidation produces hydrogen ions in excess of the sediments capacity to neutralize the acidity, resulting in soils of pH 4 or less. These soils can sometimes be identified by the presence of secondary sulfate salts such as jarosite.

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.

Contributing Catchment means, for:

a) a local ground water flow system, the area of the surface catchment measured above a point 5 km downstream from an existing or potential discharge area;
b) an intermediate groundwater flow system, the area encompassed by a 15km 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 larger tracts of native vegetation; that are used or capable of being used by wildlife for movement; and are capable of being habitat in their own right.

Declared pest: is a pest declared under the *Land Protection (Pest and Stock Route Management) Act 2002*.

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 remnant vegetation 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.

Discharge area (potential or existing): 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) is 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.

Floristic composition (or species composition): is determined by the description of the regional ecosystem.

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

Fodder species: 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.

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

Geological map: means the most recent version of published geological data at 1:100 000, 1:250 000, 1:500 000, 1:1 000 000, or 1: 250 000 scale.

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

High probability of Acid Sulfate Soils: are areas identified as having a high probability of Acid Sulfate Soil from an approved Department of Natural Resources, Mines & Energy Acid Sulfate Soil risk map.

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

Lake: is a lagoon, billabong, or other natural 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 stand as dominants or co-dominants; and
b) have a trunk diameter, measured 1.3m above the ground, more than one 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 10cm in diameter and more than 2 metres above the ground.

Mechanical clearing: is the use of machinery to clear vegetation, which disturbs the soil surface or uproots woody vegetation.

Non-native plants: are those that are non-endemic to Australia.

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: constitutes a lease, a license or permit under the Land Act, a single freehold lot or an aggregation of freehold lots that are worked as a single unit.

Protecting: when offsetting means the area is either: declared as an area of high nature conservation value or vulnerable to land degradation under the *Vegetation Management Act 1999*; a protected tenure under the *Nature Conservation Act 1992*; or lawfully covenanted under the *Land Title Act 1994* and *Integrated Planning Act 1997*.

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.

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

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, soils 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 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 using a chain or cable linked between 2 tractors, bulldozers or other traction engines.

Transport Route: means the route used to transport[19] extractive materials to markets. For a Key Resource Area identified by a State Planning Policy on Protection of Extractive Resources, the terms 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 in spite of threatening processes.

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.

Wetlands: Wetlands: are one or more of the following–

a) areas of permanent or periodic/intermittent inundation, with water that is static or flowing fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 metres. 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 in the upper levels.
    iii. the substratum is not soil and is saturated with water, or covered by shallow water at some time;
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.
c) those areas listed in: Environment Australia (2001). *A Directory of Important Wetlands in Australia*. Third Edition. Environment Australia, Canberra.

[19] Generally 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.

Bioregionally Significant Wetlands:

- Ramsar wetlands;
- Natural or other wetlands identified in those identified in Environment of Australia (2001) *A Directory of Important Wetlands in Australia, Third Edition*. Environment of Australia, Canberra.
- Within the Great Barrier Reef World Heritage area.

Regionally Significant Wetlands:

- Wetlands identified in published local government reports and/or planning schemes;
- Wetlands published in regional Natural Resource Management strategies and plans; and,
- Wetlands listed as fish habitat reserves.

Other Significant Wetlands:

- Those areas shown as a swamp, lake, marsh, waterhole, wetland, billabong, pool or spring on the latest Sunmap or Commonwealth of Australia 1:100000 or 1:250 000 topographic map series, with the exception of those identified as Bioregionally or Regionally Significant Wetlands; and
- Any natural wetland that occurs within those regional ecosystems identified in AS: S.1, W.1, M.1, F.1, X.1, and R.1.

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

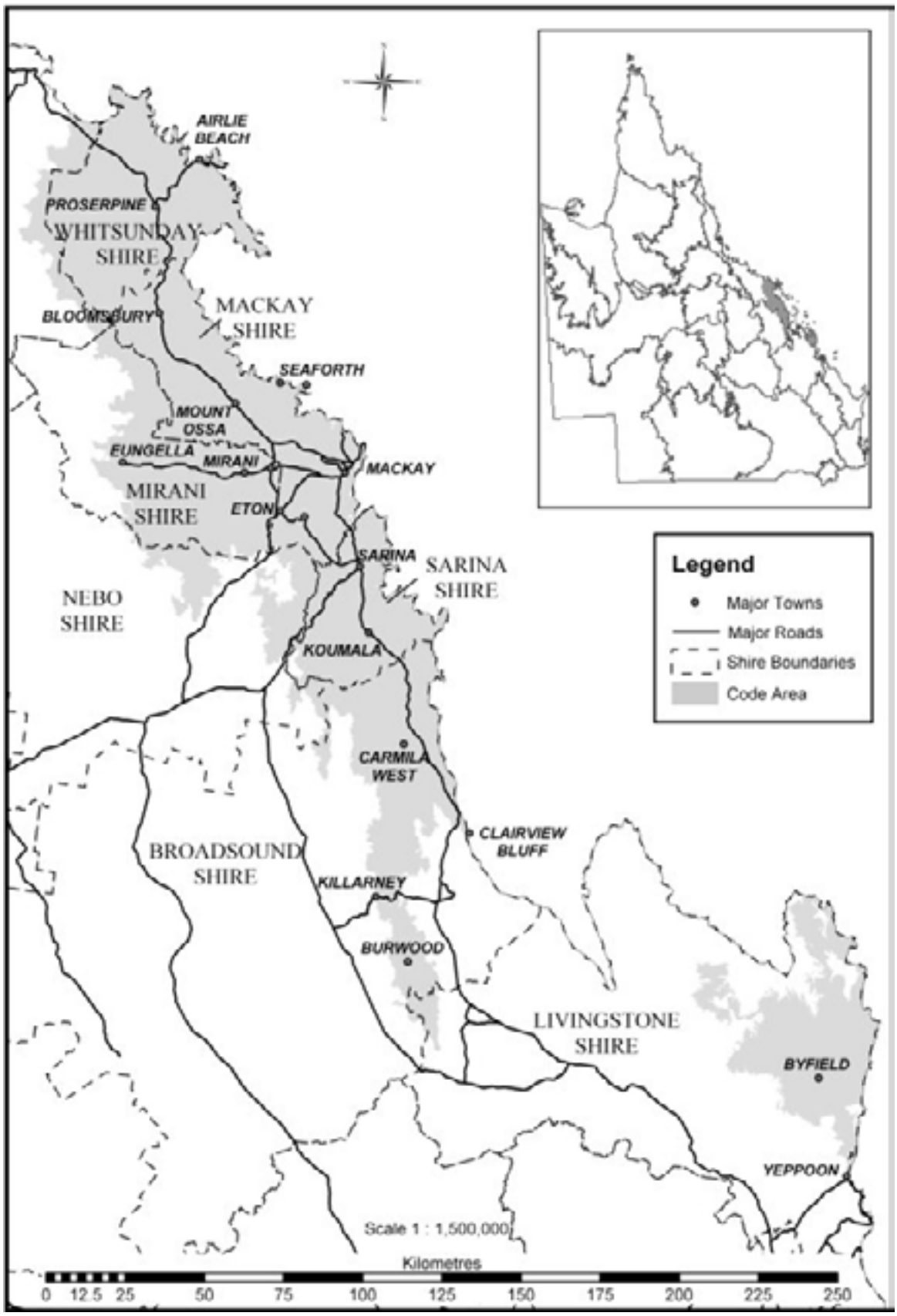

Figure 1: Location of Central Queensland Coast Bioregion

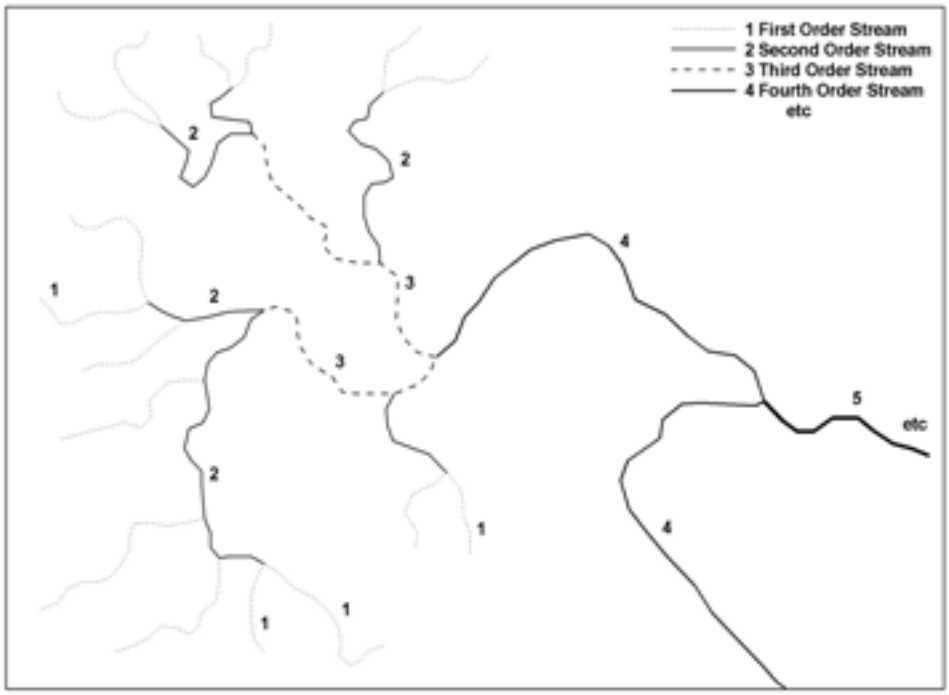

Figure 2: Diagrammatic view of stream ordering