

Integrated Forestry Operations Approval for Brigalow- Nandewar Region

INCORPORATING AMENDMENTS

We, the undersigned Ministers, pursuant to Part 4 of the *Forestry and National Park Estate Act 1998*, approve the carrying out of forestry operations.

The carrying out of forestry operations by the Forestry Commission of New South Wales (“Forests NSW”) or any other person is subject to the conditions of this approval, including the terms of the relevant licences set out in this approval.

Minister for Climate Change and the Environment

Dated:

Minister for Primary Industries

Dated:

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added

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CHAPTER 1: GENERAL

PART 1.1 – PRELIMINARY

Division 1 - General provisions relating to application and scope of approval

1. Interpretation – significant concepts

- (1) Terms used in this approval that are defined in the Forestry and National Park Estate Act 1998 have the meanings set out in that Act if not otherwise defined in this approval.

AMENDMENT 1
1 March 2013
Clause 1(1)(a)
added

- (1)(a) In this approval:

References to Forests NSW, FNSW, SFNSW or Forestry Commission are taken to be “Forestry Corporation of New South Wales” [FCNSW] as defined by the Forestry Act 2012.

References to terms and meanings in the Forestry and National Park Estate Act 1998 are taken as terms and meanings under the Forestry Act 2012.

- (2) In this approval:

“ancillary road construction” means ancillary road construction within the meaning of the Forestry and National Park Estate Act 1998;

“Brigalow-Nandewar Region” means the land to which this approval applies as described in clause 4;

“forest products operations” means forest products operations within the meaning of the Forestry and National Park Estate Act 1998;

“forestry operations” means forestry operations within the meaning of the Forestry and National Park Estate Act 1998;

“Forests NSW” or “FNSW” means the Forestry Commission of New South Wales constituted by the Forestry Act 1916;

Note: The Forestry Commission may use the name “Forests NSW” under section 7 (4) of the Forestry Act 1916.

“logging operations” means logging operations within the meaning of the Forestry and National Park Estate Act 1998 (being the cutting and removal of timber from land for the purpose of timber production);

“Ministers” means those Ministers who are authorised to amend this approval; and

“on-going forest management operations” means on-going forest management operations within the meaning of the Forestry and National Park Estate Act 1998.

2. Notes and headings

- (1) In this approval, notes are provided to assist understanding only. They do not form part of this approval.

(2) Headings do not form part of this approval.

3. Duration of approval

This approval commences one calendar month after it is signed by the Minister for Climate Change and the Environment or the Minister for Primary Industries, whichever is the later date.

This approval has effect up to and including 31 December 2025.

4. Description of the area of the State to which approval applies

(1) This approval applies to State forests and other Crown-timber lands within the Brigalow and Nandewar Community Conservation Area as defined in the Brigalow and Nandewar Community Conservation Area Act 2005, including any land which becomes Crown-timber land during the term of this approval. However, it does not apply to any land within that Area to which the Integrated Forestry Operations Approval for the Upper North East Region or the Lower North East Region applies when this approval commences.

(2) This approval does not apply to:

(a) any part of the national park estate, being:

- (i) land declared as a wilderness area under the Wilderness Act 1987 or the National Parks and Wildlife Act 1974, or
- (ii) land reserved or dedicated under the National Parks and Wildlife Act 1974, or
- (iii) land dedicated or set apart as a flora reserve under the Forestry Act 1916, or
- (iv) land dedicated or reserved for a similar public purpose under the Crown Lands Act 1989, or

(b) any plantation within the meaning of the Plantations and Reafforestation Act 1999, or

(c) any land that becomes:

- (i) part of the national park estate (as described in paragraph (a)), or
- (ii) a plantation within the meaning of the Plantations and Reafforestation Act 1999,

during the term of this approval.

Note: Land in Zones 1, 2 and 3 within the Brigalow and Nandewar Community Conservation Area is excluded from the operation of this approval because it is land that is reserved under the National Parks and Wildlife Act 1974.

5. Description of forestry operations to which approval applies

(1) This approval applies to the forestry operations described in subclauses (2) to (7) in the Brigalow-Nandewar Region.

(2) This approval applies to the following logging operations:

- (a) logging operations for the purpose of producing logs (of any quality and kind) from white cypress trees (being trees of the species *Callitris glaucophylla*), but no more than 716,492 m³ of logs over the 17 year period commencing 1 January 2009, and no more than 57,000 m³ of logs (that is, 41,000 m³ + (40% x 41,000 m³)) in any one financial year,

Note: The figure of 41,000 m³ in the above paragraph reflects the annual allocation of white cypress logs under long-term Wood Supply Agreements entered into in 2006. The figure of 11,992 m³ represents the quantity of wood forfeited under the Agreements up to 30 June 2008 (that is, the quantity of wood that, when this approval was granted, was no longer available under the terms of those Agreements, being that part of the accumulated undercut that cannot be carried forward into subsequent years).

- (b) logging operations for the purpose of producing logs (of any quality and kind) from western ironbark trees (being trees of the species *Eucalyptus crebra*, *Eucalyptus fibrosa* and *Eucalyptus nubila*), but no more than 35,648 m³ of logs (that is, (2,050 m³ x 17) + 798 m³) over the 17 year period commencing 1 January 2009, and no more than 2,870 m³ of logs (that is, 2,050 m³ + (40% x 2,050 m³)) in any one financial year,

Note: The figure of 34,850 m³ in the above paragraph reflects the annual allocation of Western ironbark logs under long-term Wood Supply Agreements entered into in 2006. The figure of 798 m³ represents the quantity of wood forfeited under the Agreements up to 30 June 2008 (that is, the quantity of wood that, when this approval was granted, was no longer available under the terms of those Agreements, being that part of the accumulated undercut that cannot be carried forward into subsequent years).

- (c) logging operations for the purpose of producing logs (of any quality and kind) from trees of species not referred to in paragraph (a) or (b), but no more than 1,500 m³ of logs in any one financial year,
- (d) logging operations for the purpose of producing timber products (such as craftwood and vineposts), other than logs and firewood, from any species of tree, but no more than 1,500 m³ of such timber products in any one financial year.

Note: A reference to logs in subclause (2) does not include a reference to firewood. Firewood is dealt with separately in subclauses (3) and (4).

(3) This approval applies to forestry operations for the purpose of producing firewood from any of the following:

- (a) residue timber,
(b) dead trees cut in logging operations up to (and including) 31 December 2015,
(c) wood collected from the floor of the forest,
(d) timber obtained from bull oak (being trees of the species *Allocasuarina luehmannii*) in logging operations,
(e) timber obtained from white cypress trees (being trees of the species *Callitris glaucophylla*) in logging operations.

(A reference in this subclause to logging operations includes, but is not limited to, logging operations referred to in subclause (2).)

(4) The forestry operations described in subclause (3) are only forestry operations to which this approval applies in so far as they produce:

- (a) no more than 71,483 m³ of firewood (that is, (9,800 m³ x 7) + 2, 883 m³) over the 7 year period up to and including 31 December 2015, and no more than 13,720 m³ (that is, 9,800 m³ + (40% x 9,800 m³)) in any one financial year during that period, and
- (b) no more than 65,000 m³ of firewood (that is, 6,500 m³ x 10) over the 10 year period commencing 1 January 2016, and no more than 9,100 m³ (that is, 6,500 m³ + (40% x 6,500 m³)) in any one financial year during that period.

Note: The figure of 9,800 m³ in paragraph (a) above reflects the annual allocation of firewood under contractual commitments existing at the commencement of this approval. The figure of 2,883 m³ represents the amount by which the quantity of Western ironbark firewood produced fell below the annual allocation in the period from 2006 to 30 June 2008.

(5) This approval applies to forest products operations, namely, the harvesting of products of trees, shrubs and other vegetation (other than timber) that are of economic value, such as broombush.

(6) This approval applies to on-going forest management operations, namely, the following activities relating to the management of land for timber production:

- (a) thinning,
- (b) bush fire hazard reduction,
- (c) grazing,
- (d) bee-keeping,
- (e) weed, pest and disease control,
- (f) other silvicultural activities, including activities to manipulate or affect forest stand structure or composition by, for example, the use of fire.

(7) This approval applies to ancillary road construction, namely, the provision of roads and fire trails, and the maintenance of existing railways, to enable or assist in the carrying out of forestry operations, as defined in the Forestry and National Park Estate Act 1998.

(8) For the purpose of determining whether or not a particular operation is a forestry operation of a kind described in this clause, it does not matter that the operation has more than one purpose or satisfies more than one description. In particular, to the extent that timber is cut and removed in an operation for the purpose of timber production, then it is a logging operation for the purpose of producing the volume or other quantity of logs, firewood or other timber product (or any combination of these) that Forests NSW predicts will be produced in the operation.

(9) Despite any other provision of this clause, this approval applies only to forestry operations on Crown-timber lands that are not within State forest if they are carried out by, or on behalf of, Forests NSW or are authorised by Forests NSW under the Forestry Act 1916.

(10) This approval does not apply to forestry operations on any land for the purpose of clearing natural forest:

- (a) to establish a timber plantation (within the meaning of the Plantations and Reafforestation Act 1999), or
- (b) for agricultural or non-forestry uses.

Note: The above reflects section 24 (2) of the Forestry and National Park Estate Act 1998.

(11) A reference in this clause to a forestry operation authorised by Forests NSW under the Forestry Act 1916 (on Crown-timber lands that are not within a State forest) is a reference to a forestry operation carried out under the authority of or in accordance with any of the following:

- (a) a timber licence, products licence or clearing licence issued under Division 2 of Part 3 of the Forestry Act 1916,
- (b) an authorisation issued under section 30I of the Forestry Act 1916 (except an authorisation issued under delegation from Forests NSW by a person who is not a member of staff of Forests NSW),
- (c) an agreement entered into with Forests NSW,
- (d) a permit granted under Part 4 of the Forestry Act 1916.

A reference to a forestry operation authorised by Forests NSW does not include a reference to any thing done pursuant to a lease or licence issued by or with the approval of Forests NSW under the Crown Lands Act 1989 or the Western Lands Act 1901.

6. Terms of licence under Threatened Species Conservation Act 1995

(1) Forests NSW and any other person carrying out forestry operations covered by this approval are authorised to carry out any such operation that is likely to result in one or more of the following:

- (a) harm to any animal that is of, or is part of:
 - (i) a threatened species, or
 - (ii) an endangered population, or
 - (iii) the endangered ecological community of White Box Yellow Box Blakely's Red Gum Woodland (as described in the final determination of the Scientific Committee to list the ecological community), or
 - (iv) the endangered ecological community of Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions (as described in the final determination of the Scientific Committee to list the ecological community),
- (b) harm to protected fauna,
- (c) the picking of any plant that is of, or is part of:
 - (i) a threatened species, or
 - (ii) an endangered population, or
 - (iii) the endangered ecological community of White Box Yellow Box Blakely's Red Gum Woodland (as described in the final determination of the Scientific Committee to list the ecological community), or
 - (iv) the endangered ecological community of Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions (as described in the final determination of the Scientific Committee to list the ecological community),
- (d) the picking of any plant that is a protected native plant,

- (e) damage to habitat (other than critical habitat) of a threatened species, an endangered population or an endangered ecological community referred to in paragraph (a) (iii) or (iv) and paragraph (c) (iii) or (iv).
- (2) Forests NSW and any other person undertaking the construction or other provision of fire trails for emergency fire fighting purposes are authorised to undertake any such operation that is likely to result in:
- (a) harm to any animal that is part of, or the picking of any plant that is part of, an endangered ecological community, or
 - (b) damage to habitat (other than critical habitat) of an endangered ecological community.
- (3) The authority conferred by subclauses (1) and (2) is subject to the conditions and restrictions set out in:
- (a) Chapter 2 (Protection of drainage features and wetlands), and
 - (b) Chapter 3 (Protection of threatened species).
- (4) Pursuant to section 34 of the *Forestry and National Park Estate Act 1998*, this clause, and the conditions and restrictions referred to in subclause (3), are the terms of a licence under the *Threatened Species Conservation Act 1995*. The provisions of this Part are also terms of that licence in so far as they relate to the application and interpretation of those terms.
- (5) In this clause, “animal”, “critical habitat”, “endangered ecological community”, “endangered population”, “habitat”, “harm”, “picking”, “plant”, “protected fauna”, “protected native plant”, “Scientific Committee” and “threatened species” have the same meanings as in the *Threatened Species Conservation Act 1995*. “Threatened species, population or ecological community” has the same meaning as in Part 6 of the *Threatened Species Conservation Act 1995*.

7. Terms of licence under the Protection of the Environment Operations Act 1997

- (1) Pursuant to section 34 of the *Forestry and National Park Estate Act 1998*, this approval contains the terms of a licence under the *Protection of the Environment Operations Act 1997* (the “environment protection licence”). Accordingly, Forests NSW and any other person carrying out forestry operations set out in subclause (2) are taken to hold a licence in those terms under the *Protection of the Environment Operations Act 1997*.
- (2) The purpose of the environment protection licence is to control the carrying out of the following forestry operations covered by this approval in the Brigalow-Nandewar Region for the purpose of regulating water pollution resulting from any such operation, as referred to in section 122 of the *Protection of the Environment Operations Act 1997*:
- (a) logging operations (including any thinning operation involving the removal of timber cut in the operation for the purpose of its use in timber products),
 - (b) ancillary road construction.

Note: Section 122 of the Protection of the Environment Operations Act 1997 provides that it is a defence in proceedings against a person for an offence of polluting waters under that Act if the person establishes that the pollution was regulated by an environment protection licence held by the person or another person and the conditions to which that licence was subject relating to the pollution of waters were not contravened.

- (3) This clause, and the conditions set out in the following Chapters, are the terms of the environment protection licence, but only in their application to the operations described in subclause (2):
- (a) Chapter 2 (Protection of drainage features and wetlands) (except as indicated in clause 104 (2) and (3)),
 - (b) Chapter 4 (Protection of water and the aquatic environment from pollution - planning and reporting on matters),
 - (c) Chapter 5 (Protection of water and the aquatic environment from pollution - operational matters).

The provisions of this Part are also terms of the environment protection licence in so far as they relate to the application and interpretation of that licence.

- (4) For the purposes of section 56 of the Protection of the Environment Operations Act 1997, the premises to which the environment protection licence set out in this approval applies are the Brigalow-Nandewar Region.

Note: The terms of the environment protection licence constitute Licence No. 12981 for the purposes of DECCW's administrative system.

8. Terms of licence under Part 7A of the Fisheries Management Act 1994

- (1) Forests NSW and any other person carrying out forestry operations covered by this approval are authorised to carry out any such operation that is likely to result in one or more of the following:
- (a) harm to a threatened species, population or ecological community,
 - (b) damage to a critical habitat,
 - (c) damage to a habitat of a threatened species, population or ecological community.
- (2) The authority conferred by subclause (1) is subject to the conditions and restrictions set out in the following Chapters:
- (a) Chapter 2 (Protection of drainage features and wetlands), except as indicated in clause 104 (3),
 - (b) Chapter 4 (Protection of water and the aquatic environment from pollution - planning and reporting on matters), except Part 4.3,
 - (c) Chapter 5 (Protection of water and the aquatic environment from pollution - operational matters).
- (3) Pursuant to section 34 of the Forestry and National Park Estate Act 1998, this clause, and the conditions and restrictions referred to in this clause, are the terms of a licence under Part 7A of the Fisheries Management Act 1994. The provisions of this Part are also terms of that licence in so far as they relate to the application and interpretation of those terms.
- (4) In this clause, “critical habitat”, “habitat”, “harm” and “threatened species, population or ecological community” have the same meanings as in Part 7A of the Fisheries Management Act 1994.

Division 2 – Interpretation

9. Dictionary for approval

- (1) Except as the context or subject-matter otherwise indicates or requires, in this approval (other than in Division 1 of this Part):

“area of heath” means an area that naturally supports less than ten trees with a dbhob of more than 100 mm per hectare and in which:

- (a) more than 30% of the projected foliage cover (that is, the area of ground covered by projecting the outline of the foliage vertically to the ground) consists of mainly sclerophyllous and semi sclerophyllous shrubs (being woody plants with many stems arising at or near the base), and
- (b) the sclerophyllous and semi sclerophyllous shrubs (except for broombush) are generally less than 3 metres high at maturity;

“basal area” of a tree means the cross-sectional area of a tree calculated using the dbhob of the tree;

“batter” means an earth slope formed by the placing of fill material or by cutting into the natural hillside;

“borrow pit” means a pit from which fill material is extracted for road, track or trail construction, re-opening, upgrading or maintenance;

“bridge” means a structure that carries a road, bush track, extraction track or fire trail over a drainage feature or wetland by spanning it;

“buffer strip” means a buffer strip around an unmapped drainage depression as described in Part 5.5;

“bull oak” means trees of the species *Allocasuarina luehmannii*;

“bush fire hazard reduction work” has the same meaning as in the Rural Fires Act 1997;

Note: As at the commencement of this approval, “bush fire hazard reduction work” was defined as follows in the Rural Fires Act 1997:

- “(a) the establishment or maintenance of fire breaks on land, and*
- (b) the controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bush fire,*

but does not include construction of a track, trail or road.”

“bush track” means an identifiable route (other than an extraction track) between two or more places that is created without earthworks or any other formal construction and that is used (whether or not only occasionally) primarily by cars, trucks, 4WDs and AWDs, for the purpose of enabling or assisting the carrying out of forestry operations;

“causeway” means a natural or man made crossing (other than a bridge or a culvert crossing) that enables motor vehicles to cross a drainage feature;

“cliff” means a rocky slope at least 70 degrees steep, at least four metres in height and at least 20 metres in length;

“crossbank” means a hump of earth placed across a road, bush track, extraction track or fire trail to baulk the flow of water so that it is diverted from the surface;

“culvert” means an enclosed conduit (or adjacent enclosed conduits) for conveying water in a drainage feature underneath a road, bush track, extraction track or fire trail;

“dam” means an artificial pond or other water body that has been constructed for the purpose of watering domestic stock or for fire fighting (or both) and that:

- (a) is capable of holding more than 20 cubic metres of water, and
- (b) has been built by placing an earthen bank across a natural gully or depression;

“dbhob”, or “diameter at breast height over bark”, means the diameter of a tree (including its bark) measured, using a diameter tape, at right angles to the axis of the tree and:

- (a) at 1.3 metres above the ground (on the up slope side of the tree, if the tree is on a slope), or
- (b) where the tree is deformed, or is branched, at 1.3 metres above the ground, at a point above that height (but as close to it as possible) where the trunk or stem becomes more cylindrical;

“DECCW” means the Department of Environment, Climate Change and Water and, in the case of a reference in a provision that is a term (or that is applied as a term) of the licence under the Protection of the Environment Operations Act 1997, or in connection with such a provision, is a reference to the Environment Protection Authority constituted by the Protection of the Environment Administration Act 1991;

“DII (Fisheries)” means that group of staff within the Department of Industry and Investment principally involved in the administration of Part 7A of the Fisheries Management Act 1994;

Note: The Fisheries Ecosystems Branch of the Department of Industry and Investment was the group of staff principally responsible for the administration of Part 7A of the Fisheries Management Act 1994 as at the commencement of this approval.

“drainage depression” means a level to gently inclined shallow, open depression with a smoothly concave cross-section, rising to moderately inclined hill slopes;

“drainage feature” means a drainage line or drainage depression;

“drainage feature protection zone” means a drainage feature protection zone described in clause 107 (being a protection zone around a drainage line or mapped drainage depression);

“drainage line” means a channel down which surface water naturally concentrates and flows and that exhibits either or both of the following features:

- (a) evidence of active erosion or deposition (for example, gravel, pebble, rock, sand bed, scour hole and nick points),
- (b) an incised channel of more than 30 centimetres in depth and having a defined bed and banks;

“drainage protection area” means a drainage protection area as described in clause 106;

“drainage structure”, in relation to a road, bush track, extraction track or fire trail, means a structure designed to direct water along, across or underneath the road, track or trail, and includes a catch drain, mitre drain, table drain, relief pipe, rollover bank and crossbank;

“environmentally significant area” means an environmentally significant area as described in Part 3.6;

“environmentally significant area for Part 2 Box Gum Woodland EEC” means an environmentally significant area described in clause 260 (3);

“event ID”, in relation to a forestry operation, means a unique identification number generated by Forests NSW’s harvest tracking system to refer to that operation;

“extraction track” means an identifiable route between two or more places used (whether or not only occasionally) primarily for the removal or extraction of timber cut in a logging operation, using either snigging or forwarding machinery, and generally from the logging site to the site of the log dump;

“fill” means excavated material that is used to raise the surface of an area;

“FMZ layer” means the Geographic Information System theme in ESRI Feature Class format (as current from time to time) that is called "ForestManagementZones" under the Feature Dataset "ForestFeatures" in Forests NSW’s File Geodatabase titled "WRA_FMZ20080101" (and its associated metadata), indicating the classification of land in accordance with the Forest Management Zoning System;

“Forest Management Zoning System” means the Forest Management Zoning (FMZ) land classification system described in the document entitled, “Forest Management Zoning in State Forests” (State Forests of New South Wales, December 1999);

“forest type” or “FT” means a forest type as described in the publication entitled, “Research Note 17 Forest Types of New South Wales” (Forestry Commission, 1989), or a forest type, known as a Lindsay forest type, as described in AD Lindsay, Forest types of the cypress pine zone (Forestry Commission, 1967) or as mapped by Forests NSW in accordance with criteria in either publication;

“forestry operation” means a forestry operation to which this approval applies, as described in clause 5;

“gravel pit” means a pit formed by extraction of gravel (being a naturally occurring mixture of coarse mineral particles larger than 2.0 millimetres and smaller than 75 millimetres in diameter);

“harvesting machine” means any mechanical or other harvester, rubber-tyred skidder, bulldozer or any other wheeled or tracked machine that is designed to be propelled by a motor that forms part of the machine and that is used for the cutting or removal of timber;

“Heritage Council” means the Heritage Council of New South Wales constituted under the Heritage Act 1977;

“heritage item” means any of the following:

- (a) an item of the environmental heritage within the meaning of the Heritage Act 1977,
- (b) an Aboriginal object within the meaning of the National Parks and Wildlife Act 1974,
- (c) an Aboriginal place within the meaning of the National Parks and Wildlife Act 1974;

“log dump” means an area where timber, or logs or other timber products, are assembled for processing or sorting before being loaded onto a truck, and includes a log landing and log stockpile;

“maintain” a road, bush track or fire trail means to carry out work within the existing prism of the road, track or trail to enable it to continue to be trafficable, but only if the majority of the stems of trees (of native species) growing within the prism of the road, track or trail (and requiring removal) have a dbhob of 100 mm or less and no such stem has a dbhob of more than 200 mm;

“major operation” means an operation carried out pursuant to a timber licence or products licence (issued under section 27A and section 27B, respectively, of the *Forestry Act 1916*) that authorises the holder to take a volume of timber or products in excess of 700 cubic metres (approximately 900 tonnes) per annum;

“mapped drainage depression” means a drainage depression that lies between any two sections of a mapped drainage line or a drainage depression that lies at the headwater or point of origin of a mapped drainage line;

“mapped drainage line” means a drainage line that is shown on the FMZ layer, and derived from information supplied by Land and Property Information New South Wales (LPI) (being part of the Department of Lands);

“merchantable”, in relation to a tree, means a tree that, in the opinion of a supervising forestry officer, appears capable of yielding a log or logs or other timber product that will meet a set of product specifications issued by Forests NSW (other than for firewood);

“minor operation” means an operation carried out pursuant to a timber licence or products licence (issued under section 27A and section 27B, respectively, of the *Forestry Act 1916*) the authorises the holder to take a volume of timber or products that does not exceed 700 cubic metres (approximately 900 tonnes) per annum;

“monthly advice” means the written advice prepared, or required to be prepared, each month by Forests NSW, on forestry operations, as referred to in Division 1 of Part 1.4;

“operational map for a forestry operation” means the operational map or maps prepared, or required to be prepared, under Division 3 of Part 1.3 as part of the site specific operational plan for the forestry operation;

“pest animal” means any animal identified in Forests NSW’s pest animal management plan (as current at the relevant time) as a pest animal present in the Brigalow-Nandewar Region or part of the Region;

“pollution” has the same meaning as in the *Protection of the Environment Operations Act 1997*;

“road” means an identifiable route (other than an extraction track) between two or more places that is built with some degree of formal construction involving earthworks and that is used (whether or not only occasionally) by cars, trucks, 4WDs and AWDs, for the purpose of enabling or assisting the carrying out of forestry operations;

“rocky outcrop” means an area:

- (a) where rocks or exposed boulders cover more than 70% of any 0.1 hectare area (30 metres by 30 metres), or
- (b) with skeletal soils (that is, an area with shallow soil where rocks are exposed), supporting heath (and sometimes an occasional emergent tree), or
- (c) that is classified as FT “rock” (FT no. 234) (whether or not the area also meets a description in paragraph (a) or (b)), or

- (d) where a combination of rocks or exposed boulders and skeletal soils cover more than 70% of any 0.1 hectare area (30 metres by 30 metres);

Note: A rocky outcrop may occur where the geology varies from the surrounding area (for example, a rhyolite outcrop).

“rollover bank” means a crossbank that is constructed with a smooth cross section and gentle batters and is well compacted to allow motor vehicles to be driven over it;

“runoff” means that portion of rainfall that becomes surface flow;

“saturated soil” means soil that cannot absorb or accept any more moisture;

“site specific operational plan for a forestry operation” means the site specific operational plan for a forestry operation that is referred to in Division 3 of Part 1.3 and is prepared, or is required to be prepared, in accordance with this approval;

“soil stabilisation measure” means a measure to prevent or control soil erosion by providing an energy-absorbent or energy resistant barrier on the soil surface;

“species protection zone” means a species protection zone for the protection of a threatened species or protected fauna as described in Part 3.6, being any of the species protection zones described in the following provisions:

- (a) clause 246 (Species protection zones for bird nests and roost sites),
- (b) clause 247 (Species protection zones for bat tree roosts),
- (c) clause 248 (Species protection zones for subterranean bat roosts),
- (d) clause 249 (Species protection zones for flying-fox camps),
- (e) clause 250 (Species protection zones for koalas (*Phascolarctos cinereus*)),
- (f) clause 251 (Species protection zones for the Pilliga mouse (*Pseudomys pilligaensis*)),
- (g) clause 252 (Species protection zones for the spotted-tailed quoll (*Dasyurus maculatus*)),
- (h) clause 253 (Species protection zones for the squirrel glider (*Petaurus norfolcensis*)),
- (i) clause 254 (Species protection zones for the barking owl within the barking owl nest and roost zone),
- (j) clause 255 (Species protection zones for the barking owl outside the barking owl nest and roost zone),
- (k) clause 256 (Species protection zones for the masked owl),
- (l) clause 258 (Species protection zones for plants),
- (m) clause 259 (Interim species protection zones for plants),
- (n) clause 260 (2) (Species protection zones for Part 1 Box Gum Woodland EEC),
- (o) clause 261 (Inland Grey Box Woodland Endangered Ecological Community – species protection zones);

“species protection zone for Inland Grey Box Woodland EEC” means a species protection zone described in clause 261;

“species protection zone for Part 1 Box Gum Woodland EEC” means a species protection zone described in clause 260 (2);

“spoil” means excess soil, rock or other material excavated during a forestry operation;

“tank” means an artificial pond or other water body that has been built for the purpose of watering domestic stock or for fire fighting (or both) and:

- (a) is capable of holding more than 20 cubic metres of water, and
- (b) has been built by excavating a depression and placing an earthen bank around all or part of the depression excavated to a level above the surrounding natural ground level;

Note: A tank may or may not have graded catch drains guiding surface water into it.

“unmapped drainage depression” means a drainage depression that is not a mapped drainage depression;

“unmapped drainage line” means a drainage line that is not a mapped drainage line;

“up-grade” a road or bush track means to widen, straighten the alignment (whether horizontal or vertical) of or otherwise improve the road or bush track;

“western ironbark tree” means a tree of any of the following species:

- (a) *Eucalyptus crebra*,
- (b) *Eucalyptus fibrosa*,
- (c) *Eucalyptus nubila*;

“wetland” means any vegetated depression with a seasonal, permanent or intermittent water table at or slightly above the floor of the depression (but does not include a dam or tank), typically having a vegetation type that indicates a wetter micro-environment than the land surrounding it;

“white cypress tree” means a tree of the species *Callitris glaucophylla* (being a softwood tree species); and

“Zone 3A ESA” means any area of land referred to in paragraph (h) of clause 244 (1) (being an environmentally significant area).

(2) A reference in this approval (other than in Division 1 of this Part) to:

- (a) a logging operation includes a reference to a thinning operation (being an on-going forest management operation) if timber is cut and removed in the operation for the purpose of its sale as or use in timber products, and
- (b) a burning operation is a reference to burning for the purpose of bush fire hazard reduction or for any other silvicultural purpose, such as burning to manipulate or affect forest stand structure or composition, and
- (c) a non-commercial thinning operation is a reference to a thinning operation that is carried out for silvicultural purposes (such as promoting the growth of retained trees) only and does not involve the removal of timber cut in the operation for the purpose of its sale as or use in timber products, and
- (d) Tableland hardwood species or Western hardwood species does not include a reference to bull oak (*Allocasuarina luehmannii*).

(3) A reference in this approval to a regional manager of Forests NSW is a reference to a regional manager of Forests NSW responsible for managing land within the Brigalow-Nandewar Region or a more senior officer of Forests NSW.

(4) A reference in this approval to an area of land in which the carrying out of an operation is prohibited or restricted is a reference to an area (such as a drainage protection area or an environmentally significant area) in which the carrying out of the operation is prohibited or restricted by virtue of this approval or by virtue of the Forest Management Zoning System or the application of any other law.

- (5) A reference in this approval to an approved soil assessor is a reference to a person who has satisfactorily completed a soil assessors' training course, approved by DECCW, including in the identification of dispersible soils and the assessment of the nature and characteristics of soil regolith.

10. References to miscellaneous forestry operations

A reference to a miscellaneous forestry operation in this approval is a reference to any of the following activities carried out by, or on behalf of, Forests NSW (but only to the extent to which the activity is a forestry operation to which this approval applies):

- (a) the felling of trees for the purpose of providing Forests NSW with timber to maintain or construct infrastructure (such as stockyards, fences, causeways and bridges) located on land within the Brigalow-Nandewar Region,
- (b) the felling of trees for the purpose of training (for example, in the proper and safe use of chainsaws or harvesting machinery),
- (c) the clearing of vegetation (including trees) for the purpose of maintaining access to infrastructure or for a purpose related to the safe operation or maintenance of that infrastructure,
- (d) road, fire trail or bush track maintenance,
- (e) clearing of vegetation (including trees) to establish inventory plots or research plots (for the purposes of forest science) and the felling or other removal of trees in those plots, once established, in connection with the objectives of the research,
- (f) the clearing of vegetation (including trees) for the purpose of conducting a cadastral survey.

11. References to a compartment or other tract of land

- (1) A reference to a compartment or other tract of land in which a forestry operation is undertaken or proposed to be undertaken (however expressed) is a reference to the area of land within which the forestry operation is or is to be carried out and, accordingly, may be a reference to a part of a compartment only or to more than one compartment.
- (2) If there is a site specific operational plan for a forestry operation, a reference to the compartment or other tract of land in which the operation is undertaken includes a reference to the area of land shown or identified on the operational map for the forestry operation as the area for which the operation has been planned.

Note: The compartment or other tract of land in the case of road construction may be no more than the footprint of the proposed road.

12. References to certain areas within a compartment or other tract of land

- (1) In this approval, a reference to the **net mapped operation area** of a compartment or other tract of land, in connection with a forestry operation, is a reference to those parts of the compartment or other tract identified in the site specific operational plan (including the operational map) for the forestry operation, at the time of its preparation, as areas in which the operation may be carried out.

Accordingly, the **net mapped operation area** does not include any area (such as an environmentally significant area as described in Chapter 3) in which the operation is prohibited or restricted and that is shown on the operational map.

- (2) In this approval, a reference to the **net operational area** of a compartment or other tract of land is a reference to those parts of the compartment or tract in which the operation may be carried out.

Accordingly, the **net operational area** does not include any area that, either at the time of preparation of the site specific operational plan for the operation or at any subsequent time (such as following a survey under Division 2 of Part 3.3 or when the operation is taking place), is identified as an area in which the operation is prohibited or restricted, such as a species protection zone under Chapter 3.

- (3) If more than one kind of forestry operation to which this approval applies is (or is proposed to be) carried out in a compartment or other tract of land at the same time, a reference to the net mapped operation area or the net operational area must be read as a reference to the net mapped operation area or net operational area (as the case may be) for each kind of operation occurring in the compartment or other tract of land.

13. Determination as to whether tree accidentally felled into an area

- (1) For the purposes of this approval, a tree is accidentally felled into an area if it is apparent that:
- (a) techniques of directional felling were used in an attempt to fell the tree away from the area, or
 - (b) an attempt was made using some other method (such as use of a mechanical harvester) to fell the tree away from the area.
- (2) However, a tree is not accidentally felled into an area if the person responsible for the felling of the tree knew, or could reasonably have been expected to know, that the tree would fall into the area.
- (3) In this clause, "directional felling" means the felling of a tree at a particular angle so that it falls in a pre-determined direction.

14. Most restrictive requirement to be complied with

- (1) If, in a particular set of circumstances:
- (a) more than one requirement applies to the carrying out of forestry operations, and
 - (b) by complying with the most restrictive of those requirements, all of the requirements will be satisfied,
- then the most restrictive of the requirements must be complied with.
- (2) In particular, where an area of land to which this approval applies can be characterised or identified for the purposes of this approval in more than one way (such as being both an area of heath and a species protection zone) and:
- (a) a term of this approval allows the doing of a thing in the area characterised or identified in one way, but
 - (b) another term of this approval prohibits the doing of that thing in the area characterised or identified in another way,

then the doing of that thing is prohibited in the area.

- (3) For the purposes of this clause, a reference to a term of this approval includes a reference to a term of a licence set out in this approval, and a requirement is a requirement imposed by a term of this approval or a document with which this approval requires compliance.

15. Conflict between documents

- (1) If there is an inconsistency between any term of this approval and any other document with which this approval requires compliance, the terms of this approval prevail to the extent of the inconsistency.
- (2) If Forests NSW is aware of the inconsistency, Forests NSW is to advise DECCW accordingly.
- (3) For the purposes of this clause, there is an inconsistency between a term of this approval and any other document if it is not possible to comply with both the term and the other document.

16. Requirements of approval subject to occupational health and safety laws

The requirements of this approval are subject to duties imposed by or under the Occupational Health and Safety Act 2000 or similar laws (including Forests NSW Safety Standards). Accordingly, this approval is not breached merely because of any thing done (or not done) in complying with any such duty.

17. References to agencies

- (1) A requirement of this approval to forward or give a document or other thing to DII (Fisheries) may be satisfied by forwarding or giving the document or other thing to a senior officer of DII (Fisheries), such as the Director, Fisheries Conservation and Aquaculture Branch, Department of Industry and Investment.
- (2) A requirement of this approval to forward or give a document or other thing to DECCW may be satisfied by forwarding or giving the document or other thing to a senior officer of DECCW or an authorised officer of the EPA (within the meaning of the Protection of the Environment Operations Act 1997) (as the case may require).
- (3) If a provision of this approval (including the terms of a licence set out in this approval) prohibits or restricts the doing of any thing without the approval or authorisation of DECCW (however expressed), DECCW is taken to have given such an approval or authorisation if the Director-General of the Department of Environment, Climate Change and Water, or a member of staff nominated by the Director-General for the purpose, has given the approval or authorisation.
- (4) A reference in this clause to a senior officer of DII (Fisheries) or DECCW includes a reference to any member of staff nominated by the Director-General of the Department of Industry and Investment or the Director-General of the Department of Environment, Climate Change and Water (as the case may be) for the purposes of this clause.

18. Requirements to provide information or create and keep records etc.

- (1) A requirement of this approval to provide information (including in writing), to give or forward a document (such as a plan) or to create or keep a record or register (however described) may be satisfied by providing the information, forwarding the document or creating or keeping the record or register in electronic form.

- (2) If a document is required to be signed by a member of staff of Forests NSW (such as an authorisation for the purposes of an operation in an environmentally significant area), then another method is to be used to indicate the member of staff's endorsement of the contents of the document when forwarding it in electronic form.
- (3) Forests NSW may rely on an approval of DECCW given to it in electronic form for the purposes of any provision that prohibits the doing of any thing without DECCW's written approval (however expressed).

19. Obligations imposed on Forests NSW by approval

A requirement imposed on Forests NSW by this approval (including the terms of each licence set out in this approval) to do or not to do anything or ensure that something is or is not done (or ensure that a certain state of affairs exists or does not exist), in relation to a forestry operation, only applies to the extent that the forestry operation is carried out by or on behalf of Forests NSW or is authorised by Forests NSW.

20. Requirement to specify grid co-ordinates of location

A requirement of this approval to specify the grid co-ordinates of the location of any feature or other thing includes a requirement to specify the co-ordinates system used (such as Australian Map Grid 1966 or 1984 ("AMG 66" and "AMG 84") and Map Grid of Australia 1994 ("MGA 94")).

Division 3 – Savings and transitional provisions

21. Interpretation of Division

For the purposes of this Division:

- (a) a reference to the continued licences is a reference to those licences granted to Forests NSW (Forestry Commission) under Part 6 of the *Threatened Species Conservation Act 1995* in relation to the Brigalow-Nandewar Region (as they were last varied by the Director-General of the Department of Environment, Climate Change and Water), being licences referred to in clause 3 of Schedule 7 to the *Threatened Species Conservation Act 1995*, and
- (b) a reference to a forestry operation the planning of which has already begun is a reference to a forestry operation proposed for a compartment or other tract of land in relation to which data has been compiled in accordance with the requirements of condition 8.5 of the continued licences before the commencement of this approval (whether or not other preparation has also taken place).

22. Planning in accordance with continued licences taken to comply with this approval

- (1) Any compilation of data for a compartment or other tract of land in accordance with condition 8.5 of the continued licences (in preparation for a forestry operation in that compartment or other tract) before the commencement of this approval is taken to comply with the requirements of Division 2 of Part 3.2.
- (2) A traverse survey for a compartment or other tract of land that is carried out in accordance with condition 8.7 of the continued licences (in preparation for a forestry operation in that compartment or other tract) before the commencement of this approval is taken to comply with the requirements of Division 3 of Part 3.2.

- (3) Nothing in this clause authorises Forests NSW to rely on a compilation of data or a traverse survey for a compartment or other tract of land that is carried out more than 5 years before the commencement of the forestry operation concerned.

23. Forestry operation may proceed under continued licences or this approval

- (1) The planning, and other preparation, for a forestry operation the planning of which has already began may continue in accordance with the continued licences, rather than this approval.
- (2) The forestry operation may be carried out in accordance with the continued licences, rather than this approval. However, in that case, Forests NSW must ensure that their guidelines entitled “Inland Soil Erosion and Mitigation Guidelines”, as current at the time of commencement of this approval, are also given effect to in carrying out the operation.
- (3) If the forestry operation is not completed within 3 months of the commencement of this approval, it may be continued only in accordance with the conditions of this approval (other than any requirements of this approval that must be met before the commencement of an operation in a compartment or other tract of land).

24. Forestry operations already commenced not affected by approval

- (1) The conditions of this approval (other than this Part) do not apply to, or in relation to, the carrying out of any forestry operation that has already commenced in a compartment or other tract of land on the commencement of this approval.
- (2) However, any such operation, if continued, must be carried out in accordance with the continued licences. Forests NSW must also ensure that their guidelines entitled “Inland Soil Erosion and Mitigation Guidelines”, as current at the time of commencement of this approval, are given effect to in carrying out the operation.

25. Existing permit holders not affected

The conditions of this approval (other than this Part) do not apply to, or in relation to, the carrying out of any forestry operation in accordance with an authorisation under section 301, or a permit or forest lease issued under Part 4, of the Forestry Act 1916 that is in force on the commencement of this approval.

26. Soil assessments in first 3 months

An assessment of the nature and characteristics of soil regolith and an assessment of the dispersibility of soils may be carried out by a person other than an approved soil assessor for the purposes of Schedule 9 or clause 299 (as the case may require) during the three month period following the commencement of this approval, if it is impracticable for any such assessment to be carried out by an approved soil assessor.

PART 1.2 – GENERAL TERMS APPLYING TO FORESTRY OPERATIONS

Division 1 – Terms applying generally to all forestry operations

27. Best Practice

- (1) In carrying out, or authorising the carrying out of, forestry operations, Forests NSW must give effect to the principles of best practice that apply to the operations concerned.
- (2) In this clause, “best practice” means the management of a forestry operation to achieve the ongoing minimisation of any adverse impacts of the forestry operation on the environment.

28. Forest Management Zoning System

- (1) In carrying out, or authorising the carrying out of, forestry operations in State forests, Forests NSW must give effect to the document entitled, “Forest Management Zoning in State Forests” (State Forests of New South Wales, December 1999).
- (2) To the extent of any inconsistency between this approval and the document referred to in subclause (1), this approval prevails.
- (3) Part 3.7 applies to any area of land classified as Forest Management Zone 2 or 3A (that is not also an environmentally significant area within the meaning of this approval) as if such an area were a Zone 3A ESA. Accordingly, a reference to an environmentally significant area (where including a Zone 3A ESA) in Part 3.7 is taken to include a reference to any area of land classified as Forest Management Zone 2 or 3A for this purpose.
- (4) However, the provisions of Part 3.7 as applied to any area of land classified as Forest Management Zone 2 or 3A by this clause are not terms of the licence under the Threatened Species Conservation Act 1995 included in this approval.
- (5) To avoid doubt, if a dam or tank, or its surrounding protection zone (as described in clause 244 (1) (g)) also lies (wholly or partially) within an area of land classified as Forest Management Zone 2 or 3A, then harvesting machinery (and any other machinery) may enter and be used within the area for the purpose of carrying out maintenance work on the dam or tank in accordance with clause 295.
- (6) Forests NSW is to manage any area of land classified as Forest Management Zone 3B with the objective of achieving the desirable outcomes for the area identified in its document entitled “Management for Nature Conservation – Western Region 2008”, as forwarded to DECCW on 14 October 2008.

29. Threatened Species Conservation Act 1995 - proposed new listings

- (1) Forests NSW must, as far as is practicable, minimise or mitigate any adverse effect of forestry operations on animals or plants of a proposed threatened species, population or ecological community in respect of which DECCW has given Forests NSW a written notice containing the information set out in subclause (5).
- (2) In deciding how to minimise or mitigate any adverse effect of operations on the animals or plants of the species, population or ecological community concerned, Forests NSW is to be guided by any written advice provided to it by DECCW.
- (3) The requirements of this clause continue to apply until one of the following occurs:
 - (a) Forests NSW receives a written notice from DECCW to the effect that it no longer need comply with the requirements,

- (b) this approval is amended to make specific provision in relation to the species, population or ecological community concerned or one or both of the Ministers make a decision not to amend this approval for that purpose (being a decision of which there is a written record),
 - (c) the Scientific Committee makes a final determination not to insert the species, population or ecological community in Schedule 1, 1A or 2 to the Threatened Species Conservation Act 1995,
 - (d) a period of 12 months elapses since the date of the notice given to Forests NSW by DECCW referred to in subclause (1).
- (4) For the purposes of this clause, a species, population or ecological community is a proposed threatened species, population or ecological community only if the species, population or ecological community is not already listed in a schedule to the Threatened Species Conservation Act 1995 and:
- (a) the Minister administering the Threatened Species Conservation Act 1995 or the Natural Resources Commission has requested the Scientific Committee to consider a proposal to insert the species, population or ecological community in Schedule 1, 1A or 2 to the Threatened Species Conservation Act 1995, or
 - (b) the Director-General of the Department of Environment, Climate Change and Water has nominated the species, population or ecological community for insertion in Schedule 1, 1A or 2 to the Threatened Species Conservation Act 1995, or
 - (c) the Scientific Committee has initiated for consideration a proposal to insert the species, population or ecological community in Schedule 1, 1A or 2 to the Threatened Species Conservation Act 1995, or
 - (d) the Scientific Committee has made a preliminary determination that a proposal to insert the species, population or ecological community in Schedule 1, 1A or 2 to the Threatened Species Conservation Act 1995 should be supported.
- (5) The notice for the purposes of subclause (1) is a notice setting out the following information:
- (a) the species, population or ecological community named in the notice is a proposed threatened species, population or ecological community (and the basis for it being so),
 - (b) there is evidence that the species, population or ecological community is likely to be present in the Brigalow-Nandewar Region,
 - (c) there is evidence that the carrying out of forestry operations is likely to have an adverse effect on the species, population or ecological community.

The notice is to include summaries of the evidence referred to in paragraphs (b) and (c).

- (6) Despite subclause (4), this clause does not apply to an ecological community in respect of which a proposal or nomination is made for its insertion in Schedule 2 to the Threatened Species Conservation Act 1995 as a vulnerable ecological community.
- (7) In this clause:

“adverse impact”, in relation to animals or plants of a species, includes harm to animals of the species, or the picking of plants of the species, and damage to any habitat of animals or plants of the species; and

“animal”, “ecological community”, “habitat”, “harm”, “Natural Resources Commission”, “picking”, “plant”, “population”, “Scientific Committee” and “species” have the same meanings as in the Threatened Species Conservation Act 1995.

30. Threatened Species Conservation Act 1995 - proposed listing of critical habitat

- (1) Forests NSW must, as far as is practicable, minimise or mitigate any adverse effect of forestry operations on proposed critical habitat in the Brigalow-Nandewar Region.
- (2) Subclause (1) ceases to apply when one of the following occurs:
 - (a) the Minister refuses or approves the recommendation of the Director-General of the Department of Environment, Climate Change and Water for identification of the area as critical habitat under Division 1 of Part 3 of the Threatened Species Conservation Act 1995,
 - (b) 6 months have passed since the date specified in the notice referred to in subclause (3) as the date by which submissions about the recommendation must be made.

Note: the authority conferred by clause 6 does not extend to operations likely to result in damage to critical habitat.

- (3) For the purposes of this clause, an area of land is proposed critical habitat if a notice of a recommendation by the Director-General of the Department of Environment, Climate Change and Water for identification of the area as critical habitat of an endangered species, population or ecological community or critically endangered species or ecological community has been published in accordance with section 41 of the Threatened Species Conservation Act 1995.

31. Threatened Species Conservation Act 1995 - listing as critically endangered

- (1) If an endangered or vulnerable species, or endangered ecological community, that is present in the Brigalow-Nandewar Region becomes critically endangered, Forests NSW is, at the request of DECCW, to participate in a review of this approval as it applies to, or provides measures for the protection of, the species or ecological community concerned.
- (2) In this clause:
 - (a) the review referred to is a review that has regard to the Scientific Committee’s opinion that the species or community is facing an extremely high risk of extinction in New South Wales in the immediate future, and
 - (b) the terms, “critically endangered”, “endangered ecological community” and “endangered or vulnerable species”, have the same meanings as in the Threatened Species Conservation Act 1995.

32. Forests NSW to notify DECCW of its discovery of new evidence of plant and animal species

- (1) Forests NSW must notify DECCW of any new evidence that it finds, during the term of this approval, concerning the presence of a species of plant or animal in the Brigalow-Nandewar Region, being evidence that:
 - (a) a species of plant or animal not previously known to be present in the Brigalow-Nandewar Region is present in the Region, or

- (b) the range of a species of plant or animal in the Brigalow-Nandewar Region has significantly expanded in the Region, or
 - (c) a species of plant or animal that has not been recorded in the Brigalow-Nandewar Region within the previous 10 years is present in the Region.
- (2) In this clause, “animal”, “plant” and “species” have the same meanings as in the *Threatened Species Conservation Act 1995*.

Division 2 - General restrictions on logging operations

33. Prohibition on logging trees of hardwood species solely for firewood

- (1) Living trees must not be felled in a logging operation solely for the purpose of producing firewood, but no other timber product.
- (2) If a living tree is felled in a logging operation, Forests NSW may make its timber available for firewood only if the timber concerned is residue timber (that is, the timber remaining after a log or logs have been cut and removed from the tree).
- (3) To avoid doubt, subclause (2) does not apply to:
 - (a) the collection of timber for firewood from the floor of the forest in accordance with an authorisation under section 30I of the *Forestry Act 1916*, and
 - (b) trees that are felled for the primary purpose of ancillary road construction.
- (4) Despite subclauses (1) and (2), bull oak and white cypress trees may be felled in a logging operation solely for the purpose of producing firewood.

34. Prohibition on logging certain hardwood species

Timber from the following species may not be harvested in logging operations in the Brigalow-Nandewar Region:

- (a) ironbark species, other than western ironbark (that is, *Eucalyptus crebra*, *Eucalyptus fibrosa* and *Eucalyptus nubila*),
- (b) any species belonging to the *Angophora* genus.

35. Categorisation of timber

- (1) Forests NSW must ensure, in connection with the sale or other disposal of timber by it from the Brigalow-Nandewar Region, that the timber contained in trees felled in a logging operation is sold or made available for a product or products that reflect the quality of that timber.
- (2) In particular, if a tree that is felled potentially contains a log or logs that will meet the specifications for a high quality product (such as a sawlog), then it is to be cut into, and sold as, such a log or logs, rather than a log or logs (or other timber product) that meet specifications that timber of a poorer quality could also meet.
- (3) Despite subclause (2), if defects in a tree’s timber become apparent, on cutting the tree into a log or logs, then the tree may be made available instead for logs or products for which timber of that poorer quality may be utilized.

36. Sale of timber for conversion into charcoal or insultimber prohibited

- (1) Forests NSW may not sell, or otherwise make available, timber for the express purpose of its conversion into charcoal:
 - (a) for use in a manufacturing process (whether as a component or constituent of a product (such as silicon) or otherwise), or
 - (b) as the intended product of a manufacturing process (rather than a by-product), or
 - (c) for use in the commercial generation of electricity.
- (2) Forests NSW may not sell, or otherwise make available, timber from western ironbark trees for the express purpose of producing insul timber, that is, sawn fence droppers for use in electric fences.

37. Sustainable yield study for hardwood species

- (1) Forests NSW is to conduct (over the first five years of the term of this approval) a study of the sustainable yield for logs and other timber products from Tableland hardwood and Western hardwood species (other than western ironbark trees) in the Brigalow-Nandewar Region for the remainder of the term of this approval.

Note: The study required under this clause in relation to Tableland and Western hardwood species effectively relates to species belonging to the genera Eucalyptus (other than the western ironbark species) and Corymbia, as the logging of other hardwood species (such as those belonging to the genus Angophora) is prohibited. (Bull oak and white cypress trees are not treated as hardwood species for the purposes of the approval.)

- (2) The procedures and techniques used to collect data, such as methods of measurement and sampling, for the purpose of compiling an inventory of the hardwood resource and for other purposes of the study, are to be at least as reliable as those used as part of the Forest Resource and Management Evaluation System ("FRAMES"), being the tool developed in the comprehensive regional assessments of forests undertaken in New South Wales prior to the State and Commonwealth Governments entering Regional Forests Agreements.
- (3) The computational tools or software programs used in the study, including inventory tools, biometric models, yield simulation models and yield scheduling tools, are to be of the same or a higher standard of reliability as those developed as part of FRAMES to predict sustainable yields as a basis for the Regional Forest Agreements between the State and Commonwealth Governments.

Note: A description of the projects in which inventory tools, biometric models, yield simulation models and yield scheduling tools were developed as modules of FRAMES (for the purposes of the NSW Comprehensive Regional Assessments) can be found in the various reports of those projects published jointly by the Commonwealth and NSW Governments.

- (4) Forests NSW is to consult DECCW when developing the methodology (including the procedures and techniques, and the computational tools and software programs, referred to in subclauses (2) and (3) respectively) to be adopted for the study and take into account any written advice it receives from DECCW (within a reasonable time) in finalising the methodology.
- (5) Forests NSW is to prepare, and forward to DECCW, a report of its sustainable yield study as soon as practicable after the completion of the study. In preparing the report, Forests NSW is to consult DECCW on the interpretation and analysis of the results of its study and take into account any written advice it receives from DECCW in this regard.

Note: The Ministers responsible for granting the approval intend to review the application of the approval to logging operations to harvest hardwood species in light of the results of the sustainable yield study undertaken under this clause. The quantities of logs and other timber products in the description of logging operations in clause 5 (being logging operations authorised by the approval) may be adjusted as a consequence. In any case, clause 38 imposes an additional limit on the quantity of logs and other timber products that may be harvested from hardwood species following the study.

38. Logging of hardwood species following sustainable yield study

- (1) This clause has effect from the first financial year following the completion of the sustainable yield study carried out for the purpose of clause 37, including the finalisation of the report of the study. A reference in this clause to the sustainable yield of timber products from Western hardwood and Tableland hardwood species is a reference to the predicted sustainable yield of those products as recorded in that report.
- (2) Forests NSW may not, in any financial year, carry out, or authorise the carrying out of, logging operations to harvest timber from Western hardwood or Tableland hardwood species (other than western ironbark) within the Brigalow-Nandewar Region if the quantity of timber products reasonably expected to be produced by those operations would result in the cumulative sustainable yield of timber products for the relevant period being exceeded by more than an amount equal to 10% of the sustainable yield of timber products expressed as an annual amount.
- (3) In subclause (2), a reference, in connection with a financial year, to the cumulative sustainable yield for the relevant period is a reference to the sustainable yield, expressed as an annual amount, multiplied by the number of financial years since this clause took effect, including the financial year concerned.

39. Silvicultural considerations for hardwood species

- (1) In planning and carrying out logging operations in the Brigalow-Nandewar Region, Forests NSW is to have regard to the guidelines entitled "Silvicultural Guidelines for Harvesting in Brigalow-Nandewar Bioregion", prepared by Forests NSW and dated August 2008.
- (2) Consistently with those guidelines, Forests NSW is to ensure that:
 - (a) at the completion of any logging operation in which trees of Tableland hardwood species are felled, the average basal area of trees (of all species) remaining in any stand of trees of Tableland hardwood species (within the net operational area) that has been thinned in the operation is approximately 10 m² per hectare of the stand or more, and
 - (b) at the completion of any logging operation in which trees of Western hardwood species are felled, the average basal area of trees (of all species) remaining in any stand of trees of Western hardwood species (within the net operational area) that has been thinned in the operation is approximately 8 m² per hectare of the stand or more.
- (3) The basal area of trees that must not be felled under, or are retained for the purposes of, Part 3. 4 (or retained for the purposes of clause 40) may be included in the calculation of the average basal area per hectare of trees remaining in a stand, for the purposes of this clause. The basal area of trees that are left in a stand because they are not merchantable may also be included in the calculation.

- (4) This clause does not apply to any salvage logging operation following a wildfire carried out in accordance with Division 3 of Part 3.4. (The silvicultural guidelines referred to in subclause (1) do not apply to such an operation.)
- (5) In this clause:
 - (a) a reference to Western hardwood species includes a reference to western ironbark trees, and
 - (b) a reference to a stand of trees of Western hardwood species is a reference to a stand of trees at least 50% of which are trees of Western hardwood species.

40. Retention of trees of Western hardwood species or Tableland hardwood species

- (1) This clause applies to any logging operation in which trees of Western hardwood or Tableland hardwood species (other than western ironbark trees) are felled and for which a site specific operational plan is required. Accordingly, a reference in this clause to a tree is a reference only to a tree of a Western hardwood or Tableland hardwood species (other than a western ironbark tree).
- (2) Forests NSW must ensure that, at the completion of any logging operation to which this clause applies, there remains, in that part of each hectare within the net mapped operation area that surrounds the stump of any tree felled in the operation, at least 50% of the trees of the same species as the felled tree, being 50% of those trees that were present in that part of the hectare before the commencement of the logging operation.
- (3) Only living trees may be counted for the purposes of subclause (2). The trees retained must be selected from the cohort or cohorts of trees that have the largest diameters at breast height over bark (being cohorts of trees of the same species as the tree felled and located, wholly or partially, within that part of the hectare surrounding the felled tree in the net mapped operation area).
- (4) Subclause (2) is not breached merely because there is less than 50% of the trees of the species concerned remaining in the relevant part of a particular hectare of land surrounding a stump of a felled tree if the average percentage of trees of that species remaining in each part of a hectare within the net mapped operation area that surrounds a stump of a felled tree of that species is 50% or more.
- (5) Any tree of the relevant species that must not be felled under, or is retained for the purposes of, Part 3.4 (or retained in accordance with the silvicultural guidelines referred to in clause 39, as given effect to by that clause) may be counted or treated as a tree retained for the purposes of this clause if it meets the criteria for selection set out in subclause (3). Trees that are not merchantable may also be counted in calculating the percentage of trees remaining in a part of a hectare.
- (6) Timber may not be harvested from any trees that are retained for the purposes of a logging operation to which this clause applies in a subsequent logging operation (during the term of this approval).
- (7) Nothing in this clause requires trees to be selected for felling or retention across the whole of the net mapped operation area in which the logging operation is to be undertaken before the operation is commenced. Accordingly, trees may be selected for retention in relation to each tree that is or is proposed to be felled, as the operation progresses through the net mapped operation area.

- (8) In this clause, a reference to a hectare of land surrounding the stump of a tree is a reference to the circular area of land centred on the stump of 10, 000 square metres.

41. Travelling stock reserves

- (1) When deciding whether to carry out, or authorise the carrying out of, a logging operation in which timber on a travelling stock reserve (within the meaning of the *Rural Lands Protection Act 1998*) that is Crown-timber land is to be cut and removed, Forests NSW must assess or determine the following matters:
- (a) the significance of the travelling stock reserve in providing habitat connectivity or a habitat corridor for individuals of a threatened species, population or ecological community (or protected fauna) and whether the proposed logging on the stock reserve will have any adverse impact on the reserve's role in providing habitat connectivity or as a habitat corridor,
 - (b) whether there are any records of a threatened species or endangered population in the area within the travelling stock reserve affected by the proposed logging operation,
 - (c) whether the surrounding land provides (and foreseeably will continue to provide) similar habitat for plants and animals (within the meaning of the *Threatened Species Conservation Act 1995*) as the area within the travelling stock reserve affected by the proposed logging operation,
 - (d) having regard to its assessment of the matters referred to in paragraphs (a), (b) and (c), the conservation value of the area within the travelling stock reserve that is proposed to be logged,
 - (e) the area of the travelling stock reserve in which it is proposed to log compared with the length of its outer boundary.
- (2) Forests NSW must take into account the matters it has assessed under subclause (1) when determining whether to carry out or authorise the carrying out of the proposed logging operation concerned in the area within the travelling stock reserve. Factors against an operation proceeding include that the area has a high conservation value and that the area is an isolated patch of forest habitat of its type, with a low boundary to area ratio.
- (3) Forests NSW must not carry out, or authorise the carrying out of, a logging operation in any forested area within the travelling stock reserve that it identifies as having a high conservation value (under subclause (1) or otherwise) unless the logging operation will maintain or improve the environmental attributes that contribute to the high conservation value of the area.
- (4) Forests NSW is to prepare a plan for managing logging operations on travelling stock reserves in the Brigalow-Nandewar Region within 12 months of the commencement of this approval. The plan is to include measures, in relation to each forested area within a travelling stock reserve that Forests NSW identifies as having high conservation value (under subclause (1) or otherwise), for ensuring that the environmental attributes that contribute to the high conservation value of the area are maintained or improved.
- (5) In preparing the plan for managing logging operations on travelling stock reserves, Forests NSW is to consult and take into account the written comments of any livestock health and pest authority constituted by the *Rural Lands Protection Act 1998* and having the care, control and management of a travelling stock reserve (or part of such a reserve) within the Brigalow-Nandewar Region.

- (6) Forests NSW may not carry out, or authorise the carrying out of, any logging operations on land within a travelling stock reserve until it has forwarded its draft plan for managing those operations to DECCW and considered any written comments DECCW may provide regarding the contents of the plan within two months of receiving it.
- (7) Forests NSW may review and amend its plan for managing logging operations on travelling stock reserves at any time. However, it is to consult and take into account any written comments of affected livestock health and pest authorities and DECCW (if provided to it within a reasonable time) before giving effect to an amendment.
- (8) Forests NSW is to give effect to its plan for managing logging operations on travelling stock reserves, as current from time to time.
- (9) Nothing in this clause affects the rights or obligations of a livestock health and pest authority constituted by the Rural Lands Protection Act 1998 with respect to a travelling stock reserve or the operation of section 89 of that Act.

Division 3 – General requirements relating to forest products operations

42. Ecological viability of species from which forest products taken

Forests NSW must ensure that the scale and intensity of forest products operations that it carries out or authorises in any part of the Brigalow-Nandewar Region does not harm the sustained ecological viability of the relevant species of tree, shrub or other vegetation within the part.

Division 4 – General requirements relating to on-going forest management operations

43. Replanting trees

- (1) Forests NSW must ensure that any trees planted for the purpose of regenerating the overstorey following the carrying out of logging operations are of the same species as those in the overstorey before those operations were carried out. In so far as it is practicable to do so, the seeds or seedlings chosen are to be of the same provenance as the trees removed in the logging operations.
- (2) Forests NSW must ensure that the relative proportions of different species of trees present following planting are similar to the relative proportions of those species present before logging operations were carried out.

44. Assessment of regeneration in silvicultural management

- (1) Forests NSW must assess the extent and nature of regeneration in areas of land within the Brigalow-Nandewar Region that are logged during the term of this approval. Assessments must be carried out on a regular and periodic basis.
- (2) The first such assessment is to be completed by the end of 2013.
- (3) Before carrying out the first assessment, Forests NSW must consult DECCW regarding the nature, collection (including timing) and analysis of data on which assessments of regeneration under this clause are to be based.

45. Pest animal management - plan for Brigalow-Nandewar Region

- (1) Forests NSW must ensure that it has, at all times while this approval is in force, a plan or plans for the control of pest animals within State forests in the Brigalow-Nandewar Region that comply with the requirements of this clause (“pest animal management plan”).
- (2) A pest animal management plan must specify the following:
 - (a) the objectives sought to be achieved in relation to the control of pest animals, during or by the end of the term of the plan, and the strategies to be adopted to achieve those objectives,
 - (b) the species of pest animal that are to be targeted for control, their known or likely locations within State forests in the Brigalow-Nandewar Region, and the control methods that may be used for each species,
 - (c) the environmental impacts of each species of pest animal targeted for control and of the control methods, and how it is proposed to limit any adverse environmental impacts (of both the pest animals and control methods),
 - (d) procedures for setting priorities for control activities under the plan.
- (3) A requirement to specify a matter in subclause (2) (b) or (c) may be met by applying or adopting provisions of another document (such as Forests NSW’s Chemicals Manual), including by way of reference.
- (4) A pest animal management plan must provide for the following:
 - (a) monitoring the distribution of pest animals within State forests in the Brigalow-Nandewar Region,
 - (b) assessing the extent to which the objectives of the plan are achieved and the effectiveness of the strategies implemented under the plan to achieve them,
 - (c) monitoring the implementation and effectiveness of methods, measures and procedures referred to in subclause (2) (b), (c) and (d),
 - (d) reporting on the results of monitoring and assessment undertaken in accordance with the plan.
- (5) A pest animal management plan may include matters in addition to those referred to in subclauses (2) and (4). A plan may apply to State forests within a region or part of the State that includes, but is not limited to, the Brigalow-Nandewar Region.
- (6) The document entitled “Pest Animal Management Plan 2006 Western Region NFOB”, as prepared by Forests NSW in April 2006 and approved by the Director Native Forest Operations for implementation, is taken to be a pest animal management plan that complies with the requirements of this clause.

(7) In this clause:

“animal” means any animal of an invertebrate or vertebrate species, whether native or introduced, and

“pest animals” means pest animals that have an adverse environmental or economic impact in the Brigalow-Nandewar Region or surrounding agricultural land.

46. Pest animal management plan – review and amendment

- (1) Forests NSW must review the pest animal management plan applying to State forests within the Brigalow-Nandewar Region, regularly and periodically (and at least every 5

years from the date of its approval for implementation). Accordingly, the Pest Animal Management Plan 2006 Western Region NFOB (referred to in clause 45) must be reviewed by 30 June 2011.

- (2) The review is to be conducted in light of the results of monitoring and assessment carried out under the plan (as referred to in clause 45 (4)) and, to the extent that they are available to Forests NSW, the following:
 - (a) any new information concerning the presence or distribution of pest animals within State forests in the Brigalow-Nandewar Region and their environmental or economic impacts,
 - (b) any developments in methods for controlling pest animals and any new information concerning existing methods adopted under the plan,
 - (c) any new information relating to measures to limit the adverse environmental impacts of pest animals and of the methods for controlling pest animals,
 - (d) any relevant plan or strategy published by the Commonwealth or NSW Government for the control of pest animals (such as a threat abatement plan), if the plan or strategy is current at the time of the review.
- (3) Forests NSW may amend its pest animal management plan, or prepare a new pest animal management plan, following a review or at any time.

47. Pest animal management plan - Forests NSW to give effect to plan

Forests NSW is to give effect to its pest animal management plan, as current from time to time. However, to the extent of any inconsistency between this approval and a plan, this approval prevails.

48. Weed management - plan for the Brigalow-Nandewar Region

- (1) Forests NSW must ensure that it has, at all times while this approval is in force, a plan or plans for the control of weeds within State forests in the Brigalow-Nandewar Region that comply with the requirements of this clause ("weed management plan").
- (2) A weed management plan must specify the following:
 - (a) the objectives sought to be achieved in relation to the control of weeds, during or by the end of the term of the plan, and the strategies to be adopted to achieve those objectives,
 - (b) the species of weed that are to be targeted for control, their known or likely locations within State forests in the Brigalow-Nandewar Region, and the control methods that may be used for each species,
 - (c) the environmental impacts of each species of weed targeted for control and of the control methods, and how it is proposed to limit any adverse environmental impacts (of both the weeds and the control methods),
 - (d) procedures for setting priorities for control activities under the plan.
- (3) A requirement to specify a matter in subclause (2) (b) or (c) may be met by applying or adopting provisions of another document (such as Forests NSW's Chemical Manual), including by way of reference.
- (4) A weed management plan must provide for the following:
 - (a) monitoring the distribution of weed species within State forests in the Brigalow-Nandewar Region,

- (b) assessing the extent to which the objectives of the plan are achieved and the effectiveness of the strategies implemented under the plan to achieve them,
 - (c) monitoring the implementation and effectiveness of methods, measures and procedures referred to in subclause (2) (b), (c) and (d),
 - (d) reporting on the results of monitoring and assessment undertaken in accordance with the plan.
- (5) A weed management plan may include matters in addition to those referred to in subclauses (2) and (4). A plan may apply to State forests within a region or part of the State that includes, but is not limited to, the Brigalow-Nandewar Region.
- (6) The document entitled “Weed Management Plan 2006 Western Region NFOB”, as prepared by Forests NSW in April 2006 and as approved for implementation by the Director Native Forest Operations of Forests NSW, is taken to be a weed management plan that complies with the requirements of this clause.
- (7) A reference in this clause to weeds is a reference to noxious weeds (within the meaning of the Noxious Weeds Act 1993) and to any other weed that has an adverse impact on the environment within the Brigalow-Nandewar Region.

49. Weed management plan – review and amendment

- (1) Forests NSW must review the weed management plan applying to State forests within the Brigalow-Nandewar Region, regularly and periodically (and at least every 5 years from its approval for implementation). Accordingly, the Weed Management Plan 2006 Western Region NFOB (referred to in clause 48) must be reviewed by 30 June 2011.
- (2) The review is to be conducted in light of the results of monitoring and assessment carried out under the plan (as referred to in clause 48) and, to the extent that they are available to Forests NSW, the following:
- (a) any new information concerning the presence or distribution of weeds within State forests in the Brigalow-Nandewar Region and their environmental or economic impacts,
 - (b) any developments in methods for controlling weeds and any new information concerning existing methods adopted under the plan,
 - (c) any new information relating to measures to limit the adverse environmental impacts of weeds and of the methods of controlling weeds,
 - (d) any relevant plan or strategy published by the Commonwealth or NSW Government for the control of weeds (such as a threat abatement plan), if the plan or strategy is current at the time of the review.
- (3) Forests NSW may amend its weed management plan or prepare a new weed management plan, following a review or at any time.

50. Weed management plan – Forests NSW to give effect to plan

Forests NSW is to give effect to its weed management plan, as current from time to time. However, to the extent of any inconsistency between this approval and a weed management plan, this approval prevails.

51. Grazing management - plan for Brigalow-Nandewar Region

- (1) Forests NSW must ensure that it has, at all times while this approval is in force, a plan or plans that comply with the requirements of this clause for the regulation of grazing

by domestic stock within State forests in the Brigalow-Nandewar Region (“grazing management plan”). An aim of the plan must be to regulate grazing so as to limit its adverse environmental impacts while ensuring its use for bush fire hazard reduction is not compromised.

- (2) A grazing management plan must specify the following:
 - (a) the objectives sought to be achieved in relation to the regulation of grazing, during or by the end of the term of the plan, and the strategies to be adopted to achieve those objectives,
 - (b) the methods that may be used to manage grazing pressure on herbaceous vegetation while reducing bush fire hazard,
 - (c) the environmental impacts of grazing (particularly on ecosystems sensitive to grazing) and how it is proposed to limit any adverse impacts,
 - (d) procedures for selecting areas for the application and removal of grazing, respectively.
- (3) A requirement to specify a matter in subclause (2) (b), (c) and (d) may be met by applying or adopting provisions of another document, including by way of reference.
- (4) A grazing management plan must provide for the following:
 - (a) monitoring the impact of grazing within State forests in the Brigalow-Nandewar Region,
 - (b) assessing the extent to which the objectives set out in the plan are achieved and the effectiveness of strategies implemented under the plan to achieve them,
 - (c) monitoring the implementation and effectiveness of methods, measures and procedures referred to in subclause (2) (b), (c) and (d),
 - (d) reporting on the results of monitoring and assessment undertaken in accordance with the plan.
- (5) A grazing management plan may include matters in addition to those referred to in subclauses (2) and (4). A plan may apply to State forests within a region or part of the State that includes, but is not limited to, the Brigalow-Nandewar Region.
- (6) The document entitled “Grazing Management Plan 2006 Western Region NFOB”, as prepared by Forests NSW in April 2006 and as approved for implementation by the Director Native Forest Operations of Forests NSW, is taken to be a grazing management plan that complies with the requirements of this clause.

Note: As at the commencement of the approval, Forests NSW proposed to revise the 2006 Grazing Management Plan so that its contents reflect the requirements of this clause.

52. Grazing management plan – review and amendment

- (1) Forests NSW must review its grazing management plan applying to State forests within the Brigalow-Nandewar Region, regularly and periodically (and at least every 5 years from the date of its approval for implementation). Accordingly, the Grazing Management Plan 2006 Western Region NFOB (referred to in clause 51) must be reviewed by 30 June 2011.
- (2) The review is to be conducted in light of the results of monitoring and assessment carried out under the plan (as referred to in clause 51 (4)) and, to the extent that they are available to Forests NSW, the following:

- (a) any new information concerning the environmental impacts of grazing, including the use of grazing to encourage the growth of native species of grass,
 - (b) any developments in methods or measures to limit the adverse environmental impacts of grazing,
 - (c) any new information relevant to the management of grazing pressure on herbaceous vegetation.
- (3) Forests NSW may amend its grazing management plan, or prepare a new grazing management plan, following a review or at any time.

53. Grazing management plan - Forests NSW to give effect to plan

Forests NSW is to give effect to its grazing management plan, as current from time to time. However, to the extent of any inconsistency between this approval and the plan, this approval prevails.

54. Burning operations management - plan for the Brigalow-Nandewar Region

- (1) Forests NSW must prepare a plan or plans for the regulation of burning operations within State forests in the Brigalow-Nandewar Region that comply with the requirements of this clause (“burning operations management plan”). An aim of the management plan must be to regulate the carrying out of burning operations so as to limit any adverse environmental impacts of burning while ensuring that its use for bush fire hazard reduction and other silvicultural purposes (including ecological purposes) is not compromised.
- (2) A burning operations management plan must specify the following:
- (a) the objectives sought to be achieved in relation to the regulation of burning operations, during or by the end of the term of the plan, and the strategies to be adopted to achieve those objectives,
 - (b) how burning operations are to be conducted and measures that may be used to limit the risk of wildfire resulting from the operations or generally to contain the extent of burning,
 - (c) the environmental impacts of the fire regimes proposed to be applied to State forests in the Brigalow-Nandewar Region (particularly impacts on ecosystems that are either sensitive to fire or require fire for their maintenance), and how it is proposed to limit any adverse impacts,
 - (d) the measures to be used to ensure that a burning operation for the purpose of bush fire hazard reduction will result in a mosaic of burnt and unburnt patches,
 - (e) procedures for setting priorities in selecting areas for burning operations.
- (3) A requirement to specify a matter referred to in subclause (2) (b), (c), (d) or (e) may be met by applying or adopting provisions of another document (such as the *Bush Fire Environmental Assessment Code for New South Wales* in force under Division 8 of Part 4 of the *Rural Fires Act 1997*), including by way of reference.
- (4) A burning operations management plan must provide for the following:
- (a) monitoring the environmental impact of the fire regimes applied to State forests within the Brigalow-Nandewar Region,
 - (b) assessing the extent to which the objectives of the plan are achieved and the effectiveness of the strategies implemented under the plan to achieve those objectives,

- (c) monitoring the implementation and effectiveness of measures and procedures referred to in subclause (2) (b), (c), (d) and (e),
 - (d) reporting on the results of monitoring and assessment undertaken in accordance with the plan.
- (5) The burning operations management plan must also describe the main aspects of the regulatory and policy framework in which bush fire hazard reduction work and other burning operations are carried out, including any internal procedures or policies of Forests NSW (as set out in its guidelines or corporate plans) and identifying any obligations imposed on Forests NSW under the *Rural Fires Act 1997* in relation to bush fire prevention. The plan is to specify the matters that must be considered in the context of that regulatory and policy framework in deciding whether a burning operation should or is required to be conducted.
- (6) A burning operations management plan may include matters in addition to those referred to in subclauses (2), (4) and (5). A plan may apply to State forests within a region or part of the State that includes, but is not limited to, the Brigalow-Nandewar Region.

55. Burning operations management plan – preparation of first plan

Forests NSW must prepare (and approve for implementation) a burning operations management plan that complies with clause 54 within 12 months of the commencement of this approval. Forests NSW is to invite DECCW and DII (Fisheries) to provide comments on a draft of the plan, and is to take into account any comments made by those agencies (within a reasonable time) in finalising the plan.

56. Burning operations management plan – required for remainder of term of approval

Forests NSW must ensure that it has a burning operations management plan that complies with the requirements of clause 54 at all times following the approval of the first burning operations management plan for implementation.

57. Burning operations management plan – review and amendment

- (1) Forests NSW must review the burning operations management plan applying to State forests within the Brigalow-Nandewar Region, regularly and periodically (and at least every 5 years from the date of its approval for implementation).
- (2) The review is to be conducted in light of the results of monitoring and assessment undertaken under the plan (as referred to in clause 54), and, to the extent that they are available to Forests NSW, the following:
- (a) any new measures that can be taken to limit the risk of wildfire occurring as a result of burning operations or generally to contain the extent of burning,
 - (b) any new information concerning the environmental impacts of the fire regimes that have been applied to State forests in the Brigalow-Nandewar Region or relevant to limiting the adverse environmental impacts of burning operations,
 - (c) any other new information that may be relevant to the matters referred to in clause 54 (2) (d) or (e).
- (3) Forests NSW may amend its burning operations management plan, or prepare a new burning operations management plan, following a review or at any time.

58. Burning operations management plan – Forests NSW to give effect to plan

Forests NSW is to give effect to its burning operations management plan, as current from time to time. However, to the extent of any inconsistency between this approval and the plan, this approval prevails. To avoid doubt, nothing in this approval or a burning operations management plan affects the obligations of Forests NSW under the Rural Fires Act 1997.

Division 5 – General requirements relating to ancillary road construction

59. Road and fire trail management – plan for Brigalow-Nandewar Region

- (1) Forests NSW must ensure that it has, at all times while this approval is in force, a plan or plans for the provision of a road and fire trail network within State forests in the Brigalow-Nandewar Region that comply with the requirements of this clause (“road and fire trail management plan”). An aim of the plan must be to provide for a road and fire trail network that enables or assists forestry operations to be carried out efficiently while limiting adverse environmental impacts of works relating to roads and fire trails and their use.
- (2) A road and fire trail management plan must specify the following:
 - (a) the objectives sought to be achieved in relation the provision of a road and fire trail network, during or by the end of the term of the plan, and the strategies to be adopted to achieve those objectives,
 - (b) standards to be applied in carrying out works relating to roads and fire trails (such as their construction, up-grading, re-opening, maintenance and closure (including rehabilitation of the land)),
 - (c) the environmental impacts of using roads and fire trails and works relating to them (such as construction and rehabilitation of land), and how it is proposed to limit any adverse impacts,
 - (d) procedures for setting priorities for carrying out works relating to roads and fire trails.
- (3) A requirement to specify a matter in subclause (2) (b), (c) or (d) may be met by applying or adopting provisions of another document (such as Forests NSW’s Road Work Systems Manual or Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003)), including by way of reference.
- (4) A road and fire trail management plan must identify existing roads and fire trails within State forests in the Brigalow-Nandewar Region and any roads and fire trails proposed to be constructed during the term of the plan. It may identify such roads and fire trails by reference to the Forests NSW corporate geodatabase.
- (5) A road and fire trail management plan must provide for the following:
 - (a) monitoring the environmental impact of works relating to roads and fire trails and their use,
 - (b) assessing the extent to which the objectives of the plan are achieved, and the effectiveness of strategies implemented under the plan to achieve them,
 - (c) monitoring the implementation and effectiveness of measures and procedures referred to in subclause (2) (c) and (d),
 - (d) reporting on the results of monitoring and assessment undertaken in accordance with the plan.

- (6) A road and fire trail management plan may include matters in addition to those referred to in subclauses (2), (4) and (5). A plan may apply to State forests within a region or part of the State that includes, but is not limited to, the Brigalow-Nandewar Region.
- (7) The document entitled “Road Management Plan 2006 Western Region NFOB”, as prepared by Forests NSW in April 2006 and as approved for implementation by the Director Native Forests Division of Forests NSW, is taken to be a road and fire trail management plan for the purposes of this clause.

60. Road and fire trail management plan – review and amendment

- (1) Forests NSW must review the road and fire trail management plan applying to the Brigalow-Nandewar Region, regularly and periodically (and at least every 5 years from its approval for implementation). Accordingly, the Road Management Plan 2006 Western Region NFOB must be reviewed by 30 June 2011.
- (2) The review is to be conducted in light of the results of monitoring and assessment carried out under the plan (as referred to in clause 59 (5)) and any new information or measures (if available to Forests NSW) relevant to limiting the adverse environmental impact of road works and the use of roads.
- (3) Forests NSW may amend or prepare a new road and fire trail management plan, following a review or at any time.

61. Road and fire trail management plan – Forests NSW to give effect to plan

Forests NSW is to give effect to its road and fire trail management plan, as current from time to time. However, to the extent of any inconsistency between this approval and a road and fire trail management plan, this approval prevails.

62. Road closure

- (1) A road or fire trail must be closed, and the relevant land rehabilitated, as soon as practicable after it is no longer required for the carrying out of forestry operations.
- (2) Subclause (1) does not apply where the road or fire trail concerned:
 - (a) is being used, or is proposed to be used, for activities other than forestry operations, or
 - (b) is intended to be used for future forestry operations (but only if that intention is identified in any relevant road and fire trail management plan).
- (3) In this clause, “forestry operations” has the same meaning as in the *Forestry and National Park Estate Act 1998*.

PART 1.3 – PLANNING FORESTRY OPERATIONS

Division 1 – Application of Part

63. Application of Part

- (1) This Part applies only to forestry operations of the following kinds:
 - (a) a logging operation,

- (b) a forest products operation,
 - (c) non-commercial thinning,
 - (d) weed control,
 - (e) pest animal control,
 - (f) a burning operation,
 - (g) ancillary road construction.
- (2) Despite subclause (1), this Part does not apply to a forestry operation if it comprises any of the following:
- (a) the taking of timber or products in accordance with an authorisation by Forests NSW under section 30I of the *Forestry Act 1916*,
 - (b) a miscellaneous forestry operation,
 - (c) the harvesting of stems or branches for didgeridoos,
 - (d) the provision of roads (including bush tracks) that are not or will not (when constructed or re-opened) be classified under Forests NSW's road classification system (set out in its road and fire trail management plan) as feeder roads or harvesting roads,
 - (e) the provision of fire trails constructed or re-opened solely for the purpose of emergency fire fighting.

(Nothing in this subclause prevents Forests NSW applying the provisions of this Part to such a forestry operation.)

Division 2 – Planning forestry operations on an annual basis

64. Annual planning to reduce cumulative effect of logging operations

In planning logging operations for a financial year, Forests NSW must, as far as is reasonably practicable, disperse those operations over the Brigalow-Nandewar Region and over time, so as to reduce any cumulative impacts of logging operations in any part of the Region.

65. Preparation of annual program of forestry operations

- (1) Forests NSW is to prepare a program of forestry operations to which this Part applies (other than forest products operations) for each financial year ("annual program").
- (2) The annual program is to include the following information in relation to each proposed forestry operation:
 - (a) the intended location of the operation (including, if the location is within State forest, the State forest name and the relevant compartment number or numbers),
 - (b) the nature of the operation.
- (3) Forests NSW is to forward a copy of the annual program for a financial year to DECCW and DII (Fisheries) before the commencement of that financial year.
- (4) The first annual program is required to be prepared for the first full financial year (commencing 1 July) following the commencement of this approval.
- (5) Forests NSW must keep each annual program until at least the end of the financial year to which the program relates.

66. Annual program - additional information about logging operations

The annual program for each financial year is to include an estimate of the kinds and quantities of timber products that will be yielded from the logging operations proposed for that financial year. The plan is also to indicate the intended order in which the proposed logging operations will be carried out.

67. Annual program - additional information about burning operations

The annual program for each financial year is to indicate the season in which proposed burning operations are intended to be carried out.

68. Departures from annual program – logging operations

Logging operations may be carried out during a financial year other than at the locations and in the order proposed in the annual program for that year, but only if that is necessary or desirable having regard to the particular circumstances and conditions (such as market forces and weather) at the relevant time.

Note: Any departures from the annual program will be apparent from the monthly advice on forestry operations that Forests NSW is required to prepare under Part 1.4.

Division 3 – Planning for each operation

69. What is required before carrying out a forestry operation

Before carrying out a forestry operation to which this Part applies in a compartment or other tract of land, Forests NSW must prepare a site specific operational plan for the operation in accordance with the requirements of:

- (a) this Division, and
- (b) Part 2.1, and
- (c) Division 1 of Part 3.3, and
- (d) Part 4.2,

to the extent those requirements are applicable to the operation concerned.

Note: The requirements of Chapters 2, 3 and 4 referred to above relate to the specific matters that need to be addressed in the planning of and preparation for a forestry operation to ensure that the terms or objectives of each licence set out in this approval are met in carrying out the operation.

70. Site specific operational plan for forestry operations – general

- (1) In preparing a site specific operational plan for any forestry operation to which this Part applies, Forests NSW is to consider the application of this approval to the operation.
- (2) The plan is to contain one or more operational maps (“operational map”) identifying the location of the proposed operation (by including, if this location is within a State forest, the relevant State forest name and compartment number or numbers).
- (3) A site specific operational plan may relate to more than one kind of operation, such as a logging operation and ancillary road construction.
- (4) The site specific operational plan is to contain such information and instructions as Forests NSW considers necessary to enable its members of staff and other persons to carry out the forestry operation concerned in accordance with this approval.

- (5) The site specific operational plan is to specify any measures that are to be taken to protect heritage items known to be present in the location of the proposed operation from any adverse impacts of the operation (in accordance with clause 100).
- (6) Forests NSW must ensure that a copy of any authorisation or approval by a regional manager of Forests NSW or by DECCW for the purposes of a forestry operation is kept with a copy of the site specific operational plan for the operation and other documents or records relating to the operation.
- (7) Forests NSW must keep a copy of each site specific operational plan for a forestry operation (as approved by a regional manager of Forests NSW) until the completion of any review or assessment of this approval (as described in clause 95) that relates to the period during which the forestry operation is undertaken.

71. Site specific operational plans for logging operations – additional matters

The site specific operational plan for a logging operation is also to specify the following:

- (a) the type of silviculture to be applied in the operation,
- (b) the species of trees that are to be targeted in the operation,
- (c) the kinds of timber products (for example, sawlogs or vineposts) expected to be produced by the operation.

72. Site specific operational plans for burning operations – additional matters

The site specific operational plan for a burning operation is also to specify the following:

- (a) the measures to be taken to minimise any adverse impacts of the operation on the environment and the risk of wildfire resulting from the operation,
- (b) the steps to be taken to monitor the impacts of the operation on the environment.

73. Operational map

- (1) The operational map that must be included in the site specific operational plan for a forestry operation are to be drawn at a scale of at least 1: 50 000. A scale bar is to be included on the map or maps.
- (2) The operational map is to depict any area in which the operation is prohibited or restricted under this approval (such as an environmentally significant area) if that area is represented spatially on the FNSW corporate geodatabase (at the time of preparation of the map) and is of sufficient size to be represented adequately on the map.
- (3) Any other area in which the operation is not to be carried out (such as an area occupied by an endangered or critically endangered ecological community) is also to be depicted on the map, if known to be present in the compartment or other tract of land concerned at the time of preparation of the map and of sufficient size.
- (4) If an area in which the forestry operation is prohibited or restricted (being an area that is known to be present in the compartment or other tract of land concerned at the time of preparation of the map) is too small to be represented adequately on the operational map, Forests NSW is to indicate its presence, location and size on the map by another means.

- (5) Each operational map must show or include the following:
- (a) grid co-ordinates (showing eastings and northings),
 - (b) contour lines,
 - (c) any compartment boundaries,
 - (d) any State forest boundary (within the geographic area represented on the map),
 - (e) name and location (if known) of any significant geographical features,
 - (f) a title, with reference to the relevant State forest name and compartment number or numbers (in the case of State forest),
 - (g) a reference to the applicable topographic map sheet names and numbers,
 - (h) a map legend to enable each type of feature or area marked on the map to be correctly identified,
 - (i) roads, fire trails and bush tracks (including any proposed to be constructed or created), with an indication of which roads, trails and tracks are proposed to be used in the forestry operation concerned.

Note: Chapters 2, 3 and 4 contain additional requirements in relation to the operational map. Schedule 1 sets out a "check-list" of the matters to be depicted or indicated on the operational map. It is for assistance only.

- (6) A road, bush track or fire trail is not required to be shown on the operational map if its total length is no more than 40 metres.

74. Site specific operational plans to be complied with

- (1) Forests NSW, and any other person, must endeavour, in carrying out a forestry operation, to do so in accordance with the site specific operational plan for the operation. However, if the forestry operation departs from the plan, Forests NSW must:
- (a) prepare a document that sets out the reason for the departure, and
 - (b) amend the plan, or prepare a document that sets out how the operation departs from the plan and keep this document with the plan.
- (2) To the extent of any inconsistency between this approval and a site specific operational plan, this approval prevails.

PART 1.4 – ADVICE, PLANS AND OTHER REPORTS FOR DECCW AND DII (FISHERIES)

Division 1 – Monthly advice on operations

75. Application of Division

This Division applies only to forestry operations of the following kinds (and only if a site specific operational plan is required to be prepared for the operation under Part 1.3):

- (a) a logging operation,
- (b) harvesting of broombush,
- (c) a non-commercial thinning operation,
- (d) a burning operation,
- (e) ancillary road construction.

A reference to a forestry operation in this Part is to be construed accordingly.

76. Monthly advice on operations

- (1) By the first working day of each month, Forests NSW is to give DECCW and DII (Fisheries) written advice on:
 - (a) each forestry operation to which this Division applies that has been undertaken in the financial year in which that month falls, and
 - (b) each forestry operation to which this Division applies proposed to be undertaken in that month or the next month,

in accordance with this clause and clause 302 (Additional details for logging operations and road works in monthly advice).

Note: Clause 302 in Chapter 4 specifies additional requirements in relation to the contents of the monthly advice for logging operations and ancillary road construction.

- (2) In the case of the monthly advice to be provided by the first working day of July in any year, the advice is to deal with each operation undertaken in the preceding financial year (as well as proposed operations as described in subclause (1) (b)). (A copy of each such monthly advice is to be kept by Forests NSW for the remainder of the term of this approval.)
- (3) The monthly advice is to include the following details in relation to each forestry operation:
 - (a) the nature of the operation,
 - (b) the location of the operation (by including, if the location is within State forest, the State forest name and the relevant compartment number or numbers),
 - (c) if the site specific operational plan has been approved by a regional manager of Forests NSW, the date on which it was so approved,
 - (d) the date on which or month in which the operation commenced, recommenced or is proposed to commence or recommence, in the relevant compartment or other tract of land,
 - (e) if the operation has been and remains suspended at the date of the advice, the date on which it was suspended,
 - (f) if the operation has been completed, the date on which it was completed,
 - (g) the net mapped operation area (in hectares) for the proposed operation,
 - (h) the number of authorisations given by a regional manager of Forests NSW in relation to the operation.
- (4) If the operation is a proposed logging operation, the monthly advice is to specify the quantity of timber that Forests NSW estimates the operation will yield. The estimate may be specified by referring to a quantity within a range.
- (5) If the operation is a proposed logging operation or ancillary road construction, the monthly advice is to specify the total number of:
 - (a) threatened species of animal that are listed in the table to clause 173 (1) and have known habitat (within the meaning of that subclause) within the relevant compartment or other tract of land (and within 100 metres of it), and
 - (b) threatened species of plant that are listed in the table to clause 177 (1) next to the name of the State forest for which the operation is proposed.

- (6) In relation to each forestry operation listed in the monthly advice, that advice is to indicate whether or not the forestry operation has been included in a previous monthly advice and, if it has been, whether any details in relation to the operation have been amended or are additional.
- (7) Forests NSW is not required to give details of any forestry operation that has been completed before the commencement of this approval, in a monthly advice required under this clause. A monthly advice is not required to be provided in the calendar month in which this approval commences.

77. Operation not to be undertaken unless specified in monthly advice etc

- (1) A forestry operation to which this Division applies may be commenced or recommenced in a compartment or other tract of land only if:
 - (a) it has been identified as an operation that is to be commenced or recommenced in a monthly advice given to DECCW and DII (Fisheries) under clause 76, and
 - (b) at least two working days have elapsed since the submission of the monthly advice in which the proposed commencement or recommencement date for the operation is first specified.
- (2) In addition, the operation may not be commenced or recommenced before the date or month specified, in the current monthly advice, for its commencement or recommencement, unless Forests NSW has given DECCW and DII (Fisheries) written notice of the earlier date or month at least two working days before that earlier date or the first day of the earlier month.
- (3) A forestry operation may be undertaken only within the location specified in the current monthly advice. However, Forests NSW may extend or otherwise vary the area in which it undertakes the operation, by giving DECCW and DII (Fisheries) written notice of the variation.
- (4) A forestry operation may be recommenced in the same month in which it was suspended, despite the restrictions on recommencement in subclauses (1) and (2).

78. Monthly advice may be amended at any time

- (1) Forests NSW may amend the monthly advice it has given to DECCW and DII (Fisheries) at any time, including by adding a proposed forestry operation to it. Forests NSW is to give DECCW and DII (Fisheries) a written outline of the reasons for each amendment.
- (2) If Forests NSW becomes aware that any details included in the monthly advice it has given to DECCW and DII (Fisheries) are incorrect, it must give an amended advice to DECCW and DII (Fisheries) within 7 days of becoming so aware (unless the next monthly advice is due within that period).
- (3) The monthly advice as amended (once given to DECCW and DII (Fisheries)) is then the current monthly advice for the purposes of clause 77.

79. Operational map and location map to be given to agencies for each new operation

- (1) Forests NSW is to give DECCW and DII (Fisheries):

- (a) a copy of the operational map for each forestry operation listed in a monthly advice given to those agencies, and
 - (b) a location map that clearly identifies the location within the Brigalow-Nandewar Region of the compartment or other tract of land in which that operation is proposed to be carried out and that shows the roads proposed to be used to access the compartment or other tract of land, and
 - (c) in the case of a salvage logging operation following a wildfire (within the meaning of Division 3 of Part 3.4), a map of the total area within the Brigalow-Nandewar Region devastated or damaged by the event if the operational map for the salvage logging operation does not show the full extent of the devastated or damaged area.
- (2) The maps are to be given to the agencies at least two working days before the commencement of the forestry operation in the compartment or other tract of land.
 - (3) Forests NSW is to give DECCW and DII (Fisheries) a copy of any amended operational map or location map. If Forests NSW becomes aware that any details shown on an operational map or location map given to those agencies are incorrect, misleading or incomplete, it must give the agencies a copy of an amended map within 7 days of becoming so aware and identify the corrections or additions made when forwarding it.

Division 2 – Annual reports

80. Annual reports on forestry operations

- (1) Forests NSW is to provide DECCW and DII (Fisheries) with a report on forestry operations undertaken in the Brigalow-Nandewar Region in each financial year. The information that must be included in the annual report is set out in clauses 81 to 87.
- (2) The first annual report under this Division is required for the first full financial year (commencing 1 July) after the commencement of this approval. However, that report is also to include information on forestry operations undertaken in the remainder of the financial year immediately following the commencement of this approval.
- (3) Forests NSW may provide the annual report on forestry operations in one document or more than one document. (For example, it may prepare separate documents for each kind of forestry operation, such as logging operations, for the financial year.)

81. Information about logging operations

- (1) An annual report under this Division is to include the following information in relation to logging operations in the relevant financial year:
 - (a) the quantity of timber yielded by those operations (including the quantity of each kind of timber product sold by Forests NSW, such as logs, firewood and residue),
 - (b) an estimate of the total area over which logging has been carried out, together with the total net operational area (in hectares) for logging operations in that year,
 - (c) the location of logging operations (including, if the location of an operation is within State forest, the name of the State forest and the compartment number or numbers).
- (2) However, Forests NSW is not required to take into account logging operations that comprise miscellaneous forestry operations or that are authorised under section 30I of the *Forestry Act 1916* in compiling the information about logging operations for the purposes of subclause (1).

- (3) In the case of timber harvested from Western hardwood and Tableland hardwood species (other than western ironbark), the information required by subclause (1) (a) in relation to quantity is to be expressed as a volume. In addition, the annual report is to specify the diameter (wherever measured) of each product sold by Forests NSW from timber harvested from those species and identify the species concerned.

82. Information about operations producing firewood

An annual report under this Division for a financial year is to include the following information that is or may be relevant to assessing the use of timber harvested in the Brigalow-Nandewar Region for firewood:

- (a) the total quantity of residue timber that is produced from trees felled in that year and that is sold by Forests NSW as firewood or as residue,
- (b) the species of trees felled in the year from which residue timber was sold, whether as firewood or as residue,
- (c) the number of authorisations issued by Forests NSW under section 30I of the Forestry Act 1916 for the collection of firewood in the year,
- (d) the names of the State forests in which firewood was authorised to be collected under section 30I of the Forestry Act 1916 in the year,
- (e) the quantity of firewood authorised to be collected under section 30I of the Forestry Act 1916.

A reference in this clause to residue timber is a reference to timber remaining after a log or logs have been removed from individual trees.

Note: It was proposed, when this approval commenced, to carry out a review of the provisions of the approval that relate to the collection or production of firewood after 5 years.

83. Information about harvesting operations for didgeridoo production

An annual report under this Division for a financial year is to include the following information in relation to the harvesting of hollow stems or branches for didgeridoo production:

- (a) the number of hollow stems and branches that were authorised to be taken under the Forestry Act 1916 in that year, whether by means of a licence under Division 2 of Part 3 of that Act or an authorisation under section 30I of that Act (and whether or not harvesting has been carried out under the licence or authorisation in that year),
- (b) the location of each harvesting operation authorised by Forests NSW in that year (including, if the location is within State forest, the name of the State forest and the compartment number or numbers).

84. Information about forest products operations

An annual report under this Division for a financial year is to specify the nature of forest products operations that were authorised under the Forestry Act 1916 in that year and, to the extent to which the information is available, the quantity of each forest product (such as broombush) authorised to be taken under the Forestry Act 1916 in that year.

85. Information about burning operations

An annual report under this Division for a financial year is to include the following information in relation to burning operations in that year:

- (a) the total area within the Brigalow-Nandewar Region in which burning operations were conducted,
- (b) the location of each burning operation (including, if the operation is within State forest, the name of the State forest and the compartment number or numbers),
- (c) the purpose of each burning operation (for example, bush fire hazard reduction).

86. Information about non-commercial thinning operations

An annual report under this Division for a financial year is to specify the total area within the Brigalow-Nandewar Region over which non-commercial thinning operations were carried out in that year.

87. Information about grazing

An annual report under this Division for a financial year is to specify the total area within State forests in the Brigalow-Nandewar Region over which grazing of domestic stock was authorised by Forests NSW under the Forestry Act 1916 (whether under new or existing grazing permits or forest leases) in the year.

88. Annual report to be given to DECCW and DII (Fisheries)

The annual report under this Division for a financial year is to be provided to DECCW and DII (Fisheries) by 1 September in the next financial year. (A copy of each annual report under this Division is to be kept by Forests NSW for the remainder of the term of this approval).

PART 1.5 – RECORD KEEPING, COLLECTION OF INFORMATION AND PUBLIC AVAILABILITY OF INFORMATION

89. Operations register

- (1) Forests NSW must ensure that a register of forestry operations in the Brigalow-Nandewar Region is kept in accordance with this clause.
- (2) The register is to include, in relation to each forestry operation undertaken or proposed to be undertaken in the Brigalow-Nandewar Region (and listed in a monthly advice forwarded to DECCW and DII (Fisheries)), copies of the following:
 - (a) any approval given by DECCW for the purpose of the operation (and any conditions to which the approval is subject),
 - (b) any assessment and authorisation given by a regional manager of Forests NSW that is required under this approval before the operation may be undertaken,
 - (c) a copy of each monthly advice in which the operation is referred to, and the operational map and location map for the operation (and any amended maps),
 - (d) any assessment and approval given by Forests NSW for the purposes of Chapter 5.
- (3) The documents relating to a forestry operation on the register are to be kept on that register for at least 4 years after the completion of the forestry operation.

90. Compartment histories

Forests NSW must keep records for each compartment in a State forest within the Brigalow-Nandewar Region (“compartment histories”) identifying the following matters:

- (a) the forestry operations that have been undertaken in the compartment (at least since the commencement of this approval) and for which site specific operational plans were prepared,
- (b) features, records or other things that have been recorded during a survey under this approval or found during a forestry operation (as noted, for example, on a copy of the site specific operational plan for the operation),
- (c) any forest products operations that have been authorised under the Forestry Act 1916 for that compartment (in addition to those identified under paragraph (a)),
- (d) any wildfires that have occurred in the compartment,
- (e) any activities undertaken in the compartment to promote regeneration after harvesting timber or forest products,
- (f) particulars of any occupation permit (to occupy land for bee-farming or any other purpose) or any grazing permit issued under section 31 of the Forestry Act 1916 applying to the compartment,
- (g) particulars of any forestry lease issued under section 33 of the Forestry Act 1916 applying to the compartment.

91. Records to be legible

Forests NSW must ensure that any written record, approval, register or other document that it makes, gives or keeps for the purposes of this approval is legible. (However, any such record, approval, register or other document may be kept in electronic form under clause 18).

92. Forests NSW required to provide information and copies of records etc.

- (1) Forests NSW must give DECCW or DII (Fisheries) such information or copies of records (or both) as may be specified by either agency in a written notice to Forests NSW, if the information or record relates to a matter connected with this approval.
- (2) Any other person must give DECCW or DII (Fisheries) such information or copies of records (or both) as may be specified by either agency in a written notice to the person, if the information or record relates to a forestry operation that the person has carried out, is carrying out or proposes to carry out in the Brigalow-Nandewar Region.
- (3) Forests NSW or other person must give DECCW or DII (Fisheries) (as the case may be) the information or a copy of each record specified in the written notice:
 - (a) within 21 days of receiving the notice or such longer period as may be specified in the notice, and
 - (b) in the case of information, in the manner and form specified in the notice (if any).
- (4) Nothing in this clause requires any person (including Forests NSW) to give DECCW or DII (Fisheries) information or a copy of a record if:
 - (a) the person could resist production of the information or record in or in connection with court proceedings, or
 - (b) the record is not in the possession of the person or within the person's power to lawfully obtain.
- (5) Nothing in this clause relieves a person (including Forests NSW) of an obligation to give DECCW or DII (Fisheries) information or records imposed by or under any Act or a term of a licence set out in this approval.

- (6) In this clause, “record” includes any document that is prepared for the purposes of this approval.

93. Period for which records need to be kept

- (1) Unless otherwise indicated in this approval, Forests NSW must keep any record, document, plan, program, authorisation or approval that is required under this approval for at least 4 years from the date of its finalisation or from the last date on which it is given effect to or relied on in carrying out a forestry operation (as the case may require).
- (2) To avoid doubt, subclause (1) does not allow records kept in compartment histories under clause 90 to be discarded at the end of 4 years.

94. Forests NSW to assist DECCW officers to collect information

Forests NSW must assist DECCW to collect information with respect to compliance with this approval. In particular, access to any part of the Brigalow-Nandewar Region is to be given to DECCW officers.

Note: DECCW officers may rely on this clause to collect information to assist the Minister administering the Forestry and National Park Estate Act 1998 to prepare an annual report referred to in section 21 of that Act.

95. Assessment of effectiveness of this approval

- (1) Forests NSW must assist DECCW (and DII (Fisheries)) in any assessment or review of this approval that the Minister for Climate Change and the Environment or DECCW decides to carry out, if requested to do so.
- (2) For the purposes of this clause, an assessment or review of this approval is an assessment or review of the effectiveness of all or any of its terms in achieving their purpose, having regard to the following:
- (a) new information that has become available, and techniques that have been developed, relating to the carrying out of forestry operations, since the approval was granted,
 - (b) difficulties in implementing the approval that have become apparent since the approval was granted, including any concerns relating to the enforcement of its terms, and
 - (c) such other matters as DECCW considers relevant.

96. Public availability of documents and information

- (1) Forests NSW must ensure that copies of the following documents are available for public inspection during ordinary office hours at its principal Regional Office for the Brigalow-Nandewar Region:

Documents referred to in Chapter 1

- (a) the document entitled, “Forest Management Zoning in State Forests” (State Forests of New South Wales, December 1999),
- (b) forest management zoning maps that are copies of the current FMZ layer and that apply to land within the Brigalow-Nandewar Region,
- (c) the document entitled, “Management for Nature Conservation – Western Region 2008” (Forests NSW, October 2008),

- (d) the document entitled, "Silvicultural Guidelines for Harvesting in Brigalow-Nandewar Bioregion" (Forests NSW, August 2008),
- (e) each current pest animal management plan, weed management plan, grazing management plan, burning operations management plan and road and fire trail management plan required under Part 1.2,
- (f) the current annual program of forestry operations prepared under Part 1.3,
- (g) the current monthly advice on forestry operations prepared under Part 1.4,
- (h) each monthly advice prepared under Part 1.4 provided in July of each year,
- (i) each annual report on forestry operations prepared under Part 1.4,
- (j) the operations register required to be kept under Part 1.5,

Documents referred to in Chapter 3

- (k) each species management plan for a threatened species of plant prepared under clause 149 and forwarded to the Director-General of the Department of Environment, Climate Change and Water,
 - (l) each monitoring plan for a species of plant prepared under clause 152 and forwarded to the Director-General of the Department of Environment, Climate Change and Water,
 - (m) the species management plan for *Tylophora linearis* referred to in clause 158,
 - (n) the monitoring plan for *Polygala linariifolia* referred to in clause 159,
 - (o) forest management zoning maps that are copies of the FMZ layer as at 3 November 2008 showing Zone 3A ESAs as referred to in clause 244 (1) (h), together with any such map that shows any additional Zone 3A ESA established after that date (as current from time to time).
- (2) Forests NSW must ensure that copies of each of the following documents are available for public inspection during ordinary office hours at the office of Forests NSW responsible for managing the land to which the document relates:
- (a) any harvesting plan prepared under the continued licences within the meaning of Division 3 of Part 1.1 if a forestry operation is continued or commenced in accordance with the plan after the commencement of this approval,
 - (b) any site specific operational plan that is required to be kept by Forests NSW under clause 70 (7).
- (3) Any person may take copies of any of the documents (or, if Forests NSW and the person agree, extracts of any of the documents) referred to in subclause (1) or (2) on payment of a reasonable fee to cover the cost of copying (as determined by a regional manager of Forests NSW) or, if no fee has been determined, free of charge.
- (4) Despite subclauses (1) to (3), Forests NSW may not make any document available for inspection or copying contrary to any request from DECCW to maintain the confidentiality of information concerning the location of any threatened species, population or ecological community or its habitat (within the meaning of the Threatened Species Conservation Act 1995).
- (5) For the purpose of fulfilling Section 66 of the Act, FCNSW must publish any monitoring data that relates to pollution on its website within 14 days of obtaining that data.

AMENDMENT 1
1 March 2013
Clause 96(5)
added

PART 1.6 - MISCELLANEOUS

Division 1 - Protection of cultural heritage

97. Records concerning heritage items

Forests NSW must periodically and regularly review and up-date its records concerning heritage items (including any database it has established for the purpose) within the Brigalow-Nandewar Region. In doing so, Forests NSW must ensure that any relevant information concerning heritage items in the Region contained in the following databases is included in its records:

- (a) the database established as part of the Aboriginal Heritage Information Management System maintained by DECCW (to the extent to which Forests NSW has access to the database),
- (b) the online database maintained by the Heritage Branch of the Department of Planning (also known as the State Heritage Inventory) of NSW heritage items (including items on the State Heritage Register kept under the Heritage Act 1977).

98. Discovery of heritage items

If Forests NSW discovers or becomes aware of the discovery of an Aboriginal object within the meaning of the National Parks and Wildlife Act 1974 on State forest within the Brigalow-Nandewar Region during the term of this approval, Forests NSW is to notify the Director-General of the Department of Environment, Climate Change and Water of the location of the object, using the site recording form made available by DECCW as part of its Aboriginal Heritage Information Management System or otherwise in accordance with procedures that DECCW publishes from time to time on its website (www.environment.nsw.gov.au).

Forests NSW is not required to notify the Director-General of the location of an Aboriginal object if Forests NSW has reasonable grounds for believing that the Director-General is already aware of its location.

99. Identifying heritage items for the purposes of forestry operations

- (1) Before carrying out, or authorising the carrying out of, a forestry operation, Forests NSW is to take all reasonable steps to identify heritage items that are present in the proposed location of the forestry operation. Those steps are to include checking its records concerning heritage items, including the register that it keeps for the purposes of section 170 of the Heritage Act 1977.
- (2) If the proposed forestry operation is to be carried out in a location in relation to which there is scant information concerning the presence of heritage items, Forests NSW is to consider arranging for or undertaking a survey or surveys to determine whether heritage items are present. Forests NSW may rely on landform mapping to predict whether Aboriginal objects are likely to be present in the location of a proposed forestry operation in deciding whether a survey is to be carried out.
- (3) Forests NSW is to ensure that any survey undertaken for the purpose of locating Aboriginal objects is to be carried out by a suitably qualified person.
- (4) A reference in this clause to landform mapping is a reference to the mapping of the geomorphological features of an area of land, for example, the mapping presented in

the following publication for the purpose of determining the likelihood of items of Aboriginal cultural heritage being present in Brigalow Belt South:

NSW National Parks and Wildlife Service (2002). Aboriginal Cultural Heritage Assessment - Report Brigalow Belt South (Stage 2). NSW Western Regional Assessments. Resource and Conservation Assessment Council (RACAC), Planning NSW, Sydney.

100. Protection of heritage items during forestry operations

- (1) Forests NSW is to take all reasonable measures to ensure that heritage items of which it is aware are protected from any adverse impacts of forestry operations.
- (2) Forests NSW, in determining measures for the protection of a heritage item, is to have regard to:
 - (a) its operational guidelines for Aboriginal cultural heritage management and its operational guidelines for non-Aboriginal cultural heritage management, as may be current from time to time (and as appropriate in the circumstances), and
 - (b) the significance of the heritage item and, in the case of an item that is also an Aboriginal object known to Forests NSW before the commencement of the relevant operation, its significance in particular to such local Aboriginal community or communities as may be able to be identified as having a connection to the object.
- (3) Nothing in this clause affects the rights of Forests NSW (or any other person) to apply for a permit or consent under section 87 or section 90 of the National Parks and Wildlife Act 1974 in relation to an Aboriginal object or Aboriginal place or their authority to do anything in accordance with any such permit or consent.

101. Training concerning heritage

- (1) Forests NSW is to ensure that members of staff and other persons authorised by Forests NSW to carry out forestry operations receive training (appropriate to their role) in relation to the following:
 - (a) the identification of heritage items,
 - (b) measures to be taken to protect heritage items from adverse impacts of forestry operations,
 - (c) any legal requirements in relation to protection of heritage items which may affect the carrying out of forestry operations.
- (2) Forests NSW is to review, from time to time, the training program it provides in relation to the matters outlined in subclause (1) to ensure the contents reflect current information and legal requirements. Forests NSW is to ensure that members of staff and other persons receive such further training as may be necessary from time to time.

Division 2 – Other matters

102. Research

Any research, undertaken by or on behalf of Forests NSW, for the purposes of a review of this approval or any other matter relating to its terms, is to be guided by the following principles and objectives:

- (a) the aims of, or questions posed by, the research are clearly defined,

- (b) the method adopted for the research is appropriate in light of the aims of, and questions to be addressed by, the research,
- (c) the procedures adopted to carry out the research minimise the potential for individual bias to affect the results of the research,
- (d) the data collected in the research is reliable.

103. Forests NSW to ensure compliance by certain persons

- (1) Forests NSW must expressly require as a condition of any licence, permit or other authority that it issues or grants under the Forestry Act 1916, authorising the carrying out forestry operations, that the holder of the licence, permit or authority comply with the applicable terms of this approval.

Note: The purpose of the above condition is:

- to promote awareness among holders of authorities under the Forestry Act 1916 of their responsibilities under this approval, and
- to ensure that, by including relevant express conditions in authorities, Forests NSW is effectively able to enforce compliance with this approval under the Forestry Act 1916.

Section 26 (2) of the Forestry and National Park Estate Act 1998 requires that all persons carrying out forestry operations to which an approval applies comply with its terms.

- (2) Forests NSW must include a condition in such an authority that, if there is an inconsistency between the authority and the approval, the approval prevails.
- (3) Forests NSW must take all reasonably practicable steps to ensure that, in so far as they are authorised to carry out forestry operations by Forests NSW, the following persons comply with the applicable terms of this approval:
 - (a) members of staff,
 - (b) licence holders under the Forestry Act 1916,
 - (c) permit holders under the Forestry Act 1916,
 - (d) other persons authorised under the Forestry Act 1916 (including section 30I),
 - (e) contractors, subcontractors and agents of Forests NSW.
- (4) In particular, Forests NSW must:
 - (a) ensure that the persons referred to in subclause (3) are given sufficient information about, and training in, their responsibilities under this approval, and
 - (b) ensure that those persons are adequately supervised when carrying out forestry operations, that the carrying out of forestry operations is monitored, and that particulars of the supervisory and monitoring arrangements are recorded, and
 - (c) ensure that measures are taken to address any breaches of this approval to which a person referred to in subclause (3) may have contributed and that procedures (including supervisory or monitoring arrangements) are reviewed, if necessary, to minimise the risk of any such breach recurring.
- (5) For the purpose of ensuring adequate supervision of persons involved in the carrying out of a forestry operation (as referred to in subclause (4) (b)) in a compartment or other tract of land, a member of Forests NSW staff must be present in that compartment or other tract of land for at least one full working day a fortnight (in the case of a major operation) and one full working day a month (in the case of a minor operation) during the operation. Forests NSW must ensure that the name of any such member of staff, and the days and times at which he or she was present, are recorded.

CHAPTER 2: PROTECTION OF DRAINAGE FEATURES AND WETLANDS

(Terms of licences under the Threatened Species Conservation Act 1995, Protection of the Environment Operations Act 1997 and Part 7A of the Fisheries Management Act 1994)

PART 2.1 – INTERPRETATION OF CHAPTER AND PLANNING OPERATIONS NEAR DRAINAGE PROTECTION AREAS

Division 1 – Interpretation of Chapter and identification of drainage protection areas

104. Chapter sets out terms of licences

- (1) The provisions of this Chapter are terms of the licences under:
 - (a) the Threatened Species Conservation Act 1995, and
 - (b) the Protection of the Environment Operations Act 1997, and
 - (c) Part 7A of the Fisheries Management Act 1994,as described in clauses 6, 7 and 8 respectively.
- (2) However, the provisions of this Chapter are only terms of the licence under the Protection of the Environment Operations Act 1997 in so far as they apply to or in relation to logging operations and ancillary road construction, as referred to in clause 7 of this approval. Parts 2.3 and 2.4 are not terms of that licence.
- (3) Clauses 115 (3) and 129 (2) (and any other provision of this Chapter in so far as it refers to an approval of DECCW required under either subclause) are only terms of the licence under the Threatened Species Conservation Act 1995.

105. Relationship with Chapter 5

Nothing in this Chapter affects any restriction on works relating to a crossing of a drainage feature or a wetland (within the meaning of Chapter 5), or on the use of such a crossing, imposed by Chapter 5.

106. Drainage protection areas

The following areas are drainage protection areas for the purposes of this approval:

- (a) drainage feature protection zones as described in clause 107,
- (b) wetlands (of any size),
- (c) wetland protection zones as described in clause 108.

107. Drainage feature protection zones

- (1) This clause applies to the following drainage features:
 - (a) drainage lines (both mapped and unmapped), and
 - (b) mapped drainage depressions.

Note: A mapped drainage depression is a drainage depression that lies between any two sections of a mapped drainage line or is a drainage depression that lies at the headwater or point of origin of a mapped drainage line.

- (2) Any area of land within the distance specified in column 2 of the table below (“table 1”) from a drainage feature specified next to it in column 1 is a drainage feature protection zone for the purposes of this approval. The distance specified:
- (a) in the case of a drainage line, is the distance from the top of the bank of the incised channel, or where there is no defined bank, from the edge of the channel, and
 - (b) in the case of a drainage depression, is the distance from the centre of the drainage depression,
- as measured along the ground surface.

Table 1: Drainage feature protection zones

Column 1 Drainage feature	Column 2 Distance
Unmapped drainage line	5 metres
1 st order mapped drainage line or mapped drainage depression	10 metres
2 nd order mapped drainage line or mapped drainage depression	20 metres
3 rd order mapped drainage line or mapped drainage depression	30 metres
4 th order mapped drainage line or mapped drainage depression	40 metres
5 th order or greater mapped drainage line or mapped drainage depression	50 metres

- (3) For the purpose of applying table 1, the location of a mapped drainage feature is to be determined in the field, rather than treated as the location indicated on the FMZ layer or a map (such as the operational map for the forestry operation concerned). If no drainage feature (or part of a drainage feature) can be found in the field that corresponds with a feature on the FMZ layer, then no protection zone is required in relation to the mapped feature.
- (4) Despite subclause (3), if a drainage line that is shown on the FMZ layer as continuous (or as a part of a continuous system of drainage lines) seems to peter out in the field, but then re-appears (without any observable drainage depression in between), then the area lying between the two observable sections of the drainage line is also a protection zone (linking the two parts of the protection zone centred on the observable sections of the drainage line). For the purposes of determining the width of the zone, the order (or orders) of the drainage line as shown on the FMZ layer (for the corresponding location in the field where there is no observable drainage feature) is to be applied.
- (5) For the purposes of applying table 1, the order of a drainage line is to be determined in accordance with Schedule 2 (including the schematic diagram of stream order set out in the Schedule) and, in the case of a mapped drainage feature, by reference to the FMZ layer, rather than in the field. The order of a mapped drainage depression is the order of the mapped drainage line in which the depression lies.
- (6) To avoid doubt, the drainage feature is also part of the drainage feature protection zone.

- (7) Despite any other provision, any area lying within a different catchment to the drainage feature is not part of the protection zone for that drainage feature.

108. Protection of wetlands

Note: A wetland of any size is a drainage protection area.

- (1) Any area of land within the distance specified in column 2 of the table below ("table 2") from a wetland of the size specified next to it in column 1 is a wetland protection zone for the purposes of this approval.

Table 2: Wetland protection zones

Column 1 Wetland size	Column 2 Distance (metres)
Wetland of at least 0.01 hectares but no more than 0.5 hectares	10
Wetland more than 0.5 hectares in area	20

- (2) For the purposes of this approval (including applying table 2), the boundary of a wetland is the outer edge of its saturated zone (as determined at the time of the relevant forestry operation) or the outer edge of a vegetation type that indicates a wetter micro-environment than that of the surrounding land, whichever boundary results in the larger area of wetland.

Division 2 – Planning operations in compartments containing drainage protection areas

109. Requirements of Division additional to requirements of Chapter 1

Nothing in this Division limits the requirements of Part 1.3.

110. Site specific operational plan to address requirements of this Chapter

The site specific operational plan for a forestry operation in a compartment or other tract of land must address how the provisions of this Chapter that, at the time of preparation of the plan appear to apply to the operation, will be applied to, or be given effect to in, the operation.

111. Operational map for forestry operation

The operational map for a forestry operation is to indicate the following:

- (a) the location of any mapped drainage line,
- (b) the order of each mapped drainage line (determined in accordance with clause 107 (5)),
- (c) the width of the protection zone for each mapped drainage line,
- (d) the location of any unmapped drainage line of which Forests NSW is aware at the time of preparation of the map,
- (e) the location of any wetland of which Forests NSW is aware at the time of preparation of the map and the width of any protection zone around it.

PART 2.2 – LOGGING OPERATIONS IN DRAINAGE PROTECTION AREAS

Note: "Logging operations" refers to the logging operations described in clause 5. The term generally includes a thinning operation where one of its purposes is timber production. The provisions of this Part are terms of the EPL as they relate to logging operations (as well as being terms of the other licences).

112. Certain logging operations excluded from operation of this Part

- (1) This Part does not apply to:
 - (a) the harvesting of branches or stems of trees for didgeridoos, and
 - (b) the collection of firewood from the floor of the forest,to the extent that either operation is a logging operation.
- (2) To avoid doubt, this Part applies to thinning or any other on-going forest management operation to the extent to which timber cut in the operation is removed for the purpose of its sale or use in timber products. However, the Part does not restrict an operation of either of the following kinds (even though timber products may be produced from that operation) in the drainage protection area in which the operation is carried out:
 - (a) the felling of trees for pest, weed or disease control, in accordance with an approval of DECCW under clause 121,
 - (b) the thinning of dense cypress re-growth, in accordance with an approval of DECCW under clause 122.

113. Logging operations prohibited in drainage protection areas

- (1) A logging operation must not be carried out in a drainage protection area.
- (2) To avoid doubt, a log dump must not be established, maintained or up-graded in a drainage protection area for the purpose of (or as part of) a logging operation.

114. Felling of trees into drainage protection areas and their removal

- (1) A tree (or part of a tree) must not be felled into a drainage protection area in a logging operation. However, this subclause is not breached where a tree is accidentally felled into a drainage protection area.
- (2) A tree or part of a tree that has been felled into a drainage protection area in a logging operation must not be removed, unless the tree or part has been accidentally felled into that area.
- (3) Only a mechanical harvester may be used to remove a tree or part of a tree that has been accidentally felled into a drainage protection area. When a mechanical harvester is used to remove a tree or part of a tree from the drainage protection area, it must be operated so that the tree (or the part) is lifted off the ground and removed from the area while wholly supported off the ground. The mechanical harvester's wheels or tracks must remain outside the drainage protection area.

115. Extraction of timber through drainage feature protection zones

- (1) This clause applies to the removal or extraction of timber, whether by snigging or forwarding, generally from the logging site (that is, the site at which the timber is felled) to a log dump.

- (2) Despite clause 113, timber cut on land outside a drainage feature protection zone in a logging operation may be removed via a route (whether or not an existing extraction track) through the drainage feature protection zone, but only if:
 - (a) there is no practicable alternative route available, and
 - (b) the proposed route crosses the drainage feature in the protection zone, and
 - (c) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager of Forests NSW has authorised the use of the proposed route in writing and a copy of the report (and authorisation) has been forwarded to DECCW.
- (3) If there is a record of a threatened species (within the meaning of clause 141) on the proposed route, the route may be used only if DECCW has first approved the use of the route in writing (following the receipt of the report referred to in subclause (2) (c)).
- (4) Despite subclause (2) (b), a proposed route may be used, even if it does not cross the drainage line or mapped drainage depression in the drainage feature protection zone, as long as the route does not come within 5 metres of:
 - (a) the top of the bank of the incised channel of the mapped drainage line, or where there is no defined bank, the edge of the channel, or
 - (b) the centre of the mapped drainage depression.
- (5) Work may be done to construct, create or re-open an extraction track (for example, by clearing trees or other vegetation) if the authorisation by the regional manager referred to in subclause (2) (and the approval by DECCW referred to in subclause (3), if required) includes an authorisation to do so.
- (6) Forests NSW must ensure that all practicable measures are taken to minimise or mitigate any adverse effect on the environment of the removal of timber through a drainage feature protection zone, including any work done to construct, create or re-open an extraction track. Any conditions relating to minimising or mitigating any adverse impact of the work on the environment imposed by DECCW as part of an approval under subclause (3) must be complied with.
- (7) In particular, soil stabilisation measures must be undertaken in any area within the drainage feature protection zone that has been disturbed by the removal of timber. These measures must be in place within 10 days of the disturbance or, if the soil is saturated, as soon as practicable when the soil is no longer saturated.
- (8) To avoid doubt, timber may not be removed along the course of a drainage line or mapped drainage depression.

Note: "Logging operations" involve the cutting and removal of timber as described in clause 5. The above clause deals with removal (or "extraction") of timber from the site of logging to a log dump. The effect of the clause is to allow removal of timber through a drainage feature protection zone (but not a wetland or wetland protection zone) in certain circumstances, despite the general prohibition on logging operations in clause 113. Division 5 deals with road construction, re-opening or up-grading, whether carried out at the same time as a logging operation or independently.

116. Use of existing roads, tracks and trails to remove timber cut in logging operation

Despite clause 113, timber cut on land outside a drainage protection area in a logging operation may be removed via a road, bush track or fire trail in the area if the road, track or trail:

- (a) was constructed before the granting of this approval or was constructed in accordance with this approval, and
- (b) does not run along the course of a drainage line or mapped drainage depression.

This clause does not affect the operation of clause 115.

PART 2.3 – FOREST PRODUCTS OPERATIONS AND SIMILAR OPERATIONS IN DRAINAGE PROTECTION AREAS

117. Harvesting for didgeridoos and harvesting of broombush prohibited

- (1) An operation to harvest branches or stems of trees for didgeridoos or other products must not be carried out in a drainage protection area.
- (2) An operation to harvest broombush must not be carried out in a drainage protection area.

118. Collection of firewood from floor of forest prohibited

- (1) Dry logs and other pieces of wood lying on the floor of the forest must not be collected for firewood (for either domestic or commercial purposes) from a drainage protection area.
- (2) This clause does not restrict the sale of residue timber (within the meaning of clause 33) for firewood.
- (3) In this clause, a reference to a dry log or other piece of wood is a reference to a log or other piece of wood from which the majority of the bark has been separated from the sapwood.

119. Forest products operations generally prohibited

- (1) This clause applies to forest products operations other than operations referred to in clause 117 or 118.
- (2) A forest products operation to which this clause applies must not be carried out within a drainage protection area except as provided by this clause.
- (3) Seeds may be collected from a drainage protection area.
- (4) Forests NSW may authorise an Aboriginal person to carry out a forest products operation in a drainage protection area, but only if:
 - (a) Forests NSW is of the opinion that there is no other land reasonably accessible to the Aboriginal person on which the relevant forest products (being products of trees, shrubs or other vegetation) may be harvested, and
 - (b) the scale and intensity of the harvesting to be authorised does not adversely affect the conservation value of the drainage protection area.

- (5) This clause does not affect any native title rights and interests (within the meaning of the *Native Title Act 1993* of the Commonwealth) existing in relation to any land within a drainage protection area.

PART 2.4 – ON-GOING FOREST MANAGEMENT OPERATIONS IN DRAINAGE PROTECTION AREAS

120. Felling of trees for the purpose of on-going forest management operations prohibited

- (1) A tree in a drainage protection area must not be felled, cut or destroyed in the course of, or for the purpose of, an on-going forest management operation, such as thinning, grazing or beekeeping.
- (2) A tree must not be felled into, or removed from, a drainage protection area in the course of, or for the purpose of, an on-going forest management operation.
- (3) Despite subclause (2), a tree of any cypress species may be cut using a brush cutter so that it falls into a drainage protection area in the course of non-commercial thinning of cypress regrowth.

121. Tree felling allowed if for pest, weed or disease control

- (1) Despite clause 120, trees may, with the approval in writing of DECCW, be felled, cut or destroyed (including by burning) within a drainage protection area (and removed from that area) for the purpose of assisting in the control of a pest, weed or disease (whether for the protection or rehabilitation of the environment or for the protection of timber resources).
- (2) An operation may be carried out under this clause even though timber in trees felled in the operation is removed for use in timber products. However, timber in trees of an ironbark species (other than western ironbark) or trees of a species belonging to the *Angophora* genus may not be removed for use in timber products.
- (3) An operation under this clause for the control of a pest, weed or disease may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including conditions relating to access to the drainage protection area and removal of any timber (or waste) from the area.
- (4) To avoid doubt, if pest, weed or disease control does not involve the felling or destruction of trees, it may be carried out in a drainage protection area without DECCW's approval. For example, pesticides, herbicides and insecticides may be applied in the drainage protection area without DECCW's approval.

122. Thinning dense cypress re-growth

- (1) Despite clause 120, a dense stand of cypress re-growth within a drainage protection area may, with the approval in writing of DECCW, be thinned (including through the use of fire).
- (2) A thinning operation may be carried out under this clause even though timber in trees felled in the operation is removed for use in timber products.

- (3) Thinning under this clause may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including any conditions relating to access to the stand of cypress re-growth within the drainage protection area and removal of any timber (or waste) from the drainage protection area.

123. Bush fire hazard reduction work restricted

- (1) Forests NSW must not carry out, or authorise the carrying out of, bush fire hazard reduction work within a drainage protection area, except to the extent necessary to fulfil its duty under section 63 of the Rural Fires Act 1997 or any other obligation imposed by or under that Act.
- (2) Subclause (1) is not breached if a fire is lit outside a drainage protection area for the purpose of bush fire hazard reduction but, despite the taking of all reasonable precautions to prevent it from doing so, the fire spreads to a drainage protection area.
- (3) Despite clause 120, a tree may be felled in (or into) a drainage protection area (and removed from that area) if necessary for Forests NSW to fulfil its duty under section 63 of the Rural Fires Act 1997 or any other obligation imposed by or under that Act.
- (4) This clause does not restrict grazing for the purpose of bush fire hazard reduction in a drainage protection area.

124. Burning for other silvicultural purposes restricted

- (1) This clause applies to a burning operation other than bush fire hazard reduction.
- (2) Forests NSW must not carry out a burning operation, or authorise such an operation, in a drainage protection area except:
 - (a) in accordance with clause 121 for the purpose of pest, weed or disease control, or
 - (b) in accordance with clause 122 for the purpose of thinning a dense stand of cypress re-growth, or
 - (c) in accordance with subclause (4) for the purpose of maintaining or restoring the ecology of the area.
- (3) Subclause (2) is not breached if a fire is lit outside a drainage protection area, but despite the taking of all reasonable precautions to prevent it from doing so, the fire spreads to a drainage protection area.
- (4) Forests NSW may carry out a burning operation, or authorise such an operation, for the purpose of maintaining or restoring the ecology of a drainage protection area with DECCW's approval in writing. Any such burning operation may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including any conditions relating to access to the drainage protection area.

125. Bee-keeping restricted

- (1) A beehive set-down site must not be established within a drainage protection area.
- (2) Native vegetation may be cleared or disturbed within a drainage protection area to maintain an existing beehive set-down site or access to such a site (despite clause 120). However:

- (a) trees in the area that have a dbhob of 100 mm or more may not be felled or destroyed only for this purpose, and
- (b) native vegetation in the area may be cleared or disturbed to maintain access to a beehive set-down site outside the area only if there is no alternative practicable means of access to the site.

(3) In this clause:

“existing beehive set-down site” means a beehive set-down site that existed as at the commencement of this approval or a beehive set-down site that is established after that date other than one established in breach of a term of this approval; and

Note: Chapter 3 also prohibits the establishment of a new beehive set-down site within an environmentally significant area. An area may not become an environmentally significant area for the purposes of Chapter 3 until evidence of a threatened species is found in the area or an area may not be known to be an environmentally significant area until a survey is carried out before a logging operation is undertaken in the compartment in which it is located. Accordingly, a beehive set-down site that is established before either occurrence will not have been established in breach of the approval (that is, it will be an existing beehive set-down site).

“native vegetation” has the same meaning as in the *Native Vegetation Act 2003*.

PART 2.5 – ANCILLARY ROAD CONSTRUCTION IN DRAINAGE PROTECTION AREAS

126. Application of Part to fire trails

Nothing in this Part restricts or prohibits the construction, re-opening, up-grading, maintenance or use of a fire trail solely for the purposes of emergency fire-fighting.

127. Construction of roads prohibited in wetlands and wetland protection zones

Roads, bush tracks and fire trails must not be constructed, re-opened or up-graded in wetlands and wetland protection zones.

128. Gravel pits and borrow pits prohibited

Gravel pits and borrow pits must not be located in drainage protection areas.

129. Construction of roads in drainage feature protection zones restricted

- (1) A road, bush track or fire trail may be constructed, re-opened or up-graded in a drainage feature protection zone only if:
 - (a) there is no practicable alternative route available, and
 - (b) the road, bush track or fire trail crosses (or is to cross) the drainage feature in the protection zone, and
 - (c) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager of Forests NSW has authorised the proposed works in writing and a copy of the report (and authorisation) has been forwarded to DECCW.
- (2) If there is a record of a threatened species (within the meaning of clause 141) on the proposed or existing route of the road, track or trail, the works referred to in subclause

- (1) may be carried out only if DECCW has first approved them in writing (following the receipt of the report referred to in subclause (1) (c)).
- (3) Despite subclause (1) (b), a road, bush track or fire trail may be constructed, re-opened or upgraded in a protection zone for a mapped drainage line or mapped drainage depression, even if the road, track or trail does not cross the drainage line or depression, as long as the works do not disturb any area within 5 metres of:
- (a) the top of the bank of the incised channel of the mapped drainage line, or where there is no defined bank, the edge of the channel, or
 - (b) the centre of the mapped drainage depression.
- (4) Forests NSW must ensure that all practicable measures are taken to minimise or mitigate any adverse effect on the environment of the works referred to in subclause (1), including complying with any conditions relating to minimising or mitigating any adverse impact of the works on the environment imposed by DECCW as part of an approval under subclause (2).
- (5) In particular, soil stabilisation measures must be undertaken in any area within the drainage feature protection zone that has been disturbed by those works. Those measures must be in place within 10 days of the completion of the works or, if the soil is saturated, as soon as practicable when the soil is no longer saturated.
- (6) To avoid doubt, a road, bush track or fire trail must not be constructed along the course of a drainage line or a mapped drainage depression. A road, bush track or fire trail that runs along the course of a drainage line or mapped drainage depression must not be re-opened or up-graded.

130. Road and track maintenance and use in drainage protection areas

A road, bush track or fire trail may not be used or maintained for the purpose of, or in the course of, forestry operations if it runs along a drainage line or a mapped drainage depression. To avoid doubt, this Part does not otherwise restrict or prohibit the use of, or the carrying out of maintenance on, roads, bush tracks and fire trails in drainage protection areas.

131. Bush tracks for certain on-going forest management operations

Despite any other provision of this Part, a bush track may be constructed, re-opened or up-graded in a drainage protection area for the purpose of an on-going forest management operation approved under clause 121 or 122, but only in accordance with the approval of DECCW under the relevant clause.

PART 2.6 – USE AND OPERATION OF HARVESTING MACHINERY IN DRAINAGE PROTECTION AREAS

132. Prohibition on use of harvesting machinery in drainage protection areas

- (1) A harvesting machine must not enter, and must not be used within, a drainage protection area, for the purpose of, or in the course of, a forestry operation except in accordance with this Part or clause 114 (3).
- (2) Nothing in this Part authorises a harvesting machine to travel along the course of a drainage line or a mapped drainage depression.

133. Special prohibition when soil saturated

- (1) Despite any other provision of this Chapter (other than subclause (2) and clause 134), a harvesting machine must not enter, or be used within, any part of a drainage protection area where the soil is saturated.
- (2) However, a harvesting machine may be removed from a part of a drainage protection area where the soil is saturated with the approval of a regional manager of Forests NSW. (Forests NSW must ensure a written record of the approval is made and kept.)
- (3) In removing a harvesting machine from an area of saturated soil under subclause (2), disturbance to the soil must be minimised and any disturbed area must be remediated as soon as practicable.

134. Use of harvesting machinery in relation to the provision of fire trails for emergency fire fighting

A harvesting machine may enter, and be used within, a drainage protection area for the purpose of the construction, re-opening, up-grading or maintenance of fire trails solely for the purposes of emergency fire-fighting. (To avoid doubt, any machine may be used within a drainage protection area in the course of emergency fire fighting.)

135. Operation of harvesting machinery to fell timber outside drainage feature protection zone

A harvesting machine may enter, and be used within, a drainage feature protection zone (other than a zone along an unmapped drainage line) to fell a tree whose base is outside the protection zone in a logging operation. However, the tree must be felled so that it falls away from the protection zone and the machine's wheels or tracks must not go any further than 5 metres from the boundary of the protection zone adjoining the net operational area for the logging operation.

136. Use and operation of harvesting machinery in a drainage feature protection zone for removal of timber and road works

- (1) A harvesting machine may enter, and be used within, a drainage feature protection zone:
 - (a) for the removal or extraction of timber in a logging operation (including the creation or re-opening of an extraction track) in accordance with Part 2.2, and
 - (b) for the purpose of constructing, re-opening or up-grading a road, bush track or fire trail (including a crossing over the drainage line or mapped drainage depression) in accordance with Part 2.5.
- (2) A harvesting machine may enter, and be used within, a drainage protection area for the purpose of felling, cutting or destroying trees to assist in the control of a pest, weed or disease in accordance with clause 121.

137. Use of roads, tracks etc within a drainage protection area

A harvesting machine:

- (a) may be used on a road, bush track or fire trail within a drainage protection area to carry out maintenance on that road, track or trail (or to carry out soil stabilisation measures, to re-shape beds and banks or to fulfil any other requirement of Chapter 5), and
- (b) may travel along a road, bush track or fire trail within a drainage protection area, in the course of, or for the purpose of, a forestry operation (such as gaining access to an area proposed to be logged),

but only if that road, track or trail was constructed in accordance with this approval or before the granting of this approval.

138. Special provisions regarding maintenance of dams (or tanks)

If a dam or tank, or its surrounding protection zone (as described in clause 244 (1) (g)), also lies (wholly or partially) within a drainage feature protection zone, then harvesting machinery (and any other machinery) may enter and be used within the drainage feature protection zone for the purpose of carrying out maintenance work on the dam or tank in accordance with clause 295.

CHAPTER 3: PROTECTION OF THREATENED SPECIES

(Terms of licence under the Threatened Species Conservation Act 1995)

PART 3.1 – GENERAL

Division 1 – Interpretation and application of Chapter

139. Application of Chapter

This Chapter sets out terms of the licence under the Threatened Species Conservation Act 1995 as described in clause 6. Accordingly, it applies to and in relation to the forestry operations described in that clause.

140. Definitions for Chapter

In this Chapter, “endangered ecological community”, “endangered population”, “species of animal or plant” and “threatened species” have the same meanings as in the Threatened Species Conservation Act 1995.

Note: “Species” of animal or plant is defined in the Threatened Species Conservation Act 1995 (as at the commencement of this approval) as including any defined sub-species and taxon below a sub-species and any recognisable variant of a sub-species or taxon.

141. Records of animals and plants

- (1) For the purposes of this Chapter, a record of a species of animal or plant is evidence that an individual or individuals of that species are (or have been) present at a particular location. That location is to be treated as the location of the record.
- (2) In the case of a species of animal, evidence that an individual of the species is or has been present at a particular location may comprise (but is not limited to) any of the following:
 - (a) an observation of a living or dead individual of that species at that location,
 - (b) discovery at that location of any part of an individual such as hair, skin, a bone or a tooth, or discovery of an egg of a kind laid by females of the species,
 - (c) any other indication that an individual of that species is present or has been present at that location, such as the distinctive call made by members of the species or distinctive tracks, diggings, incisions, scratchings, scats, remains in a raptor’s pellets or a predator’s scats, a nest, a roost or a den.
- (3) In the case of a species of plant, evidence that an individual of that species is present at a particular location may be an observation of the plant or discovery of any part of the plant such as its roots, stem, a branch, leaf, fruit, seeds or flower.
- (4) Evidence that an individual or individuals of a species are or have been present at a particular location is not a record of that species for the purposes of this Chapter unless it also:
 - (a) is identified on the Atlas of NSW Wildlife (being the database of animal and plant records maintained by DECCW) as a record that has been assigned a “source” value between 1 to 5 (inclusive), or

- (b) has been made or found by Forests NSW (including in a survey conducted on behalf of Forests NSW for the purposes of this approval), or
 - (c) is identified as a record on a database of animal and plant records that Forests NSW maintains.
- (5) Evidence is not a record for the purposes of this Chapter if:
- (a) in the case of a species of animal, it was made or found more than 20 years before the relevant time in the compartment or other tract of land concerned (that is, the time at which an operation takes place or is to take place in the compartment or tract), or
 - (b) it comprises the remains of an animal (such as a bone or tooth) that are established (for example, by applying reliable dating techniques) as being more than 20 years old, or
 - (c) DECCW has notified Forests NSW in writing that the evidence is unreliable (including that it cannot be relied on to establish or indicate the location of an individual or individuals of the species concerned), or
 - (d) in the case of evidence of a plant, a survey or surveys demonstrates to the satisfaction of DECCW that the species of plant is no longer present at the location of the evidence, or
 - (e) it is more than 10 years old, Forests NSW has reviewed it (on the basis that it may no longer be able to be relied on as indicating the continuing presence of individuals of the species in the area) and DECCW has notified Forests NSW in writing that it accepts that the evidence should no longer be treated as a record for the purposes of this Chapter.
- (6) If evidence (obtained by Forests NSW) of the presence of an individual or individuals of a species is contained in a raptor's pellets or a predator's scats, then Forests NSW is to determine, as best it can, the likely location of the individual or individuals. For the purpose of applying the requirements of this approval, the record of the species is taken to be at that location, rather than where the pellets or scats were found. (Forests NSW may consult DECCW when determining the likely location of the individual or individuals.)
- (7) If evidence (obtained by Forests NSW) of the presence of an individual or individuals of a species is the distinctive call (or a sound recording of it) for members of the species, then Forests NSW is to determine, as best it can, the likely location of the individual or individuals. For the purpose of applying the requirements of this approval, the record of the species is taken to be at that location, rather than where the call was heard or the sound recording was made.
- (8) Evidence may constitute a record of a species whether or not it was made or found before or during the term of this approval.

142. New records to be forwarded to DECCW

- (1) Forests NSW must advise DECCW of any record of a threatened species of animal or plant made or found in the Brigalow-Nandewar Region during the term of this approval ("new record") if Forests NSW considers it may be suitable for inclusion on the Atlas of NSW Wildlife (referred to in clause 141).
- (2) The advice is to be given within 3 months of the new record being made or found by Forests NSW or being entered on a database referred to in clause 141 (4) (c).

- (3) In addition, Forests NSW must give DECCW details of the record within 5 working days if requested to do so by DECCW.
- (4) Advice concerning new records is to be forwarded electronically to DECCW, to an office and in a manner notified by DECCW to Forests NSW.

143. Recovery plans for endangered species etc.

- (1) If implementation by Forests NSW of a measure specified in a recovery plan within the meaning of the Threatened Species Conservation Act 1995 would result in a breach of a provision of this Chapter, Forests NSW is to notify DECCW accordingly and advise DECCW (in writing) of whether it proposes to implement the specified measure in the recovery plan.
- (2) If Forests NSW has given DECCW that written notification and advice that it proposes to implement the specified measure in the recovery plan, it may take the necessary action to implement the measure. The relevant provision of this Chapter that would otherwise restrict or prohibit the taking of the action does not apply to the extent necessary to enable the measure in the recovery plan to be implemented.
- (3) Forests NSW is to create and keep a written record of any action it takes to implement a measure in a recovery plan under this clause.

Division 2 – Discovery of records of certain threatened species etc

144. Application of Division

- (1) This Division applies to the following species of animal and plant:
 - (a) any species of concern (as described in subclause (2)),
 - (b) any species that is presumed extinct (within the meaning of the Threatened Species Conservation Act 1995),
 - (c) any threatened species that is present in the Brigalow-Nandewar Region (or in the vicinity of that Region) and that is likely to be adversely affected by the carrying out of forestry operations in that Region,
 - (d) any proposed threatened species within the meaning of clause 29 (Threatened Species Conservation Act 1995 – proposed new listings) that is protected fauna or a protected native plant, while the requirements of that clause apply to it.
- (2) For the purposes of subclause (1) (a), species of concern are the following:
 - (a) black-throated finch (*Poephila cincta cincta*),
 - (b) black-striped wallaby (*Macropus dorsalis*),
 - (c) brush-tailed phascogale (*Phascogale tapoatafa*),
 - (d) grass owl (*Tyto capensis*),
 - (e) long-haired rat (*Rattus villosissimus*),
 - (f) *Notomys* spp.,
 - (g) pale-headed snake (*Hoplocephalus bitorquatus*),
 - (h) parma wallaby (*Macropus parma*),
 - (i) pied honeyeater (*Certhionyx variegatus*),
 - (j) powerful owl (*Ninox strenua*),
 - (k) red goshawk (*Erythrotriorchis radiatus*),
 - (l) rufous bettong (*Aepyprymnus rufescens*),
 - (m) Singleton mint bush (*Prostanthera cineolifera*),
 - (n) squatter pigeon (*Geophaps scripta*),

- (o) stripe-faced dunnart (*Sminthopsis macroura*),
- (p) zigzag velvet gecko (*Oedura rhombifer*).

(3) This Division does not apply to any species that is listed in Schedule 4.

145. Forestry operation prohibited without DECCW approval if records found

- (1) If Forests NSW, when compiling data relevant to a compartment or other tract of land under Division 2 of Part 3.2 or when carrying out a survey for a compartment or other tract of land under this Chapter, becomes aware of, finds or makes a record of a species to which this Division applies in the compartment or other tract of land or:
- (a) within 100 metres of the boundary of that compartment or tract, and
 - (b) in the case of a record of red goshawk, within 5 kilometres of the boundary of that compartment or tract,

Forests NSW must notify DECCW of the record.

- (2) Unless DECCW advises Forests NSW in writing that the evidence constituting the record is not reliable (and accordingly is no longer a record for the purposes of this Chapter), a forestry operation for which a site specific operational plan is required must not be commenced in the compartment or tract of land concerned without DECCW's written approval.
- (3) The forestry operation may be carried out only in accordance with any conditions to which DECCW's approval is subject, being conditions relating to measures to mitigate or minimise any adverse effect of the operation on the species concerned (including any requirements to carry out a survey for the species).

146. Forestry operation suspended if records found

- (1) Forests NSW must suspend a forestry operation for which a site specific operational plan is required, in a compartment or other tract of land, if it becomes aware, during that operation, of a record of a species to which this Division applies, or of the discovery or making of a new record of such a species, in that compartment or tract or:
- (a) within 100 metres of the boundary of the compartment or tract, and
 - (b) in the case of a record of red goshawk, within 5 kilometres of the boundary of the compartment or tract.
- (2) Forests NSW must notify DECCW of the record within 2 working days of becoming aware of it.
- (3) The forestry operation must not be recommenced in the compartment or other tract of land concerned without DECCW's written approval unless:
- (a) DECCW advises Forests NSW that the evidence constituting the record is not reliable (and accordingly is no longer a record for the purposes of this Chapter), or
 - (b) 7 working days have elapsed from the date on which Forests NSW notified DECCW of the record and Forests NSW has not received written advice from DECCW that DECCW does not approve the recommencement of the forestry operation.

- (4) The forestry operation, if recommenced, may be carried out only in accordance with any conditions to which DECCW's approval is subject, being conditions relating to measures to mitigate or minimise any adverse effect of the operation on the species concerned (including any requirements to carry out a survey for the species).

147. Compliance with this Division sufficient for compliance with clause 29

- (1) Forests NSW is taken to have complied with clause 29 (Threatened Species Conservation Act 1995 – proposed new listings) in its application to a species described in clause 144 (1) (d) in carrying out a forestry operation in a particular compartment or other tract of land if DECCW has approved the carrying out of the operation for the purposes of this Division and any conditions of that approval are complied with.
- (2) If the requirements of clause 29 (Threatened Species Conservation Act 1995 – proposed new listings) continue to apply in relation to a threatened species to which this Division also applies, Forests NSW is taken to have complied with that clause in its application to the species in carrying out a forestry operation in a particular compartment or other tract of land if DECCW has approved the carrying out of the operation for the purposes of this Division and any conditions of that approval are complied with.

Division 3 – Other general obligations in relation to protection and management of threatened species etc

148. Reporting potential sightings etc of animals and plants of threatened species

- (1) If, during a forestry operation in the Brigalow-Nandewar Region, a member of staff of Forests NSW, or the holder of a licence under the Forestry Act 1916 (including a contractor's licence or operator's licence) sees or otherwise observes, or discovers any other evidence of, an animal or plant that he or she knows belongs, or believes is likely to belong, to a threatened species or an endangered population, he or she must ensure that the sighting, observation or discovery is reported to the supervising forestry officer or other senior officer of Forests NSW.
- (2) The supervising forestry officer or other senior officer must ensure that the following information is recorded in relation to the sighting, observation or discovery, in so far as it is available:
- (a) name of species or population (or description if seen),
 - (b) number of individuals seen (if relevant),
 - (c) location of the individuals seen or otherwise observed or the location of any other evidence (by referring to its grid co-ordinates), accurate to within 100 metres (if the type of evidence permits this degree of accuracy),
 - (d) if the location is within a State forest, the name of the State forest and the compartment number,
 - (e) type of evidence (for example, a sighting, a heard call, scats or remains),
 - (f) date on which the sighting, observation or other discovery was made,
 - (g) name of person who made the sighting, observation or discovery (if the person consents),
 - (h) date on which the supervising forestry officer or other senior officer records the information set out in the preceding paragraphs,
 - (i) name of the supervising forestry officer or other senior officer.

- (3) A person is not required to report a sighting or observation of an animal or plant, or discovery of other evidence of an animal or plant, to the supervising forestry officer or other senior officer under subclause (1), if the person believes that the presence of the animal or plant, or the presence of the evidence of the animal or plant, has already been reported or is otherwise known to the supervising forestry officer or other senior officer. The supervising forestry officer or other senior officer is not required to record information about the sighting, observation or discovery in accordance with subclause (2) if the officer believes the information is already recorded.
- (4) A member of staff or holder of a licence under the *Forestry Act 1916* must also ensure that if, during a forestry operation in the Brigalow-Nandewar Region, he or she finds an ecological community that he or she knows or believes is an endangered ecological community, that discovery is reported to the supervising forestry officer or other senior officer of Forests NSW. However, a person is not required to report the discovery if he or she believes the presence of the community has already been reported or is otherwise known to the supervising forestry officer or other senior officer.

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1 March 2013
Clause 148(5)
numbering
corrected

- (5) The supervising forestry officer or other senior officer must ensure that the following information is recorded in relation to the discovery of the ecological community:
- (a) the name of the ecological community,
 - (b) the location of that part of the community found,
 - (c) if the location is within a State forest, the name of the State forest and the compartment number or numbers,
 - (d) the species characteristic of the community that appear to be present (if known),
 - (e) date on which the discovery was made,
 - (f) name of the person who made the discovery (if the person consents),
 - (g) date on which the supervising forestry officer or other senior officer records the information set out in the preceding paragraphs,
 - (h) name of the supervising forestry officer or other senior officer.

The supervising forestry officer or other senior officer is not required to record information about the discovery in accordance with this subclause if the officer believes the information is already recorded.

- (6) A reference to a threatened species in this clause includes a proposed threatened species referred to in clause 144 (1) (d).

149. Species management plans for certain threatened plant species

Forests NSW is to prepare a species management plan for each of the following threatened species of plant to assist in identifying, managing and controlling any adverse impacts of forestry operations on the species:

- (a) *Bertya* sp. A Cobar-Coolabah (also named *Bertya opponens*),
- (b) *Diuris tricolor*,
- (c) *Pomaderris queenslandica*,
- (d) *Pterostylis cobarensis*,
- (e) *Swainsona recta*,
- (f) *Swainsona sericea*.

150. Contents of species management plans

Each species management plan must:

- (a) specify the area of land to which it applies (“the planning area”), being an area of land comprising or within the Brigalow-Nandewar Region, and
- (b) describe the abundance and distribution of the species (to the extent known) in the planning area and within the broader region, and
- (c) summarise aspects of the species’ ecology that appear relevant to managing impacts of forestry operations on the species, identifying any relevant gaps in information, and
- (d) describe any known or potential adverse impacts of forestry operations (such as logging operations, burning operations and grazing) on the species, and
- (e) identify the issues (whether environmental or economic) relevant to managing or controlling any adverse impacts of forestry operations on the species, and
- (f) specify the management actions to be undertaken by Forests NSW to address the identified issues, including whether any forestry operations of a specified kind are to be prohibited or restricted in any areas and a timetable for undertaking management actions (where relevant), and
- (g) describe the potential impacts of the management actions, and
- (h) specify whether a monitoring program is to be undertaken for the species in order to acquire further information about the species or its response to forestry operations (including management actions) or disturbance events of specified kinds, and
- (i) specify whether any other research is to be undertaken by or on behalf of Forests NSW in relation to the species, and
- (j) provide for periodic reporting on implementation of the plan (to DECCW) and for review of the plan.

151. Timetable for preparation of species management plans

Forests NSW must prepare and forward species management plans for the plant species referred to in clause 149 to the Director-General of the Department of Environment, Climate Change and Water before the end of the 12 month period following the commencement of this approval.

Note: It is contemplated that if DECCW approves the contents of a species management plan, the IFOA will be amended to require the plan to be given effect to. DECCW and FNSW intend that the species management plans required will be finalised and approved within 12 months of the commencement of the IFOA.

152. Monitoring plans for plant species

Forests NSW is to prepare a monitoring plan for each of the following species of plants to provide information to assist in assessing whether the terms of this Chapter and Chapter 2 adequately protect the species from any adverse impacts of forestry operations:

- (a) *Acacia jucunda*,
- (b) *Monotaxis macrophylla*,
- (c) *Phebalium glandulosum subsp. eglandulosum*.

153. Contents of monitoring plans for plant species

Each monitoring plan for a plant species must:

- (a) specify the area of land to which it applies (“the planning area”), being an area of land comprising or within the Brigalow-Nandewar Region, and
- (b) describe the abundance and distribution of the species (to the extent known) in the planning area and within the broader region, and
- (c) summarise aspects of the species’ ecology that appear relevant to its response to forestry operations, identifying any relevant gaps in information, and

- (d) set out a hypothesis concerning responses of the species to forestry operations of specified kinds (such as logging operations, burning operations and grazing) including any adverse impacts on the species, and
- (e) describe a monitoring program or programs for the species to test any such hypothesis concerning responses to forestry operations, including the objectives of each program and how those objectives are to be met, and
- (f) outline how the carrying out of forestry operations may be modified or restricted in light of the results of the monitoring program or programs undertaken for the species, and
- (g) provide for periodic reporting on implementation of the plan (to DECCW) and for review of the plan.

154. Timetable for preparation of monitoring plans for plant species

Forests NSW must prepare and forward monitoring plans for the plant species referred to in clause 152 to the Director-General of the Department of Environment, Climate Change and Water before the end of the 12 month period following the commencement of this approval.

Note: It is contemplated that if DECCW approves the contents of a monitoring plan for a plant species, the IFOA will be amended to require the plan to be given effect to. DECCW and FNSW intend that the monitoring plans required will be finalised and approved within 12 months of the commencement of the IFOA.

155. Strategic monitoring and assessment program

Forests NSW is to develop and undertake a strategic monitoring and assessment program in the Brigalow-Nandewar Region:

- (a) to improve knowledge of the habitat requirements of threatened species within the Region, and
- (b) to monitor populations of native animals and plants within the Region and assess the extent to which any changes in population levels may be attributable to forest management and practice.

Forests NSW is to develop the strategic monitoring and assessment program in consultation with DECCW before the end of the 12 month period following the commencement of this approval. The program is to identify the threatened species to be targeted in the program and the sampling and survey methods to be adopted in relation to each of those species.

Note: Forests NSW is committed to undertaking landscape monitoring under the state-wide Natural Resources Monitoring, Evaluation and Reporting Strategy ("MER Strategy") developed by a number of State agencies to assist in evaluating progress towards the achievement of state-wide natural resource condition targets. The strategic monitoring and assessment program to be developed under this clause reflects FNSW's commitment under the MER Strategy.

156. Ground habitat protection

- (1) Forests NSW must endeavour to protect the ground habitat of native animals from the impact of forestry operations to the extent that the nature of those operations allows and to the extent that it is practicable to do so.
- (2) In this clause, "ground habitat" includes understorey vegetation, groundcover vegetation, thick leaf litter and fallen timber.

157. Special protection for *Monotaxis macrophylla*

- (1) A person must not knowingly destroy, or allowed to be destroyed, a plant that he or she knows, or has reason to believe, is a plant belonging to the species *Monotaxis macrophylla* in the course of, or for the purpose of, carrying out forestry operations.
- (2) Forests NSW must take such steps as are reasonably necessary to ensure that any plants of the species *Monotaxis macrophylla* are not destroyed in the course of, or for the purpose of, a forestry operation for which a site specific operational plan is required (particularly, a salvage logging operation following a wildfire).

158. Species management plan for *Tylophora linearis*

Forests NSW is to give effect to the species management plan for *Tylophora linearis* approved by DECCW (as advised by the Director of Resource and Conservation of the Department of Environment, Climate Change and Water on 11 November 2008), in so far as it imposes obligations on Forests NSW or restrictions on the carrying out of forestry operations for which site specific operational plans are required.

159. Monitoring plan for *Polygala linariifolia*

Forests NSW is to give effect to the monitoring plan for *Polygala linariifolia* approved by DECCW (as advised by the Director of Resource and Conservation of the Department of Environment, Climate Change and Water on 11 November 2008), in so far as it imposes obligations on Forests NSW or restrictions on the carrying out of forestry operations for which site specific operational plans are required.

160. Protection of endangered ecological communities generally

- (1) This clause applies to endangered ecological communities other than:
 - (a) White Box Yellow Box Blakely's Red Gum Woodland (as described in the final determination of the Scientific Committee under the *Threatened Species Conservation Act 1995* [Government Gazette of 15 March 2002, p.1648]), and
 - (b) Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penepplain, Nandewar and Brigalow Belt South Bioregions (as described in the final determination of the Scientific Committee under the *Threatened Species Conservation Act 1995* [Government Gazette of 27 April 2007, p. 2453]).
- (2) A fire trail must not be constructed, re-opened or upgraded on land on which an endangered ecological community is present unless:
 - (a) there is no practicable alternative route, and
 - (b) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager of Forests NSW has authorised the proposed works in writing and forwarded a copy of the report (and authorisation) to DECCW (before the works are commenced).
- (3) Forests NSW must ensure that all practicable measures are taken to minimise any adverse effect of the works on the environment.
- (4) This clause does not restrict:
 - (a) any emergency fire fighting acts within the meaning of the *Rural Fires Act 1997* (including the provision of a fire trail in an emergency), or

- (b) the use or maintenance of a fire trail solely in the course of, or for the purpose of, emergency fire fighting.

PART 3.2 – PLANT AND ANIMAL SURVEYS BEFORE COMMENCEMENT OF LOGGING AND ROAD WORKS

Division 1 – Key concepts, requirements and application of Part

161. Application of Part to logging operations and ancillary road construction

- (1) This Part applies to a forestry operation of either of the following kinds if a site specific operational plan is required to be prepared for it:
 - (a) a logging operation (other than a salvage logging operation following a wildfire within the meaning of Division 3 of Part 3.4),
 - (b) ancillary road construction.
- (2) Except where the context otherwise requires, a reference in this Part (including Schedule 5) to ancillary road construction is a reference only to ancillary road construction to which this Part applies that is not undertaken (or is not to be undertaken) in conjunction with a logging operation to which this Part also applies.
- (3) To avoid doubt, for the purposes of applying clause 162 (1) and the other requirements of this Part (including Schedule 5), a reference to the compartment or other tract of land in the case of ancillary road construction is a reference to the area of land comprising the footprint of the road or proposed road.

162. Compliance with Part before commencement of operation

- (1) A forestry operation to which this Part applies must not be commenced in a compartment or other tract of land unless:
 - (a) a search of records of animal and plant species has been carried out in relation to the compartment or other tract of land (but no more than 5 years before the operation commences in the compartment or tract), and a report of the results of the search has been prepared, in accordance with Division 2, and
 - (b) a traverse survey for the compartment or other tract of land has been carried out in accordance with Division 3 (but no more than 5 years before the operation commences in the compartment or tract), and
 - (c) each targeted animal survey required under Division 4 for the compartment or other tract of land has been carried out in accordance with the requirements of that Division (but no more than 5 years before the operation commences in the compartment or tract), and
 - (d) each targeted plant survey required under Division 4 for the compartment or other tract of land has been carried out (at any time after 30 June 2008), and
 - (e) a report of surveys carried out for the compartment or other tract of land has been prepared in accordance with Division 5 following compliance with Divisions 2, 3 and 4.

Special provisions for road works

- (2) This subclause applies if a logging operation is undertaken (or is to be undertaken) in conjunction with ancillary road construction and the compartment or other tract of land for the logging operation wholly contains the area of land on which the ancillary road construction is undertaken or is to be undertaken (at the same, or about the same,

time). In these circumstances, subclause (1) and the other requirements of this Part are to be applied as if the logging operation were the only operation being undertaken.

- (3) The surveys required by subclause (1) before ancillary road construction is commenced in a compartment or other tract of land (being the footprint of the road or proposed road) are taken to have been carried out if surveys that otherwise comply with the requirements of this Part have been carried out for an area of land that includes the footprint of the road or proposed road. It does not matter that the requirements of this Part in relation to surveys would be applied differently if carried out on the basis that the only proposed operation was ancillary road construction.

Purposive interpretation to be preferred over literal interpretation

- (4) If, in particular circumstances, the strict or literal application of provisions of this Part (including Schedule 5) leads to a manifestly unreasonable result, then Forests NSW is to instead interpret and apply the provisions so as to give effect to the purposes underlying this Part.

163. Surveys to be undertaken by experts

Forests NSW must ensure that each traverse survey and targeted animal or plant survey under this Part is carried out by a person or persons having the necessary skills and expertise to do so.

164. Data compilation to be provided to surveyors etc.

Forests NSW must ensure that the most recent report prepared under clause 166 relating to a compartment or other tract of land is provided to those persons responsible for planning any forestry operation in the compartment or other tract of land for which a site specific operational plan is required or involved in carrying out any survey under this Part or under Part 3.3.

Division 2 – Compilation of data for compartment or other tract of land (clause 162 (1) (a))

165. Data compilation

- (1) Forests NSW must search the Atlas of NSW Wildlife and other databases of records (and relevant written documents) held or maintained by Forests NSW, for the following records relevant to the compartment or other tract of land:
- (a) records of red goshawk, spotted-tailed quoll and regent honeyeater within the compartment or other tract of land and within 5 kilometres of it,
 - (b) records of flying-fox camps (as described in clause 249) and potential subterranean bat roosts that are species protection zones (as described in clause 248) within the compartment or other tract of land and within 2 kilometres of it,
 - (c) records of animals and plants of other threatened species not referred to in paragraph (a) or (b) (and any proposed threatened species referred to in clause 144 (1) (d)) within the compartment or other tract of land and within 2 kilometres of it.
- (2) Forests NSW is not required to search for records of any threatened species of animal or plant listed in Part 2 of Schedule 4 (Species adequately protected by general provisions).

166. Report of data found

- (1) A traverse survey under Division 3, and any targeted animal or plant survey required under Division 4, for the compartment or other tract of land, must not be carried out until Forests NSW has prepared a report of the results of its search for records of animals and plants (relevant to that compartment or other tract) under clause 165 that contains the following information:
 - (a) date of report and dates on which the search was carried out,
 - (b) location of the compartment or other tract of land for which the search was carried out (by including, if the location is within State forest, the State forest name and compartment number or numbers),
 - (c) name of person or persons who carried out the search,
 - (d) a list of all records found and a summary of each record.
- (2) The summary of each record required under subclause (1) must include the following, if available:
 - (a) name of species to which the record relates,
 - (b) grid co-ordinates of the record's location,
 - (c) date on which the record was made or found,
 - (d) type of record (such as a sighting, a heard call, road kill, hair or scats),
 - (e) name of person who made or found the record,
 - (f) source of record (for example, Atlas of NSW Wildlife).

Division 3 – Compartment traverse survey (clause 162 (1) (b))

167. Traverse survey - requirements

For the purposes of clause 162 (1) (b), a traverse survey for the compartment or other tract of land must be planned and carried out, and the results of the survey recorded, in accordance with this Division.

168. Planning traverse route

- (1) The route of the traverse survey for the compartment or other tract of land must:
 - (a) cover at least the distance calculated at the rate of 1.2 kilometres per 100 hectares of the compartment or other tract of land, and
 - (b) pass through the full range of forest types and environments known, at the time of planning the route, to be present in the compartment or other tract of land.
- (2) The route of the traverse survey must extend beyond the boundary of the compartment or other tract of land into any area within 100 metres of the boundary if that area:
 - (a) is known to contain a forest type or a type of environment not present in the compartment or other tract of land itself, and
 - (b) is located within State forest.
- (3) Subclauses (1) and (2) do not apply to ancillary road construction. In that case, the route of the traverse survey is the route of the road or proposed road.

169. Mapping traverse route

The route of the traverse survey for the compartment or other tract of land must be mapped at a scale of at least 1:50 000 before the traverse survey is commenced. The map must also indicate the forest types and types of environments known to be present (at the time of preparation of the map) within the compartment or tract and within 100 metres of the compartment or tract (if located within State forest).

170. Traverse survey – field methodology

- (1) The person or persons conducting the traverse survey must search for the following along the traverse route:
 - (a) wetlands, areas of heath, areas of rocky outcrops or cliffs, dams and tanks,
 - (b) nests and roosts of birds of the species referred to in clause 246,
 - (c) bat tree roosts as referred to in clause 247,
 - (d) potential subterranean bat roosts that are species protection zones under clause 248,
 - (e) flying-fox camps (as described in clause 249 (2)),
 - (f) evidence of koalas,
 - (g) dens (whether permanent or maternal) and latrine sites of the spotted-tailed quoll,
 - (h) dens of the squirrel glider,
 - (i) any individuals of a species of plant referred to in clause 149, 152, 258 or 259,
 - (j) evidence of Box Gum Woodland EEC (as defined in clause 260) or Inland Grey Box Woodland EEC (as defined in clause 261),
 - (k) glider sap feed trees within the meaning of clause 203,
 - (l) trees containing raptor nests,
 - (m) nests (other than mud nests) of any species of bird that is protected fauna,
 - (n) evidence of species of concern within the meaning of clause 144,
 - (o) endangered ecological communities (in addition to Box Gum Woodland EEC and Inland Grey Box Woodland EEC).
- (2) If any of the features or other things referred to in subclause (1) are found in the traverse survey, they must be marked in the field, where it is practicable to do so.
- (3) Despite subclauses (1) and (2), it is not necessary to search for, or mark, glider sap feed trees, trees containing raptor nests and bird nests (other than those referred to in clause 246) more than 10 metres from the compartment or other tract of land.
- (4) The person or persons conducting the traverse survey are not required to search for any feature or other thing referred to in subclause (1), at a particular location along the traverse route, if it is not possible for the feature or other thing to be present in the type of forest or environment at that location.
- (5) The traverse route must be searched for at least the amount of time calculated at the rate of 1 hour per 100 hectares of the compartment or other tract of land. However, in the case of ancillary road construction, the traverse route (being the road or proposed road) must be searched for at least the amount of time calculated at the rate of 1 hour per 1.2 kilometres of the route.
- (6) If a forest type or type of environment that was not known to be present in the compartment or other tract of land (or in any area within 100 metres of the compartment or tract) at the time the traverse route was planned (as referred to in clause 168 (1) (b)) is encountered during the traverse survey, then a portion of the time calculated under subclause (5) is to be spent in searching that forest type or environment for the features or other things referred to in subclause (1).

- (7) If any person conducting the traverse survey sees, hears or finds other evidence of any threatened species (or an endangered population) not referred to in subclause (1), he or she must nevertheless ensure that details of the observation or evidence, as described in clause 171 (2), are recorded so that they can be incorporated in the report under clause 171.

171. Traverse survey report

- (1) Forests NSW must ensure that the following information concerning the traverse survey and its results is recorded:
- (a) location of the area in which the traverse survey was conducted (by including, if within State forest, the name of the State forest and the compartment number or numbers),
 - (b) date on which the traverse survey was conducted,
 - (c) name of person or persons conducting the survey,
 - (d) the traverse route (by marking it on a map),
 - (e) length of the traverse route,
 - (f) the time spent in the field conducting the traverse survey (but not including any time spent travelling to and from the survey location),
 - (g) details of all features or other things referred to in clause 170 (1) that were found in the traverse survey,
 - (h) details of any evidence of a threatened species (or an endangered population) of plant or animal (in addition to those included under paragraph (g)) that was found in the traverse survey.
- (2) The details required under subclause (1) (g) and (h) must include the following:
- (a) the location of the feature or other thing or evidence (as the case may be), by reference to its grid co-ordinates and accurate to within 100 metres (if possible),
 - (b) in the case of evidence of a threatened species (or an endangered population) of plant or animal, the name of the species (or population) and the type of evidence (for example, sighting, heard call or scats),
 - (c) in the case of evidence of an endangered ecological community, the name of the community and the species characteristic of the community that appear to be present.

Division 4 – Targeted surveys for animal and plant species (clause 162 (1) (c))

172. Key concepts and definitions for Division

- (1) In this Division:

“known habitat” means:

- (a) in relation to the spotted-tailed quoll or regent honeyeater, any area within 5 kilometres of a record of the spotted-tailed quoll or regent honeyeater respectively, and
- (b) in relation to any other species listed in the table to clause 173 (1), any area within 2 kilometres of a record of that species;

“targeted nocturnal call playback survey for the compartment or other tract of land” means a survey or surveys carried out in relation to the compartment or other tract of land that complies (or cumulatively comply) with the requirements set out in Part 2 of Schedule 5;

“targeted regent honeyeater survey for the compartment or other tract of land” means a survey or surveys carried out in relation to the compartment or other tract of land that complies (or cumulatively comply) with the requirements set out in Part 1 of Schedule 5;

“targeted spotlight survey for the compartment or other tract of land” means a survey or surveys carried out in relation to the compartment or other tract of land that complies (or cumulatively comply) with the requirements set out in Part 3 of Schedule 5;

“targeted survey”, in relation to an animal species, means a targeted regent honeyeater survey, targeted nocturnal call playback survey, targeted spotlight survey and a targeted track and scat survey, as described in Schedule 5; and

“targeted track and scat survey for the compartment or other tract of land” means a survey or surveys carried out in relation to the compartment or other tract of land that complies (or cumulatively comply) with the requirements set out in Part 4 of Schedule 5.

- (2) For the purposes of this Division, a survey is reliable, in relation to an animal species, if the survey was equal to or better than a targeted survey required for the species under this Part, having regard to the methodology used, sampling intensity, distribution and location of areas sampled and the season in which, and the weather conditions under which, the survey was carried out.
- (3) In this Division, a reference to a survey (other than a targeted survey) that has been carried out, in relation to an animal species, for the compartment or other tract of land is a reference to a survey that, or surveys that cumulatively, covered at least the same extent of land within the compartment or other tract (and adjoining area) as a targeted survey of the kind that would (but for clause 173 (2) or (3)) be required for the compartment or other tract of land in relation to that species before commencing the forestry operation concerned in the compartment or tract.

Accordingly, a survey for the compartment or other tract of land is a survey that:

- (a) has been carried out on at least the same number of sites within the compartment or other tract of land (including land within 100 metres of that compartment or tract) on which the relevant targeted survey procedure would (but for clause 173 (2) or (3)) be required to be carried out under this Part before commencing the forestry operation in the compartment or tract (but only if the sites are of the same or greater size than that required under this Part), or
 - (b) involved searching along transects within the compartment or other tract of land (and extending 100 metres beyond it) having a total length at least equal to the total length of transects that would (but for clause 173 (2) or (3)) be required to be searched under this Part before commencing the forestry operation.
- (4) In this Division, a reference to a survey that has been carried out, in relation to an animal species, for the area of land within 2 kilometres of the compartment or other tract of land is a reference to a survey that, or surveys that cumulatively, covered at least the same extent of land within that surrounding 2 kilometre wide area, as a targeted survey of the kind that would (but for clause 173 (4)) be required for the compartment or other tract of land in relation to that species before commencing the forestry operation concerned.

Accordingly, a survey for the surrounding 2 kilometre wide area of land is a survey that:

- (a) has been carried out on at least the same number of sites within that surrounding area of land on which the relevant targeted survey procedure would (but for

clause 173 (4)) be required to be carried out under this Part before commencing the forestry operation concerned in the compartment or other tract of land (but only if the sites are of the same or greater size than that required under this Part), or

- (b) involved searching along transects within that surrounding area of land having a total length at least equal to the total length of transects that would (but for clause 173 (4)) be required to be searched under this Part before commencing the forestry operation concerned in the compartment or other tract of land.
- (5) In this Division, a reference to a method of detecting a species that is required to be used in a targeted survey is a reference to the following:
- (a) in the case of a targeted regent honeyeater survey, seeing and listening for calls of the regent honeyeater,
 - (b) in the case of a targeted call playback survey, playing recordings of the call of the species concerned and listening for the species' call in response,
 - (c) in the case of a targeted spotlight survey, using a spotlight to search for the species concerned,
 - (d) in the case of a targeted track and scat survey, searching for scats and tracks.

173. Targeted surveys for animal species – when are they required?

- (1) Subject to subclauses (2), (3), (4) and (5), a targeted survey for the compartment or other tract of land of the kind indicated in column 1 of the following table (“the table”) is required for each animal species specified next to it in column 2 of that table if known habitat of the species is present in the compartment or other tract of land or is present in any area within 100 metres of the compartment or other tract.

Column 1 Survey	Column 2 Species of animal
Targeted regent honeyeater survey	Regent honeyeater
Targeted nocturnal call playback survey	Bush stone-curlew, powerful owl and squirrel glider
Targeted spotlight survey	Black-striped wallaby, pale-headed snake, rufous bettong and squirrel glider
Targeted track and scat survey	Black-striped wallaby, brush-tailed phascogale, rufous bettong and spotted-tailed quoll

- (2) A targeted survey of a kind specified in the table is not required in relation to an animal species if another reliable survey, using the same method of detecting the species as that required to be used in the targeted survey, was carried out, in relation to that species, for the compartment or other tract of land within the 5 years preceding the operation.
- (3) A targeted survey of a kind specified in the table is also not required in relation to an animal species if a targeted survey of that kind, or another reliable survey using the same method of detecting the species as that required to be used in the targeted survey, was carried out, in relation to that species, for the compartment or other tract of land within the 10 years preceding the forestry operation and:
- (a) the sites on which the survey was conducted, or the transects that were searched, were located within the species' known habitat or within the most suitable habitat for the species, and
 - (b) no record of the species was made or found in that survey, and

- (c) no record of the species has been made or found subsequently within the compartment or other tract of land.

(A reference in this subclause to the species' known habitat is a reference to the species' known habitat as at the time Forests NSW searches for records of that species for the purposes of clause 165.)

- (4) A targeted survey of a kind specified in the table is also not required in relation to an animal species if all of the following conditions are met:
 - (a) no record of the species has been made or found within the compartment or other tract of land within the 10 years preceding the forestry operation (whether or not it has been surveyed),
 - (b) a targeted survey of the same kind in relation to the species or another reliable survey using the same method of detecting the species as that required to be used in the targeted survey, was carried out, within the 10 years preceding the forestry operation, for the area of land within 2 kilometres of the compartment or other tract of land and:
 - (i) the sites on which the survey was conducted, or the transects that were searched, were located within the species' known habitat or within the most suitable habitat for the species (or both), and
 - (ii) that known habitat or most suitable habitat is similar to habitat within the compartment or other tract of land, and
 - (c) no record of the species was made in the survey referred to in paragraph (b), and no record of the species has been made or found subsequently in any area within 2 kilometres of the compartment or other tract of land.

(A reference in this subclause to the species' known habitat is a reference to the species' known habitat as at the time Forests NSW searches for records of that species for the purposes of clause 165.)

- (5) A targeted track and scat survey is not required in relation to any species of animal in the case of ancillary road construction.

174. Targeted spotlight survey – special provision

Despite clause 173, if a targeted spotlight survey is required for any species under that clause, then all the species identified in the relevant row of column 2 of the table set out in the clause must be searched for in the survey, even though a species may not have any known habitat within the compartment or other tract of land (or in its vicinity) and even though a targeted survey or other reliable survey may have been carried out in relation to the species (as referred to in clause 173 (2), (3) or (4)).

175. Reduced survey effort in certain circumstances

- (1) Despite any other requirement of this Part, if a targeted survey of a particular kind in relation to an animal species, or another reliable survey using the same method of detecting the species as that required to be used in the targeted survey, was carried out for part of the compartment or other tract of land, then a targeted survey of that kind needs to be carried out only for the remainder of the compartment or tract in relation to that species.

Accordingly, the number of sites or the length of the transects required (under Schedule 5) for the targeted survey in the remainder of the compartment or other tract of land is to be calculated on the basis of known habitat for the species within that remaining part.

- (2) However, subclause (1) may be relied on only if the previous survey referred to was carried out within the 10 years preceding the forestry operation and:
- (a) the sites on which the survey was conducted, or the transects that were searched, were located within the species' known habitat or within the most suitable habitat for the species, and
 - (b) no record of the species was made or found in that survey, and
 - (c) no record of the species has been made or found subsequently within the area surveyed.

176. Report to be prepared of each targeted survey for animal species

Forests NSW must ensure that a report of each targeted survey for animal species (carried out under Part 1, 2, 3 or 4 of Schedule 5) that complies with the requirements of Part 5 of Schedule 5 is completed during or following the survey.

177. Targeted surveys for plant species – when are they required?

- (1) Subject to subclause (2), a targeted survey for each species of plant specified in column 1 of the following table is required for the compartment or other tract of land if it is within a State forest specified next to the species' name in column 2 of the table.

Column 1 Plant species	Column 2 State forest
Acacia jucunda	Bebo, Yetman
Cadellia pentastylis	Black Jack, Strathmore, Warialda
Homoranthus darwinioides	Boyben
Indigofera efoliata	Boyben
Phebalium glandulosum subsp. eglandulosum	Severn
Platyzoma microphyllum	Bebo, Yetman
Zieria ingramii	Boyben

- (2) A targeted survey for a species of plant must comply with the requirements of Part 6 of Schedule 5. Forests NSW must ensure that a report of the survey that complies with the requirements of that Part is completed during or following the survey.
- (3) A targeted survey for a species of plant is taken to have been carried out for the compartment or other tract of land if a survey for that species (that complies with the requirements set out in Part 6 of Schedule 5, including the requirements relating to reports) has been carried out since 30 June 2008 in the State forest containing the compartment or other tract of land, whether or not a survey transect passed through that compartment or tract.

178. Evidence of threatened species and endangered populations to be recorded

Any person involved in carrying out a targeted survey for animals or plants under this Division who sees, hears or finds other evidence of any animal or plant of a threatened species, species of bat or flying-fox, or an endangered population, is to ensure that details of the observation or other evidence, as described in Part 5 or Part 6 of Schedule 5 (as the

case may require) is recorded, so that it can be incorporated in the report under clause 176 or 177, respectively.

Division 5 – Survey reports for compartment (clause 162 (1) (e))

179. Report of data and surveys for compartment

- (1) Forests NSW must prepare a report for the compartment or other tract of land that includes the following:
 - (a) the report of the results of its search for records of animal and plant species prepared under clause 166,
 - (b) the information relating to, and the results of, the traverse survey for the compartment or other tract of land recorded under clause 171,
 - (c) a list of all threatened species referred to in the table to clause 173 (1) for which known habitat (within the meaning of Division 4) is present within the compartment or other tract of land or within 100 metres of the compartment or other tract of land,
 - (d) details of each targeted or other reliable survey referred to in clause 173 (2), (3) or (4) for or in the vicinity of the compartment or other tract of land (being a survey that exempts Forests NSW from the requirement to carry out another survey for a particular species),
 - (e) each report of a targeted animal or plant survey carried out for the compartment or other tract of land, prepared for the purpose of clause 176 or clause 177 (2),
 - (f) all data sheets used in the field for the purpose of a traverse survey under Division 3 and any targeted animal or plant survey under Division 4,
 - (g) a map of the compartment or other tract of land indicating the location of records of threatened species, species of bat, flying-fox camps or endangered populations, and the location of evidence of any endangered ecological community, that is found or made during a survey for the compartment or tract under this Part.
- (2) The details of each reliable survey required under subclause (1) (d) are to include (as far as are relevant to the particular survey) the methodology used, sampling intensity, distribution and location of areas sampled and the season in which, and the weather conditions under which, the survey was carried out.
- (3) Forests NSW must ensure that information in the report prepared under subclause (1) relating to the location of each record of a threatened species, or species of bat, that is specified in Part 1 of Schedule 4 is given to any person involved in carrying out a survey under Part 3.3. Information in the report relating to the location of a flying-fox camp or location of evidence of an endangered ecological community must also be given to the person.

PART 3.3 – PLANNING AND OTHER PREPARATION FOR FORESTRY OPERATIONS

Division 1 – Planning forestry operations to comply with TSCL

180. Requirements of Division additional to requirements in Chapter 1

Nothing in this Division limits the operation of Part 1.3.

181. Site specific operational plan to address requirements of this Chapter

- (1) The site specific operational plan for a forestry operation in a compartment or other tract of land must address how the provisions of this Chapter that, at the time of preparation of the plan, appear to apply to the operation will be applied to, or be given effect to in, the operation.
- (2) A site specific operational plan for a salvage logging operation following a wildfire (within the meaning of Division 3 of Part 3.4) must specify when the wildfire occurred.

182. Operational map for forestry operation

- (1) The operational map for a forestry operation is to indicate the location of any of the following features or other things known, at the time of preparation of the map, to be present within the compartment or other tract of land in which the forestry operation is to be undertaken:
 - (a) any record of a species to which a species protection zone relates (and the boundaries of any such protection zone),
 - (b) any flying-fox camp (and the boundaries of any species protection zone surrounding it) and potential subterranean bat roost that is a species protection zone,
 - (c) any tree in which a regent honeyeater has been seen feeding,
 - (d) glider sap feed trees within the meaning of clause 203,
 - (e) trees containing raptor nests.
- (2) The operational map for a salvage logging operation following a wildfire (within the meaning of Division 3 of Part 3.4) must identify the area devastated or damaged by the wildfire in which it is proposed to carry out the salvage logging operation.

Division 2 – Compartment surveys and marking-up of features and boundaries

183. Exclusion of salvage logging operations from Division

This Division does not apply to, or in relation to, any salvage logging operation following a wildfire (within the meaning of Division 3 of Part 3.4).

184. “Compartment mark-up survey” for nests, roosts, dens, scats etc.

- (1) This clause applies to a forestry operation of any of the following kinds if a site specific operational plan is required for the operation and has been prepared:
 - (a) a logging operation,
 - (b) harvesting of broombush,
 - (c) a non-commercial thinning operation,
 - (d) ancillary road construction.

Note: At the end of a survey carried out as required by this clause, a copy of the operational map (which is part of the site specific operational plan for the forestry operation) should be able to be used to identify the net operational area for the operation.

Clause 63 describes the forestry operations for which a site specific operational plan is required.

- (2) A forestry operation to which this clause applies must not be undertaken on any part of the compartment or other tract of land unless:

- (a) that part, and any area within about 200 metres of that part (including land outside the compartment or other tract of land, if accessible), have first been surveyed in accordance with the requirements of this clause and clauses 185 to 187 (inclusive), and
 - (b) any necessary notations (as a result of the survey) have been made on a copy of the site specific operational plan in accordance with clauses 185 (3) and (4), 186 (6) and 187 (2).
- (3) The survey must be carried out in a part of the compartment or tract as close as practicable to the commencement of the operation concerned in the compartment or other tract of land, or in stages as the operation progresses through the compartment or tract.

Note: A traverse survey under Part 3.2 must be completed before an operation is physically commenced in the compartment or other tract. It may be carried out up to 5 years before the operation is so commenced.

185. Search for nests, dens, roosts, plants etc.

- (1) The survey required by clause 184 must include a thorough search for the following:
- (a) nests and roosts of birds of the species referred to in clause 246,
 - (b) bat tree roosts as referred to in clause 247,
 - (c) potential subterranean bat roosts that are species protection zones under clause 248,
 - (d) flying-fox camps (as described in clause 249 (2)),
 - (e) dens (whether permanent or maternal) and latrine sites of the spotted-tailed quoll,
 - (f) any individuals of a species of plant referred to in clause 149, 152, 258 or 259,
 - (g) evidence of Box Gum Woodland EEC (as defined in clause 260) or Inland Grey Box Woodland EEC (as defined in clause 261),
 - (h) key regent honeyeater habitat trees within the meaning of clause 201,
 - (i) glider sap feed trees within the meaning of clause 203,
 - (j) trees containing raptor nests,
 - (k) nests (other than mud nests) of any species of bird that is protected fauna,
 - (l) evidence of species of concern within the meaning of clause 144,
 - (m) endangered ecological communities (in addition to Box Gum Woodland EEC and Inland Grey Box Woodland EEC).
- (2) The survey required by clause 184 must also include a thorough search for the following in the case of a logging or non-commercial thinning operation (to which Part 3.4 applies):
- (a) shrubs and trees of *Allocasuarina* spp. (other than bull oak) or *Casuarina* spp. for evidence that glossy black-cockatoos have been feeding on them,
 - (b) stands of *Allocasuarina* (other than bull oak) or *Casuarina* spp.,
 - (c) stands of flowering or fruiting *Banksia* spp.,
 - (d) stands of *Xanthorrhoea* spp.,
 - (e) stands of *Grevillea* spp. and stands of *Eremophila* spp. (other than *E. mitchelli*),
 - (f) if the operation is within the barking owl nest and roost zone (within the meaning of clause 254), wilga trees that meet the description in clause 209 (1) (f) (ii).
- (3) If any of the features or other things referred to in subclause (1) or subclause (2) are found, they must be marked in the field, where it is practicable to do so. A copy of the site specific operational plan for the forestry operation is also to be annotated to

indicate the presence and location of the feature or other thing, if not already referred to in the plan.

- (4) Despite subclauses (1), (2) and (3), none of the following is required to be searched for, or marked, more than 10 metres beyond the compartment or other tract of land in which the forestry operation is carried out:
 - (a) key regent honeyeater habitat trees within the meaning of clause 201,
 - (b) glider sap feed trees within the meaning of clause 203,
 - (c) trees containing raptor nests,
 - (d) bird nests (other than those referred to in clause 246),
 - (e) trees or shrubs, or stands of trees or shrubs, referred to in subclause (2).
- (5) If a new record of an animal or plant of a threatened species (in addition to any species referred to in subclause (1)) is made or found during the survey, the location of the record and any other information necessary to give effect to the provisions of this Chapter in relation to the record are to be noted on a copy of the site specific operational plan.

186. Search for koalas and koala high use areas

- (1) The survey required by clause 184 must include a search to establish whether koalas are present, or have been recently present, in the net mapped operation area for the forestry operation and the extent of their presence, in accordance with this clause.
- (2) Koalas are to be looked for in white cypress trees and Eucalypt trees within the net mapped operation area. The ground under the canopy of such trees must be searched for koala scats.
- (3) If a koala is found in a tree, or koala scats are found under a tree, then the ground under the canopy of that tree, and under the canopies of 10 other trees in the vicinity of that first tree, must be thoroughly searched for koala scats. The 10 other trees may be of any species, but each must have a dbhob of 200 mm or more. They must be the 10 trees with such a dbhob that are located closest to that first tree in which the koala is found or under which koala scats are found. (It does not matter if one or more of the 10 trees is outside the net mapped operation area.)
- (4) If koala scats are found under three or more of the 10 trees searched, the area containing those three or more trees (as well as the tree that triggered the thorough search) is a koala high use area.
- (5) The thorough search described in subclause (3) must also be carried out in the vicinity of each of the three or more trees in a koala high use area under which koala scats are found and that is within the net mapped operation area. (Any overlapping koala high use areas may be treated as a single koala high use area.)
- (6) The location of any koala high use area, together with the location of any tree outside such an area in which a koala is found or under which 40 or more koala scats are found (or both), are to be indicated on a copy of the operational map for the forestry operation.
- (7) To avoid doubt:
 - (a) even if a thorough search under subclause (3) does not result in the discovery of a koala high use area, a further thorough search as described in subclause (3)

- must be carried out in the vicinity of any tree in the area in which a koala is found, or under which koala scats are found, and
- (b) the general obligation to look for koalas in a part of the net mapped operation area under subclause (2) is not affected by a requirement to carry out a thorough search for koala scats in that part also.
- (8) In this clause, a reference to Eucalypt trees includes a reference to trees of species belonging to either of the genera *Angophora* or *Corymbia*.

187. Search for landscape features

- (1) The survey required by clause 184 must also include a thorough search for any of the following landscape features that may be present in the compartment or other tract of land (in addition to those already identified in the site specific operational plan for the operation):
- (a) an area of rocky outcrops or cliffs,
 - (b) an area of heath of more than 0.2 hectares,
 - (c) a wetland,
 - (d) an unmapped drainage line.
- (2) If any of the landscape features referred to in subclause (1) are found, the location of the feature, and any other information necessary to give effect to the provisions of this Chapter or Chapter 2, are to be noted on a copy of the site specific operational plan for the operation.

188. Expertise to carry out survey

Forests NSW must ensure that the survey required by clause 184 is carried out by persons who have the necessary expertise or skills to search for and identify the features or other things listed in clauses 185, 186 and 187.

189. “Marking-up” of boundaries of certain environmentally significant areas and wetlands

- (1) This clause applies to a forestry operation of any of the following kinds if a site specific operational plan is required for the operation:
- (a) a logging operation,
 - (b) harvesting of broombush,
 - (c) a non-commercial thinning operation and any other on-going forest management operation that involves felling or destruction of trees (including a burning operation),
 - (d) ancillary road construction.
- (2) Forests NSW must ensure, as far as practicable, that a forestry operation to which this clause applies does not come within 50 metres of any part of a boundary of an area of land that is protected in relation to that operation (as described in subclause (4)) unless that part of the boundary has been first “marked up”.
- (3) “Marking-up”, for the purposes of this clause, may be done by physically marking trees or other features in the field, or by using the Geographic Information System and the Global Positioning System, or any other device that can accurately identify or locate the boundary (or relevant part of the boundary) of the area of land concerned in the field.

- (4) For the purposes of this clause, an environmentally significant area, and a wetland and its surrounding protection zone (as described in Chapter 2), is an area of land that is protected in relation to a particular forestry operation if the forestry operation is prohibited in the area.
- (5) Accordingly, an environmentally significant area is not an area of land that is protected, for example, in relation to any of the following forestry operations if the operation is carried out within the area with the authorisation of a regional manager of Forests NSW or of DECCW (or both) under Part 3.7:
 - (a) weed, pest or disease control involving the felling of trees,
 - (b) thinning of dense cypress re-growth,
 - (c) a burning operation,
 - (d) the construction, re-opening or up-grading of a road, bush track or fire trail,

and no part of the boundary of such an area needs to be “marked-up” under this clause before or during the operation within the area.

- (6) However, a logging operation is prohibited in an environmentally significant area for the purposes of this clause even though timber cut in the operation may be removed via a route through the area with the authorisation of a regional manager of Forests NSW or approval of DECCW (or both).
- (7) The boundary of an environmentally significant area (and a wetland and its surrounding protection zone) is required to be “marked-up” only if the presence of the area in the compartment or other tract of land concerned is known.

190. “Marking-up” required only if boundary adjoins net operational area

- (1) Despite clause 189, part of a boundary of an area of land that is protected in relation to a forestry operation under that clause is required to be “marked-up” only if that part adjoins the net operational area for the forestry operation.
- (2) The following are examples of circumstances where the entire boundary or boundaries of an area may not be required to be marked up (because of subclause (1)):
 - (a) an environmentally significant area overlaps or intersects with another environmentally significant area,
 - (b) an environmentally significant area has two boundaries, one of which is also the boundary of another environmentally significant area (for example, a protection zone surrounding an area of heath, the inner boundary of which is also the boundary of the area of heath).
- (3) Subclause (1) does not exempt part of a boundary of an environmentally significant area (or a wetland or its surrounding protection zone) from the requirement to be “marked-up” if that part of the boundary runs through or is shared with another environmentally significant area in which an aspect of the operation concerned (such as timber removal in a logging operation) is to be carried out.

191. “Marking-up” - boundary to be determined in field

For the purposes of “marking-up” a boundary of an area, the location of the boundary of the area is to be determined in the field, if possible, by reference to the feature or other thing that constitutes or is protected by the area, such as a dam, area of heath and potential

subterranean bat roost, rather than solely by reference to its location as shown on the operational map for the forestry operation (or the FMZ layer).

192. “Marking-up” not required if impenetrable vegetation

Despite clause 189, a part of a boundary of an area of land that is protected for the purposes of that clause is not required to be “marked-up” if it is inaccessible because of thick and impenetrable vegetation or other landscape features.

**PART 3.4 – CONDITIONS RELATING TO TREE RETENTION IN
CARRYING OUT LOGGING OPERATIONS AND OTHER
FORESTRY OPERATIONS**

Division 1 – Interpretation and application of Part

193. Definitions and interpretation of Part

(1) In this Part:

“fell”, in relation to a tree, includes cut, remove and destroy; and

“road works” means the construction, re-opening, up-grading or maintenance of a road, bush track or fire trail to enable or assist in the carrying out of forestry operations.

(2) To avoid doubt, “logging operation”, in this Part, includes the removal of timber (including the creation of an extraction track) and the construction and up-grading of a log dump.

(3) A reference in this Part to the dominance class of a tree (including by use of words such as “dominant”, “co-dominant”, “sub-dominant” and “suppressed”) is a reference to the crown dominance of the tree within its stand of trees as determined in accordance with the principles of classification described in RG Florence, Ecology and Silviculture of Eucalypt Forests, CSIRO Publishing, 2004.

(4) In this Part:

- (a) a reference to the hectare of land surrounding a stump of a tree is a reference to the circular area of land centred on the stump of 10, 000 square metres, and
- (b) a reference to the auditing methodology is a reference to the methodology for auditing compliance with the requirements of this Part for the retention of trees as in force from time to time under clause 233 (Auditing compliance with this Part – methodology to be developed).

194. Selection of trees for retention and felling may be done progressively

(1) Nothing in this Part requires trees to be selected for felling or for retention, for the purpose of clause 197 (2), 198, 199, 200 or 216 across the whole compartment or other tract of land in which the relevant logging or non-commercial thinning operation is to be undertaken before that operation is commenced in the compartment or tract. Accordingly, trees may be selected for retention in relation to each tree that is or is proposed to be felled, as the operation progresses through the compartment or other tract of land.

- (2) In particular, if a tree has not been selected for retention, in the course of an operation, to meet the requirements of this Part, it is not necessary to consider, when determining whether to select the tree for felling, if the tree might (if it were not felled) be required to be selected for retention to meet the relevant requirements of this Part for the retention of trees in any hectare surrounding another tree that may be selected for felling at a later stage in the operation.

195. Calculation of average number of trees in a hectare around a stump

- (1) This clause applies to the calculation of the average number of trees (or basal area in the case of western ironbark trees) remaining in a hectare surrounding a stump of a tree felled in an operation, for the purposes of clauses 197 (4), 198 (3), 199 (7), 200 (3) and 216 (3).
- (2) The number of trees (or their total basal area) remaining at the completion of an operation, in a particular hectare of land surrounding the stump of a tree felled in the operation, may be used in the calculation of the average number of trees (or basal area) remaining in a hectare surrounding a stump of a tree (at the completion of that operation) only if that particular hectare is wholly within the net mapped operation area.

196. Exemption of miscellaneous forestry operations and operations authorised under s. 30I Forestry Act

Miscellaneous forestry operations and operations to take timber or other products authorised by Forests NSW under section 30I of the *Forestry Act 1916* are not required to comply with this Part.

Division 2 – Tree retention and protection in logging and non-commercial thinning operations

197. Retention of western ironbark trees

- (1) A western ironbark tree having a dbhob of 500 mm or more must not be felled in a logging operation or non-commercial thinning operation.
- (2) In addition, a number of other western ironbark trees must be retained in the net mapped operation area in any logging operation or non-commercial thinning operation in which western ironbark trees are felled. Enough western ironbark trees must be retained to ensure that, at the completion of the logging or non-commercial thinning operation concerned, the sum of the basal areas (“total basal area”) of western ironbark trees that remain in each hectare of land surrounding a stump of any western ironbark tree that has been felled in that operation is at least 0.75 square metres.
- (3) Only living trees may be selected for the purpose of subclause (2). From among the living trees surrounding the tree that is or is proposed to be felled and within the net mapped operation area, trees are to be selected for retention in accordance with the following principles:
- (a) trees selected are to be merchantable and have a dbhob of at least 300 mm (but less than 500 mm),
 - (b) of the trees that have the characteristics specified in paragraph (a), those trees that belong to the highest (or a higher) dominance class within their stand of trees and have a dbhob of 400 mm or more are to be selected for retention over those that belong to a lesser dominance class or have a dbhob less than 400 mm,

- (c) if there are not any, or not enough, trees having the characteristics specified in paragraph (a) to achieve a total basal area of 0.75 square metres in the hectare of land surrounding the tree that is felled, then the balance of that basal area is to be provided by trees having a dbhob of less than 300 mm,
 - (d) of the trees having a dbhob of less than 300 mm in the net mapped operation area, those trees that belong to the highest (or a higher) dominance class within their stand of trees are to be selected for retention over those that belong to a lesser dominance class.
- (4) Subclause (2) is not breached merely because the total basal area of western ironbark trees remaining, at the completion of an operation, in a particular hectare of land surrounding the stump of a western ironbark tree, is less than 0.75 square metres, if the average total basal area of western ironbark trees remaining in a hectare surrounding a stump of a western ironbark tree (within that part of the net mapped operation area sampled in accordance with the auditing methodology) is at least 0.75 square metres.
 - (5) If only part of the hectare of land surrounding the stump of a western ironbark tree is located within the net mapped operation area, then the total basal area of western ironbark trees that must remain at the completion of the operation concerned, in that part of the hectare, is reduced (from 0.75 square metres) on a pro rata basis according to the proportion that the part within the net mapped operation area bears to the whole hectare.
 - (6) To avoid doubt, the basal area of a western ironbark tree with a dbhob of 500 mm or more is not to be included in the calculation of the total basal area of western ironbark trees that remain in a hectare of land surrounding a stump of a western ironbark tree for the purpose of subclause (2).

198. Retention of large white cypress trees

- (1) Forests NSW must ensure that, at the completion of any logging operation or non-commercial thinning operation in which white cypress trees are felled, at least six large white cypress trees remain, within the net mapped operation area, in each hectare of land surrounding a stump of any white cypress tree that is felled in the operation concerned.
- (2) Only living trees may be selected for the purpose of subclause (1). If possible, the trees selected for retention are each to have a dbhob of more than 550 mm. If there are not enough trees having such a dbhob, surrounding the tree that is or is proposed to be felled and within the net mapped operation area, then trees are to be selected from the cohort of healthy, mature trees with the next largest diameters at breast height over bark to make up the shortfall.
- (3) Subclause (1) is not breached merely because there are less than six large white cypress trees remaining, at the completion of an operation, in a particular hectare of land surrounding the stump of a white cypress tree, if the average number of large white cypress trees remaining in a hectare surrounding a stump of a white cypress tree (within that part of the net mapped operation area sampled in accordance with the auditing methodology) is at least six.
- (4) If only part of the hectare of land surrounding a stump of a white cypress tree is located within the net mapped operation area, then the number of large white cypress trees that must be retained in that part of the hectare, at the completion of the operation concerned, is reduced from six, according to the proportion that the part within the net

mapped operation area bears to the whole hectare (rounded up or down to a whole number of trees, as appropriate).

199. Retention of Tableland hardwood and Western hardwood habitat trees and recruitment trees

- (1) In this clause, a reference to a Tableland hardwood species or a Western hardwood species does not include a reference to western ironbark trees.
- (2) Forests NSW must ensure that, at the completion of any logging operation or non-commercial thinning operation in which trees of a Tableland hardwood species or a Western hardwood species are felled, at least five habitat trees (as described in subclause (3)) and at least five recruitment trees (as described in subclause (5)) remain, within the net mapped operation area, in each hectare of land surrounding a stump of any tree of a Tableland hardwood species or a Western hardwood species that is felled in the operation concerned.
- (3) From among the living trees in the net mapped operation area surrounding the tree that is or is proposed to be felled, habitat trees must be selected with the objective of retaining trees having as many of the following characteristics as possible:
 - (a) be hollow-bearing,
 - (b) have good crown development,
 - (c) have minimal butt damage,
 - (d) belong to a cohort of trees with the largest diameters at breast height over bark.
- (4) The habitat trees retained for the purpose of subclause (2) must belong to a Tableland hardwood species or a Western hardwood species to which trees felled in the operation concerned belong. Forests NSW is to endeavour to ensure that the proportion of habitat trees belonging to a particular species reflects the proportion of trees of that species felled in the operation.
- (5) From among the living trees in the net mapped operation area surrounding the tree that is or is proposed to be felled, recruitment trees must be selected with the objective of retaining trees that will develop hollows, being trees having as many of the following characteristics as possible:
 - (a) be mature or late mature,
 - (b) have potential for developing hollows,
 - (c) have good crown development,
 - (d) have minimal butt damage,
 - (e) be dominant, co-dominant or sub-dominant (but not suppressed).
- (6) The recruitment trees retained for the purpose of subclause (2) must belong to a Tableland hardwood species or a Western hardwood species to which trees felled in the operation concerned belong. Forests NSW is to endeavour to ensure that the proportion of recruitment trees belonging to a particular species of tree reflects the proportion of trees of that species felled in the operation.
- (7) Subclause (2) is not breached merely because there are less than 5 habitat trees or less than 5 recruitment trees remaining, at the completion of an operation, in a particular hectare of land surrounding the stump of a tree of a Tableland hardwood species or a Western hardwood species, if the average number of habitat trees and the average number of recruitment trees, respectively, remaining in a hectare surrounding

a stump of a tree of any such species (within that part of the net mapped operation area sampled in accordance with the auditing methodology) is at least 5.

- (8) If only part of the hectare of land surrounding a stump of a tree of a Tableland hardwood species or a Western hardwood species is located within the net mapped operation area, then the number of habitat trees and the number of recruitment trees, respectively, that must be retained in that part of the hectare, at the completion of the operation concerned, is reduced from five, in accordance with the proportion that the part within the net mapped operation area bears to the whole hectare (rounded up or down to a whole number of trees, as appropriate).
- (9) In this clause, “hollow-bearing”, in relation to a tree, means a tree having a base, trunk or limb that contains a visible hollow, hole or cavity or a visible deformity such as a burl, protuberance or broken limb that indicates that a hollow is likely to be present.

200. Retention of bull oak

- (1) Forests NSW must ensure that, at the completion of any logging operation or non-commercial thinning operation in which bull oak trees are felled, at least two bull oak trees remain, within the net mapped operation area, in each hectare of land surrounding a stump of any bull oak tree that is felled in the operation concerned.
- (2) Trees must be selected, for the purpose of subclause (1), from among the larger bull oak trees that are within the net mapped operation area in the hectare of land surrounding the bull oak tree that is to be felled. Only living trees may be selected.
- (3) Subclause (1) is not breached merely because there are less than two bull oak trees remaining, at the completion of an operation, in a particular hectare of land surrounding the stump of a bull oak tree, if the average number of bull oak trees remaining in a hectare surrounding a stump of a bull oak tree (within that part of the net mapped operation area sampled in accordance with the auditing methodology) is at least two.
- (4) If no more than half of the hectare of land surrounding a bull oak tree is located within the net mapped operation area, then only one bull oak tree must remain, at the completion of the operation concerned, around the stump of that tree within the net mapped operation area. If no more than a quarter of the hectare of land surrounding a bull oak tree is located within the net mapped operation area, then no bull oak trees are required to be retained under this clause in the hectare of land surrounding the stump of that tree within the net mapped operation area.

201. Key regent honeyeater habitat trees must not be felled

- (1) Key regent honeyeater habitat trees must not be felled in any logging operation or non-commercial thinning operation.
- (2) In this clause, “key regent honeyeater habitat tree” means a living tree that has a dbhob of at least 300 mm and belongs to any of the following species: *E. sideroxylon* (Mugga Ironbark), *E. melliodora* (Yellow Box), *E. albens* (White Box), *E. maculata* (Spotted Gum), *E. robusta* (Swamp Mahogany), *E. blakelyi* (Blakely’s Red Gum), *Casuarina cunninghamiana* (River Sheoak), *E. camaldulensis* (River Red Gum).

202. Trees in which regent honeyeaters are seen feeding must not be felled

A living tree must not be felled in any logging operation or non-commercial thinning operation or in the course of, or for the purpose of, road works, if there is a record of a regent

honeyeater having fed in that tree (including an observation made during the course of the operation concerned). To avoid doubt, the tree must not be felled even though there is no longer any evidence of any regent honeyeater present in the tree or in its vicinity.

203. Glider sap feed trees must not be felled

- (1) Glider sap feed trees must not be felled in any logging operation or non-commercial thinning operation or in the course of, or for the purpose of, road works.
- (2) In this clause:

“glider sap feed tree” means a living tree that exhibits incisions, including V-notch incisions, made less than two years before the relevant logging operation, non-commercial thinning operation or road works (as evidenced by the non-occlusion of the incisions), by a gliding possum for the purpose of feeding on exuding sap; and

“gliding possum” means a possum of a species belonging to the genus *Petaurus*, such as a squirrel glider (*Petaurus norfolcensis*), yellow-bellied glider (*Petaurus australis*) and sugar glider (*Petaurus breviceps*).

204. Trees that contain raptor nests must not be felled

A tree (whether living or dead) that contains a raptor nest must not be felled in a logging operation or non-commercial thinning operation.

205. Koala scat trees must not be felled

A tree (whether living or dead) must not be felled in any logging operation or non-commercial thinning operation if 40 or more koala scats have been, or are, found under the canopy of the tree either in the survey carried out as required by clause 184 for the purpose of the operation or in the course of the operation.

206. Retention of dead trees - from commencement to end of 2015

- (1) This clause applies from the commencement of this approval up to and including 31 December 2015. (It does not apply to a salvage logging operation following a wildfire carried out in accordance with Division 3.)
- (2) A dead, standing tree (of whatever species) that has a dbhob of 450 mm or more must not be felled in a logging or non-commercial thinning operation.
- (3) A dead, standing tree (of whatever species) that is still standing and that has a dbhob of less than 450 mm may be felled in a logging or non-commercial thinning operation, but only if:
 - (a) it does not appear to have any hollows or cracks that are more than 50 mm wide, and
 - (b) there are at least 3 other dead, standing trees (of any species) within the net mapped operation area that have a dbhob of at least 200 mm (but less than 450 mm) in the hectare surrounding the dead tree to be felled.
- (4) If only part of the hectare surrounding a dead, standing tree is within the net mapped operation area, then the number of other dead, standing trees that need to be present in the hectare surrounding that tree (for the purposes of satisfying subclause (3) (b)) is reduced from three to two or one, according to whether the proportion of that hectare

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within the net mapped operation area is between two thirds and one third of the hectare, or less than one third of the hectare, respectively.

- (5) Forests NSW must ensure that, at the completion of the logging operation or non-commercial thinning operation concerned, the number of dead, standing trees (having a dbh of at least 200 mm but less than 450 mm) referred to in subclause (3) or (4) (as the case may require) remain within the net mapped operation area in the hectare surrounding the stump of any dead tree that has been felled in the operation.
- (6) The requirements of clauses 197 (2), 198, 199 and 200 for the retention of living trees do not apply in relation to the felling of a dead, standing tree under this clause, whatever the species of the tree.

207. Retention of dead trees – from 1 January 2016 onwards

- (1) This clause applies on and from 1 January 2016. (It does not apply to a salvage logging operation following a wildfire carried out in accordance with Division 3.)
- (2) A dead, standing tree (of whatever species) must not be felled in a logging or non-commercial thinning operation.

Note: Clauses 206 and 207 reflect the green firewood strategy developed for the Brigalow-Nandewar Region. Under this strategy, the removal of dead trees for the purpose of producing dry firewood is to be phased out by 2016. Green residual timber will be stockpiled and dried instead to continue to satisfy the demand for firewood (see clause 33).

208. Trees retained for one purpose may be treated as retained for other purposes

Except as otherwise expressly provided in this Part, a tree that is retained for the purpose of a provision of this Division (or that must not be felled under a provision of this Division) may be counted or treated as a tree retained for the purposes of one or more other provisions of this Division or Part, if it also meets the criteria for retention relevant to those other provisions. For example:

- (a) a tree that is a key regent honeyeater habitat tree within the meaning of clause 201 (such as a tree of the species *E. camaldulensis*) may be able to be treated as a habitat tree or recruitment tree retained for the purpose of clause 199, and
- (b) a dead tree that contains a raptor nest may be able to be treated as a dead tree selected for retention for the purpose of clause 206 or 216.

209. Protection of significant resources for eastern pygmy possum, glossy black-cockatoo, barking owl etc

- (1) Damage to the following types of trees or shrubs must be avoided or minimised to the greatest extent practicable during logging or non-commercial thinning operations:
 - (a) all stands of flowering or fruiting *Banksia* spp.,
 - (b) all stands of *Xanthorrhoea* spp.,
 - (c) all stands of *Allocasuarina* (other than bull oak) or *Casuarina* spp.,
 - (d) individual shrubs or trees of *Allocasuarina* (other than bull oak) or *Casuarina* spp. where there is evidence that glossy black-cockatoos have been feeding on them, such as chewed cones at the base of the trees,
 - (e) all stands of *Grevillea* spp. and all stands of *Eremophila* spp. (other than *E. mitchelli*, commonly known as “Budda”),
 - (f) all wilga trees (that is, trees of the species *Geijera parviflora*) that:

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- (i) are within the barking owl nest and roost zone within the meaning of clause 254, and
 - (ii) have a diameter over bark of more than 200 mm when measured at right angles to the axis of the tree and at 500 mm from the ground (on the up slope side of the tree, if the tree is on a slope).
- (2) If a nest (other than a mud nest) of any species of bird that is protected fauna is found before or during a logging or non-commercial thinning operation, damage to the nest, and the tree, shrub or ground cover vegetation that contains the nest, must be avoided or minimised to the greatest extent practicable during that operation.
- (3) In this clause, “protected fauna” has the same meaning as in the *National Parks and Wildlife Act 1974*.

210. Protection of undisturbed patches of vegetation

- (1) This clause applies following an environmental disturbance event.
- (2) A forestry operation (including a logging operation) must not be carried out in:
 - (a) any patch of vegetation that, although surrounded (or substantially surrounded) by the area devastated or substantially damaged by the environmental disturbance event, has not been disturbed (or has only been partially disturbed) by the event, and
 - (b) any area of land within 10 metres of that patch,until the area devastated or substantially damaged by the environmental disturbance event recovers from that event.
- (3) In particular, a salvage logging operation, whether or not in compliance with Division 3 of this Part, must not be carried out in the 10 metre wide area of land surrounding the patch of vegetation.
- (4) However, if the environmental disturbance event is a wildfire, a route through the patch of vegetation (and the 10 metre wide area of land surrounding it) may be used to gain access to and from a logging site in a salvage logging operation following the wildfire carried out in accordance with Division 3 of this Part.
- (5) In this clause, “environmental disturbance event” means an event (such as wildfire, drought, flood and the occurrence of disease) that kills or substantially damages at least 70% of the trees in a single area of at least one hectare.

Division 3 – Salvage logging operations – special tree retention and other requirements

211. Interpretation of Division

- (1) In this Division:

“mixed salvage logging operation following a wildfire” means a salvage logging operation for the purpose of harvesting timber (having commercial value) in both:

- (a) white cypress trees that have been killed or damaged by the wildfire, and
- (b) western ironbark trees that have been killed or so damaged by the wildfire that they are likely to die;

“western ironbark salvage logging operation following a wildfire” means a salvage logging operation for the purpose of harvesting timber (having commercial value) in western ironbark trees that have been killed by the wildfire; and

“white cypress salvage logging operation following a wildfire“ means a salvage logging operation for the purpose of harvesting timber (having commercial value) in white cypress trees that have been killed or damaged by the wildfire.

- (2) For the purposes of this Division, a western ironbark tree has been so damaged by a wildfire that it is likely to die if the tree exhibits total crown defoliation and 10% or more of the bark on its trunk below its crown has been destroyed by the wildfire, to at least the cambium layer.
- (3) In this Division, a reference to a salvage logging operation following a wildfire is reference only to the following operations:
 - (a) white cypress salvage logging operation following a wildfire,
 - (b) western ironbark salvage logging operation following a wildfire,
 - (c) mixed salvage logging operation following a wildfire.

212. Salvage logging operations following wildfire - general

- (1) Subject to clause 218, a salvage logging operation of any of the following kinds is not required to comply with Division 2 (particularly, clauses 206 and 207):
 - (a) white cypress salvage logging operation following a wildfire,
 - (b) western ironbark salvage logging operation following a wildfire,
 - (c) mixed salvage logging operation following a wildfire.
- (2) However, a salvage logging operation following a wildfire that is carried out other than in compliance with the requirements of Division 2 (relying on subclause (1)) must instead comply with the requirements of this Division.

213. Timing of salvage logging operations following wildfire

- (1) A white cypress salvage logging operation following a wildfire and a mixed salvage logging operation following a wildfire may be carried out only during the 12 months following the wildfire.
- (2) A western ironbark salvage logging operation following a wildfire may be carried out only within the period of 12 months commencing 12 months after the wildfire.

214. Minimum area over which salvage logging may be carried out

A salvage logging operation following a wildfire may be carried out only if the wildfire has devastated or damaged a single area of at least one hectare.

215. Maximum area over which salvage logging may be carried out

A salvage logging operation or operations following a wildfire for the purpose of harvesting timber from trees killed or damaged by that wildfire may not be carried out over an area exceeding 4300 hectares without DECCW’s written approval.

216. Tree retention in salvage logging operation

- (1) Forests NSW must ensure that, at the completion of a salvage logging operation following a wildfire, at least 10 trees, that have been killed or damaged by the wildfire remain, within the net mapped operation area, in each hectare of land surrounding a stump of any dead or damaged tree felled in the salvage logging operation.
- (2) Trees must be selected, for the purpose of subclause (1), from among those trees (being dead trees or damaged trees) within the hectare of land surrounding the tree to be felled, that have as many of the following characteristics as possible:
 - (a) belong to the cohort of trees with the largest diameters at breast height over bark,
 - (b) appear to be stable,
 - (c) appear to have hollows or cracks.

(To avoid doubt, the trees selected may be of any species.)

- (3) Subclause (1) is not breached merely because there are less than 10 dead or damaged trees remaining, at the completion of an operation, in a particular hectare of land surrounding a stump of a felled dead or damaged tree, if the average number of dead or damaged trees remaining in a hectare surrounding a stump of a felled tree (within that part of the net mapped operation area sampled in accordance with the auditing methodology) is at least 10.
- (4) If only part of the hectare of land surrounding a stump of a dead or damaged tree is located within the net mapped operation area, then the number of trees that must be retained in that part of the hectare is reduced from 10, according to the proportion that the part within the net mapped operation area bears to the whole hectare (rounded up or down to a whole number of trees, as appropriate).
- (5) Any western ironbark tree with a dbhob of 500 mm (which must not be felled under clause 218) may be counted or treated as a tree that is retained for the purpose of subclause (1) if it has characteristics referred to in subclause (2).

217. Protection of other trees in salvage logging operations

- (1) Timber may not be harvested, in a white cypress salvage logging operation following a wildfire or in a mixed salvage logging operation following a wildfire, from white cypress trees that have not been either killed or damaged by the wildfire.
- (2) Timber may not be harvested, in a western ironbark salvage logging operation following a wildfire, from western ironbark trees that have not been killed by the wildfire. Timber may not be harvested, in a mixed salvage logging operation following a wildfire, from western ironbark trees that have not been killed by the wildfire or are not so damaged by the wildfire that they are likely to die.
- (3) Timber may not be harvested from species other than western ironbark or white cypress in a salvage logging operation following a wildfire.
- (4) Damage to trees whose timber may not be harvested under this clause must be avoided to the greatest extent practicable in, or in an operation undertaken in conjunction with, the salvage logging operation concerned. However, any such tree may be felled if that is reasonably necessary to gain access to and from a logging site (and to remove the timber harvested) in the salvage logging operation.

- (5) Damage to non-merchantable white cypress trees and non-merchantable western ironbark trees, although killed or damaged by a wildfire, must also be avoided to the greatest extent practicable in a salvage logging operation following the wildfire. However, any such tree may be felled if that is reasonably necessary to gain access to and from a logging site (and to remove the timber harvested) in the salvage logging operation.

218. Requirements of Division 2 generally do not apply

- (1) To avoid doubt, clause 197 (2) and clause 198 do not apply in relation to a salvage logging operation following a wildfire. However, a western ironbark tree with a dbhob of 500 mm or more must not be felled in a salvage logging operation, even if that tree is dead or so damaged that it is likely to die.
- (2) Despite clause 203, a western ironbark tree that is also a glider sap feed tree (within the meaning of clause 203) may be felled in a mixed salvage logging operation following a wildfire if it is so damaged that it is likely to die.
- (3) Clause 202 does not apply to a salvage logging operation following a wildfire. However, if a regent honeyeater is observed feeding in a tree during the course of a salvage logging operation following a wildfire, it must not be felled in that operation.
- (4) Clause 204 (Trees that contain raptor nests must not be felled) applies to a salvage logging operation following a wildfire.
- (5) Damage to trees or shrubs of the kind referred to in clause 209 (1) must be avoided or minimised in a salvage logging operation following a wildfire, even if they have been damaged or appear to be dead as a result of that wildfire.
- (6) Clause 210 (Protection of undisturbed patches of vegetation) applies, as provided by that clause, in relation to a salvage logging operation following a wildfire.

219. Special protection for koalas

If a koala is found in a tree during a salvage logging operation following wildfire, the koala's tree, and trees within 20 metres of the koala's tree, must not be felled.

Division 4 – Marking trees for purposes of Division 2

220. Purpose of Division

In requiring trees to be marked during certain logging and non-commercial thinning operations, this Division has two purposes:

- (a) to minimise the risk of trees that must not be felled under, or that are retained for the purposes of, Division 2 being felled by mistake, and
- (b) to facilitate the auditing of compliance with the requirements of Division 2.

221. Rules for marking trees in logging and non-commercial thinning operations

- (1) Trees of each of the following four types must be marked, in accordance with this Division, in the operations specified:
- (a) western ironbark trees - in any logging or non-commercial thinning operation in which western ironbark trees that have a dbhob of 300 mm or more are felled,

- (b) white cypress trees - in any logging or non-commercial thinning operation in which white cypress trees that have a dbhob of 300 mm or more are felled,
 - (c) trees of a Tableland hardwood species or a Western hardwood species to which clause 199 applies - in any logging or non-commercial thinning operation in which trees of those species that have a dbhob of 300 mm or more are felled,
 - (d) bull oak trees - in any logging or non-commercial thinning operation in which bull oak trees are felled.
- (2) Whether an operation is of a type described in subclause (1) (a), (b), (c) or (d) is to be determined by reference to the site specific operational plan for the operation.

222. Trees may be marked for retention or removal

- (1) A requirement of clause 221 to mark trees of a certain type in a logging operation or non-commercial thinning operation may be satisfied either:
- (a) by marking trees of that type that are selected for felling (“marked for removal”), or
 - (b) by marking trees of that type that are selected for retention to meet such of the requirements of clauses 197 (2), 198, 199 and 200 as may be relevant to the operation (“marked for retention”).

More than one approach may be used in the same operation.

- (2) Despite subclause (1), in the case of a logging or non-commercial thinning operation in which trees of a Tableland hardwood species or a Western hardwood species to which clause 199 applies are required to be marked, habitat and recruitment trees of those species must be marked for retention (for the purpose of clause 199), whether or not trees of those species are also being marked for removal. Accordingly, at any stage of an operation, trees of those species must be marked:
- (a) for retention, or
 - (b) for retention and for removal.
- (3) When marking western ironbark trees, white cypress trees or trees of Tableland hardwood or Western hardwood species for retention (for the purpose of clause 197 (2), 198, 199 or 200) at any stage of an operation, only those trees that have a dbhob of 300 mm or more need to be marked.
- (4) If marking is required under this Division, trees must be physically marked in the field, whether by using paint or some other physical mark. Marking for removal and marking for retention must be done in different and readily distinguishable ways.

223. Marking western ironbark trees of 500 mm or more

When marking western ironbark trees for retention at any stage of a logging or non-commercial thinning operation (for the purpose of meeting the requirements of clause 197 (2)), any western ironbark tree that has a dbhob of 500 mm or more (the felling of which is prohibited under clause 197 (1)) must also be marked for retention at that stage of the operation.

224. Marking key regent honeyeater habitat trees and glider sap feed trees for retention

- (1) This clause applies to any logging or non-commercial thinning operation to which clause 221 (1) (a) or (c) applies (being an operation in which any western ironbark trees, or trees of a Tableland hardwood or Western hardwood species, are felled).
- (2) Key regent honeyeater habitat trees and glider sap feed trees (within the meanings of clause 201 and clause 203, respectively), and any regent honeyeater tree referred to in clause 202, must be marked for retention at any stage of an operation to which this clause applies if:
 - (a) in the case of an operation in which only western ironbark trees are being felled, western ironbark trees are being marked for retention at that stage of the operation (for the purpose of clause 197 (2)), and
 - (b) in any other case, trees of Tableland hardwood species or Western hardwood species are being marked only for retention (and not for removal) at that stage of the operation (for the purpose of clause 199).

225. Marking raptor nest trees and koala scat trees for retention

A tree that must not be felled under clause 204 (Trees that contain raptor nests must not be felled) or clause 205 (Koala scat trees must not be felled) must be marked for retention at any stage of a logging or non-commercial thinning operation in which trees of the same type (being one of the four types of tree described in clause 221 (1)) are being marked for retention for the purpose of clause 197, 198, 199 or 200, respectively.

226. Marking trees selected for retention

- (1) When the requirements of clause 221 are met by marking trees for retention, no more than the minimum number of trees required to be retained to meet the requirements of Division 2 (that is, the requirements of clause 197 (2), 198, 199 or 200) is required to be marked for retention.

Note: As trees (apart from bull oak) are required to be marked for retention only if they have a dbhob of 300 mm or more, it may be that less than the minimum number of trees selected for retention are required to be marked for retention in a particular operation. Further, more than the minimum number of trees required to be retained may be retained in a particular operation. Not all of them have to be marked.

- (2) Nothing in this Division affects the operation of clause 230 (2) to (4). Accordingly, a tree marked for retention in one operation may be felled in a subsequent operation if that is allowed under clause 230 (2) to (4).

227. Only trees marked for removal may be felled

If, at any stage of a logging or non-commercial thinning operation, a requirement of this Part is met by marking trees of a certain type for removal, only trees of that type that have been so marked may be felled at that stage of the operation.

228. Scope of Division

- (1) A dead tree is not required to be marked under this Division.
- (2) A tree is not required to be marked (whether for retention or removal) under this Division if the tree is inaccessible because of impenetrable vegetation or other landscape feature (such as a cliff).

- (3) This Division does not apply to or in relation to a salvage logging operation following a wildfire carried out in accordance with Division 3.
- (4) This Division does not apply to or in relation to a forestry operation for which a site specific operational plan is not required to be prepared.

229. Marking different types of trees for retention and for removal at same stage of an operation

Nothing in this Division (other than clause 224) prevents trees of one of the following four types being marked for removal and trees of another of those types being marked for retention at the same stage of an integrated operation in which trees of more than one type are felled:

- (a) western ironbark trees,
- (b) white cypress trees,
- (c) Tableland hardwood or Western hardwood trees (to which clause 199 applies),
- (d) bull oak trees.

Division 5 – Protection of retained trees in subsequent operations and general auditing provisions

230. Protection of retained trees generally

- (1) Damage to trees that must not be felled under, or are retained for the purposes of, this Part in a logging operation or a non-commercial thinning operation must be avoided or minimised to the greatest extent practicable in carrying out that operation or any other forestry operation (whether carried out at the same or subsequent time).
- (2) Despite subclause (1), different trees to those retained in an earlier operation may be retained in a subsequent logging or non-commercial thinning operation to ensure that the requirements of this Part continue to be complied with. Nevertheless, in so far as those requirements allow, trees retained in the earlier operation are to be retained in the subsequent logging or non-commercial thinning operation.
- (3) This clause does not affect the duty of Forests NSW under section 63 of the *Rural Fires Act 1997* or any other obligation imposed by or under that Act with respect to bush fire hazard reduction work. Accordingly, subclause (1) is subject to that duty and any such other obligation.
- (4) In the case of any “koala scat” tree that must not be felled under clause 205 in a logging or non-commercial thinning operation referred to in that clause, this clause applies only with respect to that operation and not a subsequent operation.

231. Specific measures to protect retained trees

- (1) In this clause, “protected tree” means a tree that must not be felled under, or that is retained for the purposes of, this Part. However, in the case of any “koala scat” tree which must not be felled under clause 205, the tree is a protected tree only for the duration of the logging or non-commercial thinning operation referred to in that clause.
- (2) This clause does not affect the generality of the duty under clause 230.
- (3) Directional felling is to be used so as to reduce the potential for damage to protected trees.

- (4) Routes of new roads and for the extraction of timber are to be planned so as to reduce the potential for damage to protected trees.
- (5) Such trees must not be used as bumper trees when snigging.
- (6) Logging debris must be prevented, to the greatest extent practicable, from accumulating within 5 metres of any protected tree during a logging operation. If logging debris does accumulate, then it must be flattened to a height of less than one metre or removed before any post-harvest burning is carried out. However, in flattening or removing the logging debris, disturbance to the ground surface and the understorey must be avoided to the greatest extent practicable.
- (7) In carrying out a logging operation, disturbance to the ground surface and understorey within 5 metres of any protected tree must be avoided or minimised to the greatest extent practicable.
- (8) In this clause, “directional felling” means the felling of a tree at a particular angle so that it falls in a pre-determined direction.

232. Auditing compliance with Part – table for calculating dbhob using stump dimensions

- (1) For the purposes of this Part, a western ironbark tree or white cypress tree that has been felled in an operation, leaving a stump of a particular height and diameter, is taken to have had (before being felled) a dbhob calculated by subtracting 1 cm from the dbhob specified in the relevant table set out in Schedule 6 as the dbhob for a western ironbark tree or white cypress tree (as the case may be) whose trunk has the same diameter (over bark) as the stump when measured at the same height from the ground as the stump.

Note: The subtraction of 1 cm from the relevant dbhob specified in the table is necessary to accommodate the approximate margin of error in the prediction of the dbhob from stump height.

- (2) For the purposes of this clause, the height of a tree stump from the ground is to be determined in accordance with the following rules:
 - (a) if the ground is not flat, the height of the tree stump is to be measured from the ground on the up slope side of the stump,
 - (b) if the surface of the tree stump is not at right angles to its axis, the height of the stump is to be measured from the ground to the lowest point of the surface of the stump,
 - (c) if the surface of the tree stump is not at right angles to its axis and the stump slopes uphill, the height of the tree stump is to be measured from the ground (on the up slope side) to the point at which a plane at right angles to the axis of the tree stump, projected from the lowest point of the surface of the stump, would intersect with the circumference of the stump (on the up slope side).
- (3) For the purposes of this clause, the diameter of the tree stump (including its bark) is its diameter measured at its height from the ground (as determined in accordance with subclause (2)), using a diameter tape, and at right angles to the axis of the tree stump.

233. Auditing compliance with Part – methodology to be developed

- (1) Forests NSW is to develop, in consultation with DECCW, a methodology for auditing compliance with the requirements for the retention of trees for the purposes of this Part (namely, clauses 197 (2), 198, 199, 200, 206 and 216). Forests NSW is to endeavour to have in place an auditing methodology (approved by DECCW) within 12 months of the commencement of this approval.
- (2) The methodology for auditing compliance with the requirements for the retention of trees for the purposes of this Part is to specify the following:
 - (a) how many sample areas surrounding the stumps of trees felled in an operation need to be selected,
 - (b) the size of each sample area, including whether or not the sample area must be the whole hectare surrounding a stump of a tree or whether it may comprise a smaller plot or plots of land within that hectare,
 - (c) how each sample area is to be selected,
 - (d) the method of measuring basal area, and calculating the total basal area, of western ironbark trees in a sample area (retained for the purposes of clause 197 (2)), including the extent to which estimates may be used,
 - (e) the method of calculating number of trees retained for the purposes of clauses 198, 199, 200, 206 and 216, respectively, in a sample area,
 - (f) the acceptable level of error in the results obtained by applying the methods referred to in paragraphs (d) and (e) to a sample area.
- (3) The methodology for auditing compliance may deal with other matters in addition to those described in subclause (2).
- (4) The methodology developed under this clause does not have effect unless and until DECCW has approved it in writing. It may be amended from time to time with the written approval of DECCW.

234. Records to be kept of removal of dead, dangerous trees

If a dead, dangerous tree (as described in ‘Forests NSW Safety Standard 1.3.9 “Dealing with Dangerous Trees”’, as current from time to time) is removed (because it is a dangerous tree), Forests NSW is to ensure the following information is recorded:

- (a) the location of the dead, dangerous tree (by reference to its grid co-ordinates),
- (b) the date on which the dead, dangerous tree was removed,
- (c) the diameter of the tree stump left,
- (d) the species of the dead, dangerous tree (if known).

Note: Clause 16 (Part 1.1) makes it clear that duties under occupational health and safety laws (including Forests NSW’s internal safety standards) prevail over any restriction imposed by the approval. Accordingly, a tree that would otherwise be required to be retained under this Part may be removed, if it is dangerous. However, if a dead, dangerous tree is removed, Forests NSW must record the information in the above clause.

PART 3.5 – CONDITIONS RESTRICTING CERTAIN FORESTRY OPERATIONS GENERALLY

235. Green firewood strategy

- (1) On and from the commencement of this approval up to and including 31 December 2015, a dry log or other piece of wood lying on the floor of the forest may not be collected, or cut or otherwise damaged, for the purpose of its sale as firewood if:
- (a) any part of the log or piece of wood is equal to or greater than 60 centimetres in diameter, or
 - (b) although smaller than 60 centimetres in diameter (measured at any point), the log or wood has a hollow with a diameter that is half or more of the log's maximum diameter.

- (2) On and from 1 January 2016, dry logs and other pieces of wood lying on the floor of the forest may not be collected, or cut or otherwise damaged, for the purpose of their sale as firewood.
- (3) This clause does not restrict the collection from the floor of the forest of dry logs or pieces of wood for firewood in accordance with an authorisation under section 30I of the Forestry Act 1916 or the sale of residue timber (within the meaning of clause 33) for firewood.
- (4) In this clause, a reference to a dry log or other piece of wood is a reference to a log or other piece of wood from which the majority of the bark has separated from the sapwood.

236. Dispersal of collection of firewood under s. 30I of the Forestry Act

Forests NSW is to endeavour to limit the adverse cumulative impacts of the collection of firewood pursuant to authorisations under section 30I of the Forestry Act 1916 on the habitat of ground dwelling threatened species and protected fauna:

- (a) by dispersing the areas within the Brigalow-Nandewar Region in which collection is authorised over the term of this approval, and
- (b) by having regard to the extent to which that habitat has already been disturbed or reduced by the collection of firewood in the relevant area, when determining an application made under section 30I of the Act for authorisation to collect firewood.

237. Harvesting of broombush (*Melaleuca uncinata*)

- (1) Broombush (that is, *Melaleuca uncinata*) must not be harvested from a shrub that is more than 3 metres high or less than 0.5 metres high.
- (2) In any one harvesting operation, broombush must not be harvested from more than 70% of the total number of individual broombush shrubs between 0.5 metres and 3 metres high in the compartment or other tract of land covered by the site specific operational plan for the harvesting operation.
- (3) In planning the location and timing of proposed broombush harvesting operations, Forests NSW must endeavour to disperse those operations over the Brigalow-Nandewar Region (in so far as the distribution of broombush stands across the Region allows) and over time, so as to reduce any adverse cumulative impacts of such operations on threatened species, populations and ecological communities and their habitats.
- (4) No more than 500 tonnes of broombush may be harvested in any financial year.

238. Harvesting of hollow branches or stems for didgeridoos

- (1) The purpose of this clause is to restrict and regulate forestry operations for the express purpose of harvesting hollow stems or branches of trees, particularly for didgeridoo production.

Note: The purpose of the clause is not to regulate the incidental and unintentional cutting of branches or stems that are hollow in the course of logging or other forestry operations.

- (2) Forests NSW must not authorise the harvesting of more than 500 hollow stems or branches of trees in any financial year for any purpose, including didgeridoo production.
- (3) A person must not harvest stems or branches that contain visible hollows other than in accordance with an express authority by Forests NSW to do so (whether a licence or other authorisation under Part 3 of the Forestry Act 1916).
- (4) The holder of a licence or other authorisation from Forests NSW to harvest hollow stems or branches for didgeridoo production must ensure that only stems and branches that contain hollows that appear to be suitable for producing didgeridoos are harvested for that purpose. If a stem or branch has no visible hollow that shows it is suitable for producing a didgeridoo, then it must not be cut unless the presence of such a hollow is otherwise established (such as by drilling a small hole or holes into the stem or branch).
- (5) The holder of a licence or other authorisation from Forests NSW to harvest hollow stems or branches for didgeridoo production must also ensure that a hollow stem or branch is not cut if it contains evidence, or exhibits other signs, of use by an individual of a vertebrate animal species, such as a nest, feathers, scats or scratchings or chewings (around the hollow's opening).
- (6) Hollow stems and branches may be harvested for didgeridoo production only from the following species of trees:
 - (a) green mallee (*Eucalyptus viridis*),
 - (b) white mallee (*Eucalyptus dumosa*),
 - (c) Dwyers red gum (*Eucalyptus dwyeri*),
 - (d) brown bloodwood (*Corymbia trachyphloia*),
 - (e) dirty gum (*Eucalyptus chloroclada*).
- (7) In authorising operations in which hollow stems or branches for didgeridoo production may be harvested, Forests NSW is to disperse those operations over the Brigalow-Nandewar Region (in so far as the distribution of the tree species referred to in subclause (6) allows) and over time, so as to reduce any adverse cumulative impacts of such operations on the environment of any part of the Region.
- (8) Forests NSW must ensure that before any harvesting of hollow stems or branches for didgeridoo production is commenced under a licence or other authorisation it has granted under the Forestry Act 1916, the holder of the licence or authorisation is provided with a map or maps that depict the area in which harvesting may be undertaken (such as a copy of the operational map if a site specific operational plan is required for the operation).
- (9) The holder of the licence or other authorisation must ensure that the map or maps so provided are marked to indicate the locations at which hollow stems or branches are

harvested and that the map or maps are returned to Forests NSW at the end of the harvesting operation to which they relate. (Forests NSW must retain those maps.)

- (10) Clause 199 applies to operations for the purpose of harvesting hollow stems or branches for didgeridoo production, whether or not any such operations are logging operations to which that clause applies. For the purpose of applying clause 199, an operation expressly authorised as an operation to cut hollow stems or branches (for didgeridoo production) is to be treated as a logging operation and any tree from which a stem or branch is cut is to be treated as a stump of a tree felled in the logging operation.
- (11) Without limiting the operation of clause 230 (Protection of retained trees generally) and clause 231 (Specific measures to protect retained trees) any tree that is retained for the purposes of clause 199 as a habitat tree or a recruitment tree in a logging or non-commercial thinning operation must not be cut subsequently for the purpose of didgeridoo production. Nor must its branches be cut for that purpose.

239. Impact of miscellaneous forestry operations and operations under s. 30I of the Forestry Act 1916

- (1) This clause applies to the following small-scale logging operations:
 - (a) miscellaneous forestry operations described in paragraphs (a) and (b) of clause 10 (that is, felling of trees to provide Forests NSW with timber to construct or maintain infrastructure and felling of trees for training purposes),
 - (b) logging operations authorised by Forests NSW under section 30I of the Forestry Act 1916.
- (2) Forests NSW or the holder of an authorisation under section 30I of the Forestry Act 1916 (as the case may require) must ensure that no more than 20 cubic metres of logs (including vineposts and fenceposts) is obtained from any one small-scale logging operation.
- (3) Forests NSW or the holder of an authorisation under section 30I (as the case may require) must ensure that, at the completion of a small-scale logging operation:
 - (a) the stump of any tree felled in the operation that had a dbhob of less than 200 mm is at least 3 metres from the stump of any other tree felled in the same operation, and
 - (b) the stump of any tree (“**T**”) felled in the operation that had a dbhob of 200 mm or more is at least the distance (“**M**”) from the stump of any other tree felled in the same operation, calculated by applying the following formula:

$$\mathbf{M} = \mathbf{Z} \times \mathbf{50}$$
, where **Z** is the dbhob of the tree **T** before it was felled.
- (4) The following trees must not be felled in a small-scale logging operation:
 - (a) any tree in which a nest of a species of bird that is protected fauna (within the meaning of the National Parks and Wildlife Act 1974) is found during the operation,
 - (b) any tree under which a koala scat or scats are found, or any tree in which a koala is found, during the operation,
 - (c) any tree with visible hollow, hole or cavity.

Damage to any such tree must also be avoided as far as is practicable during the small-scale logging operation.

- (5) A tree with a dbhob of 400 mm or more must not be felled in a small-scale logging operation authorised under section 30I of the Forestry Act 1916.
- (6) A small-scale logging operation is not required to comply with the restrictions of this clause if the following provisions are complied with instead, before or during the operation (as the case may require):
 - (a) Part 3.2 (Plant and animal surveys before commencement of logging and road works),
 - (b) Division 2 of Part 3.3 (Compartment surveys and marking-up of features and boundaries),
 - (c) Part 3.4 (Conditions relating to tree retention in carrying out logging operations and other forestry operations).

240. Burning operations – annual planning

- (1) In planning burning operations on an annual basis, Forests NSW is to consider the following matters:
 - (a) the frequency and intensity of fires (including wildfires) that have occurred in the Brigalow-Nandewar Region and in relation to which Forests NSW has records,
 - (b) the minimum fire intervals for threatened species of plants and endangered ecological communities present in the Region, as referred to in the *Bush Fire Environmental Assessment Code for New South Wales* as in force from time to time, under Division 8 of Part 4 of the Rural Fires Act 1997,
 - (c) when available, post-fire age class distributions for vegetation types in the Region.

Post-fire age class distributions for vegetation types in the Region are to be considered with a view to identifying over-represented age classes, the burning of which may assist in restoring ecological integrity.

- (2) Before including a burning operation in an annual program of forestry operations, Forests NSW must carry out a comparative assessment of the environmental impact of carrying out the operation and of not carrying out the operation. The comparative assessment is to address the matters described in subclause (1) as applied to the particular tract of land for which the burning operation is being considered.
- (3) For the purposes of subclause (1) (c), Forests NSW must, within the 5 years following the commencement of this approval:
 - (a) identify and map vegetation types within the Brigalow-Nandewar Region and prepare post-fire age class distribution maps for those vegetation types, and
 - (b) develop a theoretical post-fire age class distribution model for those vegetation types to enable a comparison to be made with actual post-fire age class distribution for those types,

in accordance with the process outlined in Forests NSW's Corporate Fuel Management Plan 2008 (Chapter 6.2.2).

- (4) Forests NSW is to make and keep a written record of its consideration of matters under subclause (1) in planning burning operations on an annual basis and of each comparative assessment carried out under subclause (2).
- (5) This clause does not restrict the carrying out of bush fire hazard reduction work by Forests NSW for the purpose of fulfilling its duty under section 63 of the Rural Fires Act 1997 or any other obligation imposed by or under that Act.

241. Burning operations and broombush

When carrying out burning operations (such as bush fire hazard reduction), Forests NSW is to avoid burning any stand of broombush (that is, *Melaleuca uncinata*) if the majority of the shrubs comprising the stand are more than 3 metres high and are not senescent.

242. Construction of roads prohibited to enable harvesting of broombush or didgeridoos etc

- (1) A road may not be constructed, re-opened or up-graded solely to enable or assist in the harvesting of stems or branches of trees for didgeridoo production.
- (2) A road or bush track may not be constructed, re-opened or up-graded through any stand of broombush if the majority of the shrubs comprising the stand are more than 3 metres high and are not senescent.

PART 3.6 – ENVIRONMENTALLY SIGNIFICANT AREAS AND THEIR IDENTIFICATION

243. Presence of environmentally significant areas and drainage protection areas must be determined

- (1) Before and during the course of a forestry operation in a compartment or other tract of land, Forests NSW is to ascertain what environmentally significant areas and drainage protection areas in which the forestry operation is prohibited or restricted lie within the compartment or other tract of land.
- (2) Nothing in this clause requires Forests NSW to carry out surveys or searches in addition to those expressly required by this Chapter in relation to the forestry operation concerned. Accordingly, Forests NSW is taken to have satisfied its obligation under this clause if it ascertains what environmentally significant areas and drainage protection areas lie within the compartment or other tract of land in which the forestry operation is undertaken on the basis of the following information:
 - (a) information that it holds at the time of the preparation of any site specific operational plan for the forestry operation or other documentation relevant to the operation, such as information on the Forests NSW corporate geodatabase and records of animals and plants (including the Atlas of NSW Wildlife referred to in clause 141 and the results of traverse and targeted animal and plant surveys undertaken under Part 3.2),
 - (b) the results of any survey undertaken as required by clause 184 in the compartment or other tract of land in connection with the forestry operation,
 - (c) any observations made in the field in the course of the forestry operation.

244. Special landscape features are environmentally significant areas

(1) The following are environmentally significant areas for the purposes of this approval:

- (a) any area of heath of more than 0.2 hectares,
- (b) any area of land within 30 metres of the outer edge of an area of heath referred to in paragraph (a) (“protection zone”),
- (c) any area of rocky outcrops or cliffs,
- (d) any area of land within 30 metres of the outer edge of an area of rocky outcrops that is more than 0.1 hectare (“protection zone”),
- (e) any area of land within 30 metres of the outer edge of a cliff (“protection zone”),
- (f) any dam or tank,
- (g) any area of land within 10 metres of a dam or tank (“protection zone”),
- (h) any area of land that is classified as Forest Management Zone 3A and that was further classified, in the attribute table associated with the FMZ layer as at 3 November 2008, or, after that date, is further classified (for the time being) in that table, as a zone of a type designated by any of the following codes:

- 3AWGhPLnk,
- 3AWGhPgbw,
- 3AWGhBxxx,
- 3AWGhPxxx.

The areas of land referred to in paragraphs (b), (d), (e) and (g) are protection zones for the purposes of this approval. Any area of land referred to in paragraph (h) is a Zone 3A ESA for the purposes of this approval.

(2) For the purpose of determining the areas of land that were classified as described in subclause (1) (h) as at 3 November 2008, the CD-Rom that was forwarded to DECCW on that date (with the label “081104_1619”) and on which there is a copy of the FMZ layer and associated attribute table may be relied upon.

245. Species protection zones are environmentally significant areas

Any area of land described in, or designated under, this Part as a species protection zone is an environmentally significant area for the purposes of this approval.

246. Species protection zones for bird nests and roost sites

(1) Any area of land within the distance specified in column 2 of the table below from a nest or roost of a bird or birds of the species described (on the same row) in column 1 of that table is a species protection zone. This subclause applies only to a nest or roost of which there is a record.

Column 1	Column 2
Brown treecreeper (eastern subspecies) nest	20 metres
Turquoise parrot nest	50 metres
Masked owl roost	100 metres
Barking owl major roost	100 metres
Bush stone-curlew nest	100 metres
Square-tailed kite nest	100 metres
Regent honeyeater nest	100 metres
Painted honeyeater nest	100 metres
Malleefowl nest	100 metres

Gilbert's whistler nest	100 metres
Black-breasted buzzard nest	100 metres
Grey falcon nest	100 metres
Red-tailed black-cockatoo nest	100 metres
Masked owl nest	200 metres
Barking owl nest	200 metres
Glossy black-cockatoo nest	200 metres

- (2) Despite subclause (1), an area of land around a nest (other than a nest of an owl, turquoise parrot or regent honeyeater) is not, or is no longer, a species protection zone, in relation to a forestry operation being carried out in the compartment or tract of land containing the nest (or adjoining the land containing the nest), if the nest has not been used by birds of that species:
- (a) for at least two consecutive breeding seasons, and
 - (b) during the breeding season immediately preceding the forestry operation (if the latter of the two consecutive breeding seasons referred to in paragraph (a) is not the breeding season immediately preceding the operation).
- (3) Forests NSW may rely on subclause (2) only if surveys conducted during breeding seasons show, to DECCW's satisfaction (as recorded in writing), that the nest has not been used by birds of the relevant species during those seasons.
- (4) To avoid doubt, if a nest, or tree containing a nest or roost, is destroyed (for example, in a storm or fire), or a nest is dislodged from a tree, the area of land around the former site of the nest or tree is no longer a species protection zone. An area of land ceases to be a species protection zone around a masked owl roost or barking owl major roost if the site of the roost no longer exhibits signs of continuing use by masked owls or barking owls (as the case may be).
- (5) In this clause:
- (a) a reference to a nest of a species of bird is a reference to any structure built by birds, or to any hollow in a tree, stag or log, or to any site (including on the ground or in a cave), that is used (or has been used) by birds of the species to lay and incubate their eggs or rear their young (or both), and
 - (b) a reference to a barking owl major roost is a reference to a site where there is an accumulation of barking owl pellets, remains of animals of species preyed upon by barking owls or barking owls' excreta, indicating frequent and recent use by barking owls.

247. Species protection zones for bat tree roosts

- (1) Any area of land within 30 metres of a bat roost tree (of which there is a record or that is found during the course of a forestry operation) is a species protection zone for a bat tree roost.
- (2) In this clause, a reference to a bat roost tree is a reference to a tree (including a dead standing tree) that exhibits signs of use by bats of a microchiropteran species.
- (3) To avoid doubt, an area of land ceases to be a species protection zone under this clause if the tree around which it is centred no longer exhibits signs of use by bats of a microchiropteran species.

248. Species protection zones for subterranean bat roosts

Species protection zones for bats

- (1) The following are species protection zones for bats:
 - (a) a potential subterranean bat roost,
 - (b) if the potential subterranean bat roost is a disused mine shaft, any area within 40 metres of each entrance to the shaft,
 - (c) in the case of a potential subterranean bat roost other than a disused mine shaft, any area within 100 metres of each entrance of the roost.
- (2) A potential subterranean bat roost that consists of a disused mine shaft or rock overhang, and the area surrounding it, cease to be species protection zones if:
 - (a) an absence of evidence of bats within the roost is established in at least one inspection survey, and
 - (b) there is no record associated with the roost of a bat of a species that uses roosts of that kind.
- (3) The species protection zone around each entrance of a potential subterranean bat roost that consists of a cave, mine or tunnel is reduced from any area within 100 metres of the entrance to any area within 50 metres of the entrance if:
 - (a) an absence of evidence of bats within the roost is established in:
 - (i) at least one inspection survey, if the roost is a mine, and
 - (ii) at least two inspection surveys, if the roost is a cave or tunnel, and
 - (b) there is no record associated with the roost of a bat of a species that uses roosts of that kind.
- (4) If there is a record of bats in a subterranean site (being a cave, disused mine shaft, mine, tunnel or rock overhang) that is not a potential subterranean bat roost, that site, and any area within 100 metres of each entrance to the site, are species protection zones.

Inspection survey

- (5) It is not enough that no evidence of bats is found within a roost during an inspection survey for an absence of evidence of bats within the roost to have been established for the purposes of subclause (2) (a) or (3) (a). If, for example, the person carrying out the survey was unable to inspect the entire roost, an absence of evidence of bats within the roost is not established for the purposes of subclause (2) (a) or (3) (a) (as the case may be).
- (6) For the purposes of this clause:
 - (a) an inspection survey is a survey that is carried out by a person with experience in surveying subterranean bat roosts for evidence of bats, and
 - (b) an inspection survey ceases to be an inspection survey 10 years after being carried out (but may have been carried out before the commencement of this approval), and
 - (c) the two inspection surveys referred to in subclause (3) (a) (ii) are two inspection surveys carried out in different survey seasons, being:
 - October – March,

- April – September.

Definitions

(7) In this clause:

“disused mine shaft” means a vertical tunnel constructed for the purpose of mining, but no longer used for that purpose;

“evidence of bats” includes, not only a sighting of a bat or bats, but also guano (either whole or powdered) and the distinctive odour of guano;

“mine or tunnel” means an underground cavity that has been created or constructed by people and that is enclosed except for one or more entrances (or exits);

“potential subterranean bat roost” means any of the following:

- (a) a cave that meets the following description:
 - (i) at least one entrance has a diameter of 0.5 metres or more, and
 - (ii) the diameter of the cave chamber (that is, the longest distance between any two points on the perimeter of the cave’s base) is at least 0.5 metres, and
 - (iii) the length of the cave (from entrance to furthest point from the entrance) is at least 3 metres, and
 - (iv) the height of a dome of the cave is at least 1 metre higher than the top of an entrance;
- (b) a disused mine shaft that is at least 4 metres deep and that has one or more of the following features:
 - (i) not all faces of the shaft are visible from the surface,
 - (ii) it has ledges that are suitable for bats to roosts under,
 - (iii) it links to a horizontal shaft that is at least 1 metre long;
- (c) a mine or tunnel that meets the following description:
 - (i) at least one entrance has a diameter of 0.5 metres or more, and
 - (ii) the length of the mine or tunnel running horizontally is at least 3 metres, and
 - (iii) the cavity is at least 1 metre high at some point;
- (d) a rock overhang with holes or crevices (or both) in the roof or wall protected by the overhang where the overhang protrudes at least 3 metres from the wall of the rock face below it and is at least 3 metres wide; and

“rock overhang” means a rock that projects outward from the rock face below it.

249. Species protection zones for flying-fox camps

- (1) The following are species protection zones for flying-foxes:
 - (a) a flying-fox camp,
 - (b) any area within 50 metres of a flying-fox camp if that camp contains flying-foxes of the species *Pteropus poliocephalus* (Grey-headed flying-fox) or *Pteropus alecto* (Black flying-fox).

- (2) A flying-fox camp (for the purposes of subclause (1)) is an area of land in relation to which there are records that indicate more than 100 flying-foxes (whether of the same or different species) congregate to roost in the branches of the trees within the area from time to time.
- (3) When determining the extent of a flying-fox camp (because of undertaking a forestry operation in the compartment or other tract of land in which the flying-fox camp is located or that is in the vicinity of the camp), Forests NSW is not required to take into consideration records of flying-foxes found or made more than five years before the operation. The boundary of the flying-fox camp is marked by the outer trees in the group in relation to which there are records of flying-foxes roosting.

250. Species protection zones for koalas (*Phascolarctos cinereus*)

- (1) The following areas are species protection zones for koalas:
 - (a) a koala high use area, as identified in a survey required by clause 184 and recorded on a copy of a site specific operational plan under clause 186,
 - (b) any area within 100 metres of such a koala high use area,
 - (c) any area within 30 metres of a tree in which a koala has been found in a survey required by clause 184 or is found in the course of a forestry operation, other than a salvage logging operation following a wildfire (within the meaning of Division 3 of Part 3.4).

Note: Clause 219 provides for alternative protection of koalas found in a salvage logging operation following a wildfire.

- (2) The areas referred to in subclause (1) (a) and (b) (koala high use areas and their surrounding areas) are species protection zones only for the duration of the forestry operation for the purposes of which the survey referred to in subclause (1) was carried out.
- (3) An area referred to in subclause (1) (c) is a species protection zone only for the duration of the forestry operation for the purposes of which the survey referred to in subclause (1) (c) was carried out or for the remainder of the forestry operation in the course of which the koala was found.
- (4) An area referred to in subclause (1) (c) is no longer a species protection zone if the koala (or all the koalas) have left the area. However, if the koala or koalas move to another tree (whether or not within 30 metres of the tree in which they were first found), any area within 30 metres of that tree may also be a species protection zone under this clause for the remainder of the forestry operation concerned.

Note: Although an area referred to in subclause (1) (c) is no longer a species protection zone when the koala or koalas are no longer in the tree on which the zone was centred, the tree itself may still be protected under Part 3.4 if 40 or more koala scats were found under it in the survey preceding the relevant operation.

251. Species protection zones for the Pilliga mouse (*Pseudomys pilligaensis*)

- (1) Any area of potential habitat for the Pilliga Mouse within 200 metres of a record of a Pilliga mouse is a species protection zone for the Pilliga Mouse.
- (2) A species protection zone for the Pilliga Mouse does not extend beyond 200 metres from the relevant record, even if the potential habitat continues beyond that distance.

- (3) For the purposes of this clause, “potential habitat for the Pilliga Mouse” means any single area of at least 0.2 hectares in which:
 - (a) more than 30% of the projected foliage cover (that is, the area of ground covered by projecting the outline of the foliage vertically to the ground) consists of mainly sclerophyllous and semi sclerophyllous shrubs (being woody plants with many stems arising at or near the base), and
 - (b) the sclerophyllous and semi sclerophyllous shrubs (except for broombush) are generally less than 3 metres high at maturity.
- (4) To avoid doubt, if less than 0.2 hectares of an area of potential habitat for the Pilliga Mouse is within 200 metres of the relevant record, then no part of the area is a species protection zone in relation to that record.

252. Species protection zones for the spotted-tailed quoll (*Dasyurus maculatus*)

Species protection zones to be designated around dens and latrine sites of spotted-tailed quoll

- (1) Forests NSW is to designate areas around spotted-tailed quoll latrine sites, spotted-tailed quoll maternal dens and spotted-tailed quoll permanent dens as species protection zones for the spotted-tailed quoll in accordance with this clause.
- (2) For each spotted-tailed quoll maternal den and spotted-tailed quoll latrine site, an area of at least 12 hectares containing the maternal den or latrine site is to be designated as a species protection zone.
- (3) Forests NSW must ensure that the maternal den or the latrine site is at least 120 metres from the boundary of the area that it designates as the species protection zone.
- (4) Subject to subclause (3), when determining the area of land to be designated as a species protection zone that is to contain the maternal den or the latrine site, Forests NSW must endeavour to include within the zone:
 - (a) any other records of the spotted-tailed quoll (not being records of another maternal den or latrine site or a permanent den) that are located within 300 metres of the maternal den or latrine site, and
 - (b) land that extends to the boundary of any drainage feature protection zone that is within 300 metres of the den or site concerned.
- (5) For each spotted-tailed quoll permanent den, an area of at least 3.5 hectares is to be designated as a species protection zone.
- (6) Forests NSW must ensure that the permanent den is at least 60 metres from the boundary of the area it designates as the species protection zone.
- (7) Subject to subclause (6), when determining the area of land to be designated as the species protection zone for the spotted-tailed quoll that contains the permanent den, Forests NSW must endeavour to include within the zone:
 - (a) any other records of the spotted-tailed quoll (not being records of another permanent den or a maternal den or latrine site) that are located within 150 metres of the permanent den, and
 - (b) land that extends to the boundary of a drainage feature protection zone that is within 150 metres of the permanent den.

- (8) Nothing in this clause requires Forests NSW to designate an area as a species protection zone that is more than 12 hectares (in the case of a zone containing a maternal den or latrine site) or more than 3.5 hectares (in the case of a zone containing a permanent den).
- (9) In particular, Forests NSW is not required to increase the area of a species protection zone for the spotted-tailed quoll to more than 12 hectares or 3.5 hectares (as the case may require) in order to give effect to the requirements of both paragraphs (a) and (b) of subclause (4) or the requirements of both paragraphs (a) and (b) of subclause (7), respectively.
- (10) Subclauses (4) and (7) do not require Forests NSW to include land within the species protection zone concerned if its inclusion would make the carrying out of logging or other forestry operations in the vicinity of the zone impracticable.
- (11) Nothing in subclauses (4) (b) and (7) (b) prevents Forests NSW from including within a species protection zone for the spotted-tailed quoll land within a drainage feature protection zone (that is, the species protection zone may extend into a drainage feature protection zone).

When must species protection zones for spotted-tailed quoll be designated?

- (12) Forests NSW must ensure that any forestry operation for which a site specific operational plan is required does not come within 170 metres of a spotted-tailed quoll maternal den or latrine site or within 110 metres of a spotted-tailed quoll permanent den unless and until that den or site is contained within a species protection zone designated in accordance with this clause.
- (13) Once an area has been designated as a species protection zone for the spotted-tailed quoll under this clause, it remains a species protection zone (and, accordingly, an environmentally significant area) for the remainder of the term of this approval. Even if further records of spotted-tailed quoll are found in the vicinity of the zone, the shape of the zone is not to be altered by Forests NSW.
- (14) In this clause:

“spotted-tailed quoll latrine site” means any circular area of land with a radius of 5 metres in which records of three or more spotted-tailed quoll scats (other than a record of a scat on a road) are located;

“spotted-tailed quoll maternal den” means any site (such as a hollow log, underground burrow, rock crevice or overhanging rock) in relation to which there is a record or records that it is or has been occupied:

- (a) by a female spotted-tailed quoll with young, or
- (b) by juvenile spotted-tailed quoll after being weaned, but not yet independent of their mother, or
- (c) by a spotted-tailed quoll between June to November in any year unless it is established (to DECCW’s satisfaction, as recorded in writing) that the quoll is a male or that the female quoll using the den does not have any young;

“spotted-tailed quoll permanent den” means any site (such as a hollow log, underground burrow, rock crevice or overhanging rock) in relation to which there is a record or records that it is or has been occupied by spotted-tailed quoll, unless there is evidence (that can be made available to DECCW) that the den was used only by a transient individual.

253. Species protection zones for the squirrel glider (*Petaurus norfolcensis*)

When must species protection zones for squirrel glider be designated?

- (1) Forests NSW must designate an area or areas of land as a species protection zone or zones for the squirrel glider in accordance with this clause before a forestry operation for which a site specific operational plan is required is commenced in a compartment or other tract of land if:
 - (a) there is a record or records of the squirrel glider within the compartment or other tract of land or within 150 metres of it, and
 - (b) that record or all those records have not already been included, or have not already been considered for inclusion, in a planning area or species protection zone for the squirrel glider under this clause.

Designation of planning area

- (2) For the purpose of designating an area or areas as a species protection zone or zones for the squirrel glider, Forests NSW must first designate as a planning area a circular area of land, within the compartment or other tract of land concerned (or within the compartment or other tract and the land surrounding it) and having a radius of 250 metres.
- (3) If there is only one record of the squirrel glider located in the compartment or other tract of land (or within 150 metres of it), the planning area is to be centred on that record. If there is more than one such record, then the planning area is to be centred on a point that is as close to equidistant as possible from each of the records, or of a majority of the records.
- (4) If not all the records of the squirrel glider are encompassed by a planning area as described in subclauses (2) and (3), then Forests NSW is to request and consider advice from DECCW on the land to be included in the planning area.
- (5) Forests NSW may designate land as a planning area in accordance with DECCW's advice even if the planning area does not comply with subclauses (2) and (3) or even if more than one planning area results.
- (6) However, Forests NSW is not required to consider giving effect to DECCW's advice if that advice would result in a planning area or areas having a total area of more than 20 hectares.
- (7) Despite subclause (4), if the records that cannot be encompassed in a single circular planning area (of 250 metres radius) as described in subclauses (2) and (3) include records of one or more squirrel glider dens, Forests NSW may (whether or not it also seeks DECCW's advice):
 - (a) designate a single area of land (even though not circular) as the planning area that encompass records of all dens and other squirrel glider records, as long as the area is at least 20 hectares, or
 - (b) for each record of a squirrel glider den that is not within the single circular planning area as described in subclauses (2) and (3), designate an area having a radius of at least 150 metres and centred on the record as a species protection zone for the squirrel glider.
- (8) If the only relevant record of a squirrel glider is located on land that is not Crown-timber land or land reserved under the *National Parks and Wildlife Act 1974* (being a record within 150 metres of the compartment or other tract of land in which the forestry

operation is to be undertaken), then Forests NSW is to designate land that is Crown-timber land or land reserved under the *National Parks and Wildlife Act 1974*, as close to the record as possible, as the planning area (ensuring that land within the compartment or other tract is also included in the planning area).

Designation of species protection zones for squirrel glider

- (9) Forests NSW must designate species protection zones for the squirrel glider within the planning area (or areas) so that their total area is at least 8 hectares (excluding the area of any species protection zone referred to in subclause (7) (b)), in accordance with subclauses (10) to (13).
- (10) Forests NSW must ensure that each record of a squirrel glider den within the planning area or areas is contained within a species protection zone.
- (11) Subject to subclause (10), when determining the area or areas of land to be designated as a species protection zone or zones for the squirrel glider, Forests NSW must endeavour to include within the zone or zones:
 - (a) as many records of the squirrel glider as possible (in addition to any records of dens), and
 - (b) land that extends to the boundary of any drainage feature protection zone.

(Paragraph (b) does not prevent Forests NSW including within a species protection zone land within the drainage feature protection zone.)
- (12) Forests NSW must also endeavour to designate areas of land that have a low boundary to area ratio as species protection zones for the squirrel glider, avoiding long and linear strips.
- (13) Nothing in subclauses (11) and (12) requires Forests NSW to designate an area or areas of land as a species protection zone or zones for the squirrel glider that together have a total area of more than 8 hectares. In particular, Forests NSW is not required to increase the extent of species protection zones for the squirrel glider in order to give effect to all of the respective requirements of subclause (11) (a), subclause (11) (b) and subclause (12). If the requirements of these provisions conflict in the relevant circumstances, then it is a matter for Forests NSW to determine which requirements it will comply with.
- (14) If a forestry operation does not require a site specific operational plan to be prepared before it is undertaken in a compartment or other tract of land, then the most recent species protection zones for the squirrel glider within that compartment or other tract of land that have been designated in accordance with this clause are species protection zones for the purpose of the operation in that compartment or other tract of land.
- (15) To avoid doubt, even though a species protection zone or zones for the squirrel glider have been designated within a compartment or other tract of land in accordance with this clause before a forestry operation is commenced in the compartment or tract, if a new record is found or made within the compartment or tract (or within 150 metres of it), then the species protection zone or zones for the squirrel glider may need to be re-designated in accordance with this clause before a subsequent operation is commenced in the compartment or tract.

254. Species protection zones for the barking owl within the barking owl nest and roost zone

- (1) This clause applies only to land within the barking owl nest and roost zone.
- (2) To avoid doubt, this clause does not affect the operation of clause 246 in its application to barking owl major roosts and barking owl nests. (The species protection zones under this clause are additional to those described in clause 246).
- (3) Any area of land within 30 metres of a tree in which a barking owl has been found in a survey under Division 2 of Part 3.3, or in the course of a forestry operation, is a species protection zone for the barking owl.
- (4) However, such an area ceases to be a species protection zone if the barking owl (or all the barking owls) leave the area and, in any case, ceases to be a species protection zone on the completion of the forestry operation for which the survey under Division 2 of Part 3.3 was carried out or in the course of which the barking owl was found (as the case may be).
- (5) To avoid doubt, if a barking owl or owls leave an area that is a species protection zone during a forestry operation, any other area within 30 metres of a tree to which the owl (or an owl) may have moved may become a species protection zone under this clause for the remainder of the operation.
- (6) Any mature stand of trees with a tall (that is, more than 10 metres high), closed canopy that is dominated by belah trees (being trees of the species *Casuarina cristata*) with diameters at breast height over bark of more than 200 mm is a species protection zone for the barking owl.

Note: A mature stand that meets the description above is generally larger than 0.5 ha in size, but may be as small as 0.1 ha if sufficiently regular in shape to enable a closed canopy dominated by belah trees at an older growth stage to be identified. Such a stand may contain trees of species such as wilga and remnant Pilliga box and poplar box trees that are also used by roosting owls. Because of their closed canopy comprised mainly of older Belah trees, these stands are fairly open underneath and easy to walk through.

- (7) In this clause, “barking owl nest and roost zone” means:
 - (a) the State forests of Baradine, Bibblewindi, Coomore Creek, Culgoora, Cumbil, Denobollie, Etoo, Euligal, Jacks Creek, Janewindi, Merriwindi, Minnon, Orr, Pilliga East, Pilliga West, Quegobla, Timmallallie, Waubebunga, Wittenbra, Yearinan, and
 - (b) any other State forest in which a survey for the barking owl is carried out in accordance with the requirements set out in Schedule 7.
- (8) A species protection zone for the barking owl designated under clause 255 for land outside the barking owl nest and roost zone is also (while it remains current) a species protection zone for the barking owl within the barking owl nest and roost zone to the extent that it lies within that zone.

255. Species protection zones for the barking owl outside the barking owl nest and roost zone

Land outside barking owl nest and roost zone

- (1) This clause applies to any compartment or other tract of land outside the barking owl nest and roost zone within the meaning of clause 254.

- (2) This clause does not affect the operation of clause 246 in its application to barking owl major roosts and barking owl nests. (The species protection zones under this clause are additional to those described in clause 246.)

When are species protection zones for the barking owl to be designated?

- (3) Forests NSW must designate an area or areas of land as a species protection zone or zones for the barking owl in accordance with this clause before a forestry operation for which a site specific operational plan is required is commenced in a compartment or other tract of land if:
- (a) there is a record or records of the barking owl within the compartment or tract, or less than 2 kilometres from it, and
 - (b) that record, or all those records, have not already been included, or considered for inclusion, in a planning area or species protection zone for the barking owl designated in accordance with this clause.

(For the purposes of this subclause, it does not matter that records of the barking owl have been included in a species protection zone or planning area because of a previous operation in the compartment or tract (or another compartment or tract) or because of the proposed operation.)

Designation of planning area

- (4) For the purpose of designating an area or areas of land as a species protection zone or zones for the barking owl, Forests NSW must first designate, as a planning area, a circular area of land having a radius of at least 2 kilometres. The location of the planning area, in relation to the compartment or other tract of land, is to be determined according to whether or not a targeted survey for the barking owl has been carried out for the compartment or tract within the 5 years preceding the forestry operation, as provided for in subclauses (5) to (12).

Planning area where targeted survey for barking owl

- (5) If a targeted survey for the barking owl has been carried out for the compartment or other tract of land in the preceding 5 years and there is only one record of the barking owl, located in the compartment or tract, or less than 2 kilometres from it, the planning area must be centred on that record.
- (6) Despite subclauses (4) and (5), if the only record is more than 400 metres from State forest or other Crown land, then a single area of 1300 hectares within State forest or other Crown land (whether or not circular) that is closest to the record must be designated as the planning area.
- (7) If a targeted survey for the barking owl has been carried out for the compartment or other tract of land in the preceding 5 years and there is more than one record of the barking owl located in the compartment or tract or on land less than 2 kilometres from it (or both), the planning area must be centred on a point as close to equidistant as possible from each record, or a majority of the records.
- (8) Despite subclauses (4) and (7), if all the records are more than 400 metres from State forest or other Crown land, then a single area of 1300 hectares within State forest or other Crown land (whether or not circular) that is closest to the majority of the records must be designated as the planning area.
- (9) If at least two records of the barking owl that are located on land described in subclause (7) are more than 4 kilometres from each other (that is, if not all the barking

owl records can be encompassed in a circular planning area having a radius of 2 kilometres as described in the subclause):

- (a) Forests NSW is instead to include all records of barking owl major roosts and barking owl nests (and their surrounding species protection zones) within a planning area having a radius of 2 kilometres, even though such a planning area does not comply with subclause (7), and
 - (b) if it is not possible to include all such records (and their surrounding species protection zones) within such a planning area, and in any other case, Forests NSW is to request and consider DECCW's advice on the land to be included in the planning area.
- (10) Forests NSW may designate an area of land as a planning area in accordance with DECCW's advice even if that planning area does not comply with subclauses (4) and (7) or even if more than one planning area results.
- (11) However, Forests NSW is not required to consider giving effect to DECCW's advice if the total area of the resulting planning area or areas would be more than 1300 hectares.

Planning area where no targeted survey for barking owl

- (12) If a targeted survey for the barking owl has not been carried out for the compartment or other tract of land in the preceding 5 years, then the centre of the planning area must be the centre of the compartment or tract (in so far as this can be determined).

Designation of species protection zones for barking owl

- (13) Following its designation of land as a planning area or areas, Forests NSW must designate land within that area or those areas as a species protection zone or zones for the barking owl so that the total area of those zones is at least 300 hectares. Forests NSW must determine what land is to be included in a species protection zone in accordance with subclauses (14), (15) and (16).
- (14) Forests NSW must ensure that each record of a barking owl major roost and barking owl nest (and its surrounding protection zone) within the planning area or areas is contained within a species protection zone designated under this clause for the barking owl.
- (15) When determining the area or areas of land to designate as a species protection zone or zones for the barking owl, Forests NSW must endeavour to include within each zone land that extends to the boundary of a drainage feature protection zone. (Nothing prevents Forests NSW including, within a species protection zone, land within the drainage feature protection zone itself if that land is within the planning area or areas.)
- (16) Subject to subclauses (14) and (15), Forests NSW must also:
- (a) include within a species protection zone or zones for the barking owl as many records of the barking owl (such as records of pellets, calls or sightings) as possible (in addition to the records of the barking owl major roosts and nests referred to in subclause (14)), and
 - (b) avoid designating as a species protection zone an area that has a high boundary to area ratio (such as a long and linear strip), and
 - (c) avoid including any substantial area of heath within a species protection zone (in so far as the vegetation or forest types within the planning area allow).

- (17) Nothing in subclauses (15) and (16) requires Forests NSW to designate more than 300 hectares of land as a species protection zone or zones for the barking owl (including the area of any species protection zone surrounding a record of a barking owl major roost or barking owl nest included in a zone designated under this clause).
- (18) In particular, Forests NSW is not required to increase the extent of a species protection zone or zones for the barking owl under this clause (so that their area exceeds 300 hectares) in order to give effect to all of the respective requirements of subclause (15) and subclause (16). If the requirements of paragraphs (a), (b) and (c) of subclause (16) conflict, then it is a matter for Forests NSW to determine which requirement it will comply with.

Revision of species protection zones

- (19) If some, but not all, relevant records of the barking owl (as described in subclause (3)) have been included, or considered for inclusion, in a planning area or species protection zone for the barking owl in accordance with this clause, Forests NSW is required to designate a species protection zone for the barking owl only in relation to the new records before commencing the relevant forestry operation.
- (20) However, Forests NSW may re-designate the species protection zone or zones for the barking owl in accordance with this clause in relation to all relevant records (as described in subclause (3)) before commencing the forestry operation.

Species protection zones where no site specific operational plan required

- (21) If a forestry operation does not require a site specific operational plan to be prepared before it is commenced in a compartment or other tract of land, then the most recent species protection zones for the barking owl designated in accordance with this clause that lie, whether wholly or partially, within the compartment or tract, are species protection zones for the purposes of that operation in the compartment or tract.

Interpretation

- (22) In this clause:
- (a) a reference to Crown land is a reference to Crown-timber land or land reserved under the *National Parks and Wildlife Act 1974*, and
 - (b) a reference to a barking owl major roost, barking owl nest or its surrounding species protection zone is a reference to those matters within the meaning of clause 246.
- (23) In this clause, a reference to a targeted survey for the barking owl for a compartment or other tract of land is a reference to a targeted nocturnal call playback survey as described in Part 2 of Schedule 5 for that compartment or other tract of land carried out for the barking owl (as if the barking owl were a target species referred to in that Part).
- (24) For the purposes of this clause, a record of the barking owl is taken to have been considered for inclusion in a planning area or species protection zone for the barking owl if such a zone or planning area has been designated because of that record (wholly or partially), whether or not the record is located within the planning area or zone.

Accordingly, if a species protection zone for the barking owl has been designated within a compartment because of a record that lies outside the compartment (for example, in circumstances described in subclause (12)), then that record is taken to have been considered for inclusion in that species protection zone for the barking owl. If a forestry operation is later undertaken in the tract of land on which the record is

located, no new planning area or species protection zone for the barking owl is required because of it.

256. Species protection zones for the masked owl

- (1) This clause does not affect the operation of clause 246 in its application to masked owl roosts and masked owl nests. (The species protection zones under this clause are additional to those described in clause 246.)

When are species protection zones for the masked owl to be designated?

- (2) Forests NSW must designate an area or areas of land as a species protection zone or zones for the masked owl in accordance with this clause before a forestry operation for which a site specific operational plan is required is commenced in a compartment or other tract of land if:
- (a) there is a record or records of the masked owl within the compartment or tract, or less than 2 kilometres from it, and
 - (b) that record, or all those records, have not already been included, or considered for inclusion, in a planning area or species protection zone for the masked owl in accordance with this clause.

(For the purposes of this subclause, it does not matter that records of the masked owl have been included in a species protection zone or planning area because of a previous operation in the compartment or tract (or another compartment or tract) or because of the proposed operation.)

Designation of planning area

- (3) For the purposes of designating an area or areas of land as a species protection zone or zones for the masked owl, Forests NSW must first designate, as a planning area, a circular area of land having a radius of at least 2 kilometres. The location of the planning area, in relation to the compartment or other tract of land, is to be determined according to whether or not a targeted survey for the masked owl has been carried out for the compartment or tract within the 5 years preceding the forestry operation, as provided for in subclauses (4) to (11).

Planning area where targeted survey for masked owl

- (4) If a targeted survey for the masked owl has been carried out for the compartment or other tract of land in the preceding 5 years and there is only one record of the masked owl, located in the compartment or tract, or less than 2 kilometres from it, the planning area must be centred on that record.
- (5) Despite subclauses (3) and (4), if the only record is more than 400 metres from State forest or other Crown land, then a single area of 1300 hectares within State forest or other Crown land (whether or not circular) that is closest to the record must be designated as the planning area.
- (6) If a targeted survey for the masked owl has been carried out for the compartment or other tract of land in the preceding 5 years and there is more than one record of the masked owl located in the compartment or tract or on land less than 2 kilometres from it (or both), the planning area must be centred on a point as close to equidistant as possible from each record, or a majority of the records.
- (7) Despite subclauses (3) and (6), if all the records are more than 400 metres from State forest or other Crown land, then a single area of 1300 hectares within State forest or

other Crown land (whether or not circular) that is closest to the majority of the records must be designated as the planning area.

- (8) If at least two records of the masked owl that are located on land described in subclause (6) are more than 4 kilometres from each other (that is, if not all the masked owl records can be encompassed in a circular planning area having a radius of 2 kilometres as described in the subclause):
 - (a) Forests NSW is instead to include all records of masked owl roosts and masked owl nests (and their surrounding species protection zones) within a planning area having a radius of 2 kilometres, even though such a planning area does not comply with subclause (6), and
 - (b) if it is not possible to include all such records (and their surrounding species protection zones) within such a planning area, and in any other case, Forests NSW is to request and consider DECCW's advice on the land to be included in the planning area.
- (9) Forests NSW may designate an area of land as a planning area in accordance with DECCW's advice even if that planning area does not comply with subclauses (3) and (6) or even if more than one planning area results.
- (10) However, Forests NSW is not required to consider giving effect to DECCW's advice if the total area of the resulting planning area or areas would be more than 1300 hectares.

Planning area where no targeted survey for masked owl

- (11) If a targeted survey for the masked owl has not been carried out for the compartment or other tract of land in the preceding 5 years, then the centre of the planning area must be the centre of the compartment or tract (in so far as this can be determined).

Designation of species protection zones for masked owl

- (12) Following its designation of land as a planning area or areas, Forests NSW must designate land within that area or those areas as a species protection zone or zones for the masked owl so that the total area of those zones is at least 300 hectares. Forests NSW must determine what land is to be included in a species protection zone in accordance with subclauses (13), (14) and (15).
- (13) Forests NSW must ensure that each record of a masked owl roost and masked owl nest (and its surrounding protection zone) within the planning area or areas is contained within a species protection zone designated under this clause for the masked owl.
- (14) When determining the area or areas of land to designate as a species protection zone or zones for the masked owl, Forests NSW must endeavour to include within each zone land that extends to the boundary of a drainage feature protection zone. (Nothing prevents Forests NSW including, within a species protection zone, land within the drainage feature protection zone itself if that land is within the planning area or areas.)
- (15) Subject to subclauses (13) and (14), Forests NSW must also:
 - (a) include within a species protection zone or zones for the masked owl as many records of the masked owl (such as records of pellets, calls or sightings) as possible (in addition to the records of the masked owl roosts and nests referred to in subclause (13)), and

- (b) avoid designating as a species protection zone an area that has a high boundary to area ratio (such as a long and linear strip), and
 - (c) avoid including any substantial area of heath within a species protection zone (in so far as the vegetation or forest types within the planning area allow).
- (16) Nothing in subclauses (14) and (15) requires Forests NSW to designate more than 300 hectares of land as a species protection zone or zones for the masked owl (including the area of any species protection zone surrounding a record of a masked owl roost or masked owl nest included in a zone designated under this clause).
- (17) In particular, Forests NSW is not required to increase the extent of a species protection zone or zones for the masked owl under this clause (so that their area exceeds 300 hectares) in order to give effect to all of the respective requirements of subclause (14) and subclause (15). If the requirements of paragraphs (a), (b) and (c) of subclause (15) conflict, then it is a matter for Forests NSW to determine which requirement it will comply with.

Revision of species protection zones

- (18) If some, but not all, relevant records of the masked owl (as described in subclause (2)) have been included, or considered for inclusion, in a planning area or species protection zone for the masked owl in accordance with this clause, Forests NSW is required to designate a species protection zone for the masked owl only in relation to the new records before commencing the relevant forestry operation.
- (19) However, Forests NSW may re-designate the species protection zone or zones for the masked owl in accordance with this clause in relation to all relevant records (as described in subclause (2)) before commencing the forestry operation.

Species protection zones where no site specific operational plan required

- (20) If a forestry operation does not require a site specific operational plan to be prepared before it is commenced in a compartment or other tract of land, then the most recent species protection zones for the masked owl designated in accordance with this clause that lie, whether wholly or partially, within the compartment or tract, are species protection zones for the purposes of that operation in the compartment or tract.

Interpretation

- (21) In this clause:
- (a) a reference to Crown land is a reference to Crown-timber land or land reserved under the National Parks and Wildlife Act 1974, and
 - (b) a reference to a masked owl roost, masked owl nest or its surrounding species protection zone is a reference to those matters within the meaning of clause 246.
- (22) In this clause, a reference to a targeted survey for the masked owl for the compartment or other tract of land is a reference to a targeted nocturnal call playback survey as described in Part 2 of Schedule 5 for that compartment or other tract of land carried out for the masked owl (as if the masked owl were a target species referred to in that Part).
- (23) For the purposes of this clause, a record of the masked owl is taken to have been considered for inclusion in a planning area or a species protection zone for the masked owl if such a zone or planning area has been designated because of that record (wholly or partially), whether or not the record is located within the planning area or zone.

Accordingly, if a species protection zone for the masked owl has been designated within a compartment because of a record that lies outside the compartment (for

example, in circumstances described in subclause (11)), then that record is taken to have been considered for inclusion in that species protection zone for the masked owl. If a forestry operation is later undertaken in the tract of land that includes that record, no new planning area or species protection zone for the masked owl is required because of it.

257. Species protection zones for barking owl and masked owl may be same

Forests NSW may designate the same area as a species protection zone for the barking owl and for the masked owl under clauses 255 and 256 respectively, subject to the requirements of each clause.

258. Species protection zones for plants

Any area of land within 20 metres of a record of any of the following species of plants is a species protection zone for that species:

- (a) *Cadellia pentastylis* (ooline),
- (b) *Homoranthus darwinioides*,
- (c) *Indigofera efoliata* (leafless indigo),
- (d) *Platyzoma microphyllum* (braid fern),
- (e) *Zieria ingramii* (Keith's zieria).

259. Interim species protection zones for plants

Note: A species management plan or a monitoring plan is required to be developed by FNSW for each of the species of plant referred to in this clause. It is envisaged that the IFOA will be amended when each plan has been approved by DECCW to require FNSW to give effect to those plans. At the same time, this clause may be amended or omitted.

- (1) During any forestry operation for which a site specific operational plan is required, the areas of land described in, or designated by Forests NSW in accordance with, subclauses (2) and (4) are species protection zones for the species of plant concerned.
- (2) Any area of land within 20 metres of an individual of any of the following species of plant that is found during a traverse survey or targeted survey under Division 3 or Division 4 of Part 3.2 for the relevant compartment or other tract of land or the survey for purposes of the forestry operation under Division 2 of Part 3.3, or during the operation, is a species protection zone:
 - (a) *Acacia jucunda*,
 - (b) *Phebalium glandulosum* subsp. *eglandulosum*,
 - (c) *Pomaderris queenslandica*.
- (3) To avoid doubt, an area of land ceases to be a species protection zone under subclause (2) if the individual plant around which it is centred dies. (However, the area may be part of a species protection zone centred on another individual plant of the same species.)
- (4) Forests NSW is to designate areas of land as species protection zones for *Bertya* sp. *A Cobar-Coolabah* (also named *Bertya opponens*), so that 90% of individuals of that species, found during a traverse survey under Division 3 of Part 3.2 for the relevant compartment or other tract of land or the survey for the purposes of the forestry operation under Division 2 of Part 3.3, or during the operation, are within a species protection zone and at least 20 metres from the boundary of that zone.

(5) Any area within 20 metres of a record of the following species of plant (including an individual found during a forestry operation) is a species protection zone for the species:

- (a) *Pterostylis cobarensis*,
- (b) *Swainsona recta*,
- (c) *Swainsona sericea*,
- (d) *Diuris tricolor*.

260. Box Gum Woodland Endangered Ecological Community - ESAs

(1) In this clause:

“Box Gum Woodland EEC” means the endangered ecological community of White Box Yellow Box Blakely’s Red Gum Woodland (as described in the final determination of the Scientific Committee under the *Threatened Species Conservation Act 1995* [Government Gazette of 15 March 2002, p. 1648]);

“Box Gum Woodland EEC Part 1 Identification Guidelines” means the guidelines set out in Part 1 of Schedule 8; and

“Box Gum Woodland EEC Part 2 Identification Guidelines” means the guidelines set out in Part 2 of Schedule 8.

(2) Any single area of land of 0.5 hectares or more that consists of Box Gum Woodland EEC according to both:

- (a) the Box Gum Woodland EEC Part 1 Identification Guidelines, and
- (b) the Box Gum Woodland EEC Part 2 Identification Guidelines,

is a species protection zone for Part 1 Box Gum Woodland EEC.

(3) Any single area of land of 0.5 hectares or more that:

- (a) consists of Box Gum Woodland EEC according to the Box Gum Woodland EEC Part 2 Identification Guidelines, and
- (b) is not also a species protection zone for Part 1 Box Gum Woodland EEC (under subclause (2)),

is an environmentally significant area for Part 2 Box Gum Woodland EEC for the purposes of this approval.

(4) Forests NSW is to make a written record of the extent and location of any species protection zone for Part 1 Box Gum Woodland EEC and any environmentally significant area for Part 2 Box Gum Woodland EEC that it identifies.

261. Inland Grey Box Woodland Endangered Ecological Community – species protection zones

(1) In this clause:

“Inland Grey Box Woodland EEC” means the endangered ecological community of Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penplain, Nandewar and Brigalow Belt South Bioregions (as described in the final determination of the

Scientific Committee under the Threatened Species Conservation Act 1995 [Government Gazette of 27 April 2007, p. 2453]; and

“Inland Grey Box Woodland EEC identification guidelines” means the guidelines set out in Part 3 of Schedule 8.

- (2) Any single area of land of 0.5 hectares or more that consists of Inland Grey Box Woodland EEC according to the Inland Grey Box Woodland EEC identification guidelines is a species protection zone for Inland Grey Box Woodland EEC.
- (3) Forests NSW is to make a written record of the extent and location of any species protection zone for Inland Grey Box Woodland EEC that it identifies.

262. Records to be kept of Box Gum Woodland EECs and Inland Grey Box Woodland EECs

Whenever Forests NSW identifies a species protection zone for Part 1 Box Gum Woodland EEC, an environmentally significant area for Part 2 Box Gum Woodland EEC or a species protection zone for Inland Grey Box Woodland EEC and records its extent and location, Forests NSW is to ensure that it keeps that record for the remainder of the term of this approval.

PART 3.7 – RESTRICTED OPERATIONS IN ENVIRONMENTALLY SIGNIFICANT AREAS

Division 1 – Breaches of Part

263. Knowledge of environmentally significant areas

- (1) Nothing done in an environmentally significant area, in the course of a forestry operation, gives rise to a breach of this Part if, despite compliance with Part 3.2 and Part 3.3, Forests NSW (or other person involved in the forestry operation) did not know the area was an environmentally significant area.
- (2) However, if Forests NSW becomes aware, during the course of a forestry operation, that the operation has encroached upon an environmentally significant area, Forests NSW is to ensure that the operation encroaches no further into the area.
- (3) If a spotted-tailed quoll den or latrine site, or a record of a squirrel glider or barking owl or masked owl is found or made during the course of an operation (being a record that would, if Forests NSW had been aware of it earlier, required the designation of a species protection zone or consideration for inclusion in such a zone or planning area), Forests NSW is to use its best endeavours to protect the record from any adverse impact of the operation.

264. Environmentally significant areas only partially within compartment

Without limiting the operation of clause 263, nothing done in an environmentally significant area that lies only partially within a compartment or other tract of land in which a forestry operation is carried out gives rise to a breach of this Part if the environmentally significant area is:

- (a) a species protection zone for the spotted-tailed quoll and the maternal den or latrine site to which the zone relates is more than 120 metres from the compartment or other

- tract of land or the permanent den to which the zone relates is more than 60 metres from the compartment or other tract of land, or
- (b) a species protection zone for the squirrel glider and no record of the squirrel glider within the zone is within 150 metres of the compartment or other tract of land, or
 - (c) a protection zone around an area of heath, rocky outcrops or cliffs or a dam or tank, and the area of heath, the rocky outcrops or cliffs or the dam or tank, respectively, lies wholly outside the compartment or other tract of land.

265. Harm to living plants within species protection zones prohibited

Despite any other provision in this Part, a person must not knowingly destroy, or allow to be destroyed, a living individual of a species of plant located within a species protection zone for that species (as described in clause 258 or 259) for the purposes of, or in the course of, carrying out a forestry operation in the zone.

Division 2 – Logging operations in environmentally significant areas

Note: "Logging operations" refers to the logging operations described in clause 5. The term generally includes a thinning operation where one of its purposes is timber production.

266. Certain logging operations excluded from operation of Division

- (1) This Division does not apply to:
 - (a) the harvesting of branches or stems of trees for didgeridoo production, and
 - (b) the collection of firewood from the floor of the forest,to the extent that either operation is a logging operation.
- (2) To avoid doubt, this Division applies to thinning or any other on-going forest management operation to the extent to which timber cut in the operation is removed for the purpose of its sale or use in timber products. However, the Division does not restrict an operation of either of the following kinds (even though timber products may be produced from that operation) in the environmentally significant area in which the operation is carried out:
 - (a) the felling of trees for pest, weed or disease control, in accordance with an approval of DECCW under clause 279,
 - (b) the thinning of dense cypress re-growth, in accordance with an approval of DECCW under clause 280.

267. Logging operations prohibited in environmentally significant areas

- (1) A logging operation must not be carried out in an environmentally significant area.
- (2) To avoid doubt, a log dump must not be established, maintained or up-graded in an environmentally significant area for the purpose of (or as part of) a logging operation.

268. Felling of trees into environmentally significant areas and their removal

- (1) A tree (or part of a tree) must not be felled into an environmentally significant area in a logging operation. However, this subclause is not breached where a tree is accidentally felled into an environmentally significant area.

- (2) A tree (or part of a tree) that has been felled into an environmentally significant area in a logging operation must not be removed, unless the tree or part has been accidentally felled into that area.
- (3) Only a mechanical harvester may be used to remove a tree (or part of a tree) that has been accidentally felled into an environmentally significant area. When a mechanical harvester is used to remove a tree (or part of a tree) from the environmentally significant area, it must be operated so that the tree (or the part) is lifted off the ground and removed from the area while wholly supported off the ground. The mechanical harvester's wheels or tracks must remain outside the environmentally significant area.

269. Logging operations in koala protection zones

- (1) Despite clause 267, a logging operation may be carried out in the outer 70 metres of a species protection zone around a koala high use area (as described in clause 250 (1) (b)). However, timber may not be harvested from trees of species belonging to the *Eucalyptus* or *Corymbia* genus in the logging operation and damage to such trees (and trees of species belonging to the genus *Angophora*) is to be avoided to the greatest extent practicable during the operation.
- (2) To avoid doubt, subclause (1) also authorises the removal or extraction of timber (including by snigging and whether cut within the outer 70 metres of the species protection zone or outside the species protection zone) via a route through the outer 70 metres of that zone.

Note: The construction, re-opening or up-grading of a road or bush track for the purpose of removing timber through a species protection zone around a koala high use area is not authorised under this clause. See clause 287.

- (3) A tree or part of a tree that has been accidentally felled into the inner 30 metres of a species protection zone around a koala high use area (in the course of a logging operation in the outer 70 metres of the zone) may be removed in accordance with clause 268. However, the wheels or tracks of a mechanical harvester used to remove the tree or part must remain within the outer 70 metres of the zone while doing so.
- (4) Despite clause 267, timber may be removed (including by snigging) via a route through a species protection zone around a tree in which a koala is found (as described in clause 250 (1) (c)), but only if no trees within the zone are felled or otherwise destroyed for that purpose. Damage to trees in the zone is to be avoided to the greatest extent practicable when snigging or forwarding.

270. Logging operations in Box Gum Woodland EECs

- (1) Despite clause 267, a logging operation to harvest timber from western ironbark trees, white cypress trees or bull oak trees (or any combination of these species) may be carried out in an environmentally significant area for Part 2 Box Gum Woodland EEC. Timber cut in the logging operation may be removed (including by snigging) via a route through the area.
- (2) Despite clause 267, a logging operation (other than a miscellaneous forestry operation or an operation authorised under section 30I of the *Forestry Act 1916*) may be carried out in a species protection zone for Part 1 Box Gum Woodland EEC with DECCW's approval in writing. Timber cut in the logging operation may be removed via a route through the species protection zone.

- (3) However, any such logging operation (including the removal or extraction of timber) may be carried out only in accordance with any conditions imposed by DECCW as part of its approval.

Note: Timber cut outside an environmentally significant area for Part 2 Box Gum Woodland EEC or a species protection zone for Part 1 Box Gum Woodland EEC may be removed through the area or zone only in accordance with clause 271 or clause 272, respectively.

271. Extraction of timber through certain environmentally significant areas

- (1) This clause applies to the removal or extraction of timber, whether by snigging or forwarding, generally from the logging site (that is, the site at which the timber is felled) to a log dump. It applies to the following environmentally significant areas:
- (a) an area of heath of more than 0.2 hectares and its surrounding protection zone,
 - (b) a protection zone surrounding an area of rocky outcrops or cliffs,
 - (c) a Zone 3A ESA,
 - (d) an environmentally significant area for Part 2 Box Gum Woodland EEC.
- (2) Despite clause 267, timber cut on land outside an environmentally significant area to which this clause applies in a logging operation may be removed via a route (whether or not an existing extraction track) through the area, but only if:
- (a) there is no practicable alternative route available,
 - (b) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager of Forests NSW has authorised the use of the proposed route in writing and a copy of the report (and authorisation) has been forwarded to DECCW.
- (3) If there is a record of a threatened species on the proposed route, the route may be used only if DECCW has first approved the use of the route in writing (following the receipt of the report referred to in subclause (2) (b)).
- (4) Work may be done to construct, create or re-open an extraction track (for example, by clearing trees or other vegetation) if the authorisation by the regional manager referred to in subclause (2) (and the approval by DECCW referred to in subclause (3), if required) includes an authorisation to do so.
- (5) Forests NSW must ensure that all practicable measures are taken to minimise or mitigate any adverse effect on the environment of the removal of timber through the environmentally significant area, including any work done to construct, create or re-open an extraction track. Any conditions relating to minimising or mitigating any adverse impact of the work on the environment imposed by DECCW as part of an approval must be complied with.

Note: "Logging operations" involve the cutting and removal of timber as described in clause 5. The effect of the above clause is that removal of timber (or "extraction") through certain environmentally significant areas is not prohibited, despite the general prohibition on logging operations in clause 267. Division 5 deals with road construction and road re-opening, whether carried out at the same time as a logging operation or other forestry operation or as an independent operation.

272. Extraction of timber through species protection zones

- (1) This clause applies to the removal or extraction of timber, whether by snigging or forwarding, generally from the logging site (that is, the site at which the timber is felled) to a log dump. It applies to species protection zones other than:
 - (a) that part of a species protection zone referred to in clause 250 (1) (b) (that is, the zone around a koala high use area) within 70 metres of the outer boundary of the zone, and
 - (b) a species protection zone referred to in clause 250 (1) (c) (that is, any area within 30 metres of a tree in which a koala is found), and
 - (c) a species protection zone for Inland Grey Box Woodland EEC.

Note: The extraction of timber is prohibited in species protection zones for Inland Grey Box Woodland EEC. Only the removal of a tree accidentally felled into such a zone is allowed.

- (2) Despite clause 267, timber cut on land outside a species protection zone to which this clause applies in a logging operation may be removed via a route (whether or not an existing extraction track) through the protection zone, but only if:
 - (a) there is no practicable alternative route available, and
 - (b) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager has authorised the use of the proposed route in writing and forwarded a copy of the report (and authorisation) to DECCW, and
 - (c) DECCW has also approved the use of the proposed route in writing, following receipt of that report.
- (3) Work may be done to construct, create or re-open an extraction track (for example, by clearing trees or other vegetation) if DECCW's approval referred to in subclause (2) includes approval to do so.
- (4) The removal of timber through a species protection zone (including any work done to construct, create or re-open an extraction track) may be carried out only in accordance with the conditions (if any) imposed by DECCW as part of its approval, being conditions relating to minimising or mitigating any adverse impact on the environment.

273. Use of existing roads, bush tracks or fire trails to remove timber cut in logging operation

Despite clause 267, timber cut on land outside an environmentally significant area in a logging operation may be removed via a road, bush track or fire trail in the area if the road, track or trail was constructed before the granting of this approval or constructed in accordance with this approval.

This clause does not affect the operation of clause 271 or clause 272.

Division 3 – Forest products operations and similar forestry operations in environmentally significant areas

274. Harvesting of broombush (*Melaleuca uncinata*) restricted

- (1) An operation to harvest broombush (that is, *Melaleuca uncinata*) must not be carried out in an environmentally significant area, other than in an area of heath and its surrounding protection zone as provided by subclause (2).

- (2) An operation to harvest broombush may be carried out in an area of heath (and its surrounding protection zone) but only if:
 - (a) a site specific operational plan for the operation has been prepared and the operational map included in the plan shows the location of the broombush to be harvested, and
 - (b) the area of heath is located within land classified as Forest Management Zone 4.
- (3) Machinery (such as a truck or 4WD with a trailer) may enter and traverse the area of heath and its surrounding protection zone, if that is necessary to access the broombush that may be harvested or to remove the broombush that has been cut.

Note: See clause 237 which imposes restrictions on the harvesting of broombush generally. For example, broombush may be harvested only from shrubs of a certain height.

275. Harvesting of stems or branches for didgeridoos prohibited

An operation to harvest branches or stems of trees for didgeridoos or other products must not be carried out in an environmentally significant area.

276. Collection of firewood from floor of forest prohibited

- (1) Dry logs and other pieces of wood lying on the floor of the forest must not be collected for firewood (for either domestic or commercial purposes) from an environmentally significant area or from any area within 300 metres of records of any of the following species of animal:
 - (a) hooded robin (south-eastern form),
 - (b) border thick-tailed gecko,
 - (c) bush stone-curlew,
 - (d) malleefowl,
 - (e) five-clawed worm-skink,
 - (f) Pilliga mouse,
 - (g) spotted-tailed quoll.
- (2) This clause does not restrict the sale of residue timber (within the meaning of clause 33) for firewood.
- (3) In this clause, a reference to a dry log or other piece of wood is a reference to a log or other piece of wood from which the majority of the bark has been separated from the sapwood.

277. Forest products operations generally prohibited

- (1) This clause applies to forest products operations other than operations referred to in clause 274, 275 or 276.
- (2) A forest products operation to which this clause applies must not be carried out within an environmentally significant area except as provided by this clause.
- (3) Seeds may be collected from an environmentally significant area (other than a species protection zone for Inland Grey Box Woodland EEC).

- (4) Forests NSW may authorise an Aboriginal person to carry out a forest products operation in an environmentally significant area (other than a species protection zone for Inland Grey Box Woodland EEC), but only if:
 - (a) Forests NSW is of the opinion that there is no other land reasonably accessible to the Aboriginal person on which the relevant forest products (being products of trees, shrubs or other vegetation) may be harvested, and
 - (b) the scale and intensity of the harvesting to be authorised does not adversely affect the conservation value of the environmentally significant area.
- (5) This clause does not affect any native title rights and interests (within the meaning of the *Native Title Act 1993* of the Commonwealth) existing in relation to any land within an environmentally significant area.

Division 4 – On-going forest management operations in environmentally significant areas

Note: “On-going forest management operations” are on-going forest management operations described in clause 5. They include thinning, bush fire hazard reduction, grazing, bee-keeping, weed and pest control and other silvicultural activities including activities to manipulate or affect forest stand structure or composition by, for example, the use of fire. This Division restricts or prohibits the conduct of on-going forest management operations in environmentally significant areas.

278. Felling of trees for the purpose of on-going forest management operations generally prohibited

- (1) A tree in an environmentally significant area must not be felled, cut or destroyed in the course of, or for the purpose of, an on-going forest management operation, such as thinning, grazing or beekeeping.
- (2) A tree must not be felled into, or removed from, an environmentally significant area in the course of, or for the purpose of, an on-going forest management operation.
- (3) Despite subclauses (1) and (2), a thinning operation may be carried out in the outer 70 metres of a species protection zone around a koala high use area (as described in clause 250 (1) (b)). However, no trees of species belonging to the *Eucalyptus*, *Corymbia* or *Angophora* genus may be felled in the operation and damage to such trees is to be avoided to the greatest extent practicable during the operation.
- (4) Despite subclauses (1) and (2), an operation to thin stands of western ironbark trees, white cypress trees or bull oak may be carried out in an environmentally significant area for Part 2 Box Gum Woodland EEC.
- (5) Despite subclause (2), a tree of any cypress species may be cut using a brush cutter so that it falls into an environmentally significant area in the course of non-commercial thinning of cypress regrowth.

279. Tree felling allowed if for pest, weed or disease control

- (1) Despite clause 278, trees may be felled, cut or destroyed (including by burning) within an environmentally significant area (and removed from that area) for the purpose of assisting in the control of a pest, weed or disease (whether for the protection or rehabilitation of the environment or for the protection of timber resources).

- (2) An operation may be carried out under this clause even though timber in trees felled in the operation is removed for use in timber products. However, timber may not be harvested from trees of an ironbark species (other than western ironbark) or trees of a species belonging to the *Angophora* genus for use in timber products.
- (3) However, an operation may not be carried out under this clause without:
 - (a) in the case of a Zone 3A ESA, the authorisation in writing of a regional manager of Forests NSW, and
 - (b) in any other case, DECCW's approval in writing.
- (4) An operation under this clause for the control of a pest, weed or disease may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including conditions relating to access to the environmentally significant area and removal of any timber (or waste) from the area.
- (5) To avoid doubt, if pest, weed or disease control does not involve the felling or destruction of trees, it may be carried out in an environmentally significant area without approval under subclause (3). For example, pesticides, herbicides and insecticides may be applied in an environmentally significant area without DECCW's approval or a regional manager's authorisation.

280. Thinning dense cypress re-growth

- (1) Despite clause 278, a dense stand of cypress re-growth within an environmentally significant area may be thinned (including through the use of fire).
- (2) A thinning operation may be carried out under this clause even though timber in trees felled in the operation is removed for use in timber products.
- (3) However, an operation may not be carried out under this clause without:
 - (a) in the case of a Zone 3A ESA, the authorisation in writing of a regional manager of Forests NSW, and
 - (b) in any other case, DECCW's approval in writing.
- (4) Thinning under this clause may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including conditions relating to access to the stand of cypress re-growth and removal of any timber (or waste) from the environmentally significant area.

281. Bush fire hazard reduction work restricted

- (1) Forests NSW must not carry out, or authorise the carrying out of, bush fire hazard reduction work within an environmentally significant area, except to the extent necessary to fulfil its duty under section 63 of the *Rural Fires Act 1997* or any other obligation imposed by or under that Act.
- (2) Subclause (1) is not breached if a fire is lit outside an environmentally significant area for the purpose of bush fire hazard reduction but, despite the taking of all reasonable precautions to prevent it from doing so, the fire spreads to an environmentally significant area.
- (3) Despite clause 278, a tree may be felled in (or into) an environmentally significant area (and removed from that area) if necessary for Forests NSW to fulfil its duty under

section 63 of the Rural Fires Act 1997 or any other obligation imposed by or under that Act.

- (4) This clause does not restrict grazing for the purpose of bush fire hazard reduction in an environmentally significant area.

282. Burning for other silvicultural purposes restricted

- (1) This clause applies to a burning operation other than bush fire hazard reduction.
- (2) Forests NSW must not carry out a burning operation, or authorise such an operation, in an environmentally significant area except:
 - (a) in accordance with clause 279 for the purpose of pest, weed or disease control, or
 - (b) in accordance with clause 280 for the purpose of thinning a dense stand of cypress re-growth, or
 - (c) in accordance with subclause (4) for the purpose of maintaining or restoring the ecology of the area.
- (3) Subclause (2) is not breached if a fire is lit outside an environmentally significant area, but despite the taking of all reasonable precautions to prevent it from doing so, the fire spreads to an environmentally significant area.
- (4) Forests NSW may carry out a burning operation, and authorise such an operation, in an environmentally significant area for the purpose of maintaining or restoring the ecology of the area with:
 - (a) in the case of a Zone 3A ESA, the authorisation in writing of a regional manager of Forests NSW, and
 - (b) in any other case, DECCW's approval in writing.
- (5) Any such burning operation may be carried out only in accordance with any conditions imposed by DECCW as part of its approval, including any conditions relating to access to the environmentally significant area.

283. Bee-keeping restricted

- (1) A beehive set-down site must not be established within an environmentally significant area.
- (2) Native vegetation may be cleared or disturbed within an environmentally significant area to maintain an existing beehive set-down site or access to such a site (despite clause 278). However:
 - (a) trees in the area that have a dbhob of 100 mm or more may not be felled or destroyed only for this purpose, and
 - (b) native vegetation in the area may be cleared or disturbed to maintain access to a beehive set-down site outside the area only if there is no alternative practicable means of access to the site.
- (3) Forests NSW must take measures to ensure, when native vegetation is cleared or disturbed in an environmentally significant area under subclause (2), that:

- (a) if the area is a species protection zone for a species of plant (under clause 258 or 259), individuals of that species are not destroyed, disturbed or damaged, and
- (b) if the area is a species protection zone for a species of animal, individuals of the species are not harmed and any native plant that represents an important aspect or feature of the species' habitat is not destroyed or damaged, and
- (c) if the area is a species protection zone for Part 1 Box Gum Woodland EEC or Inland Grey Gum Woodland EEC or an environmentally significant area for Part 2 Box Gum Woodland EEC, individuals of a species of plant that belong to the assemblage of species constituting the relevant EEC are not destroyed, disturbed or damaged.

(4) In this clause:

“existing beehive set-down site” means a beehive set-down site that existed as at the commencement of this approval or a beehive set-down site that is established after that date other than one established in breach of a term of this approval; and

Note: An area may not become an environmentally significant area for the purposes of this approval until evidence of a threatened species is found in the area or an area may not be known to be an environmentally significant area until a survey is carried out before a logging operation is undertaken in the compartment in which it is located. Accordingly, a beehive set-down site that is established before either occurrence will not have been established in breach of this approval (that is, it will be an existing beehive set-down site as defined above).

“native vegetation” has the same meaning as in the Native Vegetation Act 2003.

Division 5 – Ancillary road construction in environmentally significant areas

284. Application of Part to fire trails

Nothing in this Division restricts or prohibits the construction, re-opening, up-grading, maintenance or use of a fire trail solely for the purposes of emergency fire-fighting.

285. Construction of roads prohibited in areas of rocky outcrops and cliffs

Roads, bush tracks and fire trails must not be constructed, re-opened or up-graded in areas of rocky outcrops and cliffs.

286. Construction of roads in certain environmentally significant areas restricted

(1) This clause applies to the following environmentally significant areas:

- (a) an area of heath of more than 0.2 hectares and its surrounding protection zone,
- (b) a protection zone surrounding an area of rocky outcrops or cliffs,
- (c) a Zone 3A ESA,
- (d) an environmentally significant area for Part 2 Box Gum Woodland EEC.

(2) A road, bush track and fire trail may be constructed, re-opened or up-graded in an environmentally significant area to which this clause applies, but only if:

- (a) there is no practicable alternative route available, and
- (b) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, a regional manager of Forests NSW has authorised the use of the proposed route in writing and a copy of the report (and authorisation) has been forwarded to DECCW.

- (3) If there is a record of a threatened species on the proposed or existing route of the road, track or trail, the works referred to in subclause (2) may be carried out only if DECCW has first approved them in writing (following the receipt of the report referred to in subclause (2) (b)).
- (4) Forests NSW must ensure that all practicable measures are taken to minimise or mitigate any adverse effect of the road, track or fire trail construction, re-opening or up-grading on the environment, including complying with any conditions relating to minimising or mitigating any adverse impact of the works on the environment imposed by DECCW as part of an approval under subclause (3).

287. Construction of roads in species protection zones restricted

- (1) A road, bush track or fire trail may be constructed, re-opened or up-graded in a species protection zone, but only if:
 - (a) there is no practicable alternative route available,
 - (b) Forests NSW has prepared a report, in the appropriate form set out in Schedule 3, of an assessment that addresses the matters set out on that form, has authorised the use of the proposed route in writing and forwarded a copy of the report (and authorisation) to DECCW, and
 - (c) DECCW has also approved the proposed works in writing, following receipt of that report and before any work is commenced.
- (2) A road, bush track or fire trail may be constructed, re-opened or up-graded within a species protection zone only in accordance with the conditions (if any) imposed by the DECCW as part of its approval, being conditions relating to minimising or mitigating any adverse impact of the work on the environment.

288. Road, track and trail maintenance and use

To avoid doubt, this Division does not restrict or prohibit the use of, or the carrying out of maintenance on, roads, bush tracks and fire trails in environmentally significant areas.

289. Bush tracks for certain on-going forest management operations

Despite any other provision of this Division, a bush track may be constructed or re-opened in an environmentally significant area for the purpose of an on-going forest management operation authorised or approved under clause 279, 280 or 282 (4) by a regional manager of Forests NSW or DECCW (as the case may require), but only in accordance with the authorisation or approval.

Division 6 – Use and operation of harvesting machinery in environmentally significant areas

290. Prohibition on use of harvesting machinery in environmentally significant areas

A harvesting machine must not enter, and must not be used within, an environmentally significant area, for the purpose of, or in the course of, a forestry operation except in accordance with this Division or clause 268.

291. Use of harvesting machinery in relation to the provision of fire trails for emergency fire fighting

A harvesting machine may enter, and be used within, an environmentally significant area for the purpose of the construction, re-opening, up-grading or maintenance of fire trails solely for the purpose of emergency fire-fighting. (To avoid doubt, any machine may be used within an environmentally significant area in the course of emergency fire fighting.)

292. Use and operation of harvesting machinery within environmentally significant areas for removal of timber and road works

A harvesting machine may enter, and be used within, an environmentally significant area:

- (a) for the cutting or removal of timber in a logging operation (including the creation or re-opening of an extraction track) in accordance with Division 2, and
- (b) for the purpose of constructing, re-opening or up-grading a road, bush track or fire trail in accordance with Division 5.

293. Use of existing roads, tracks etc within environmentally significant areas

A harvesting machine:

- (a) may be used on a road, bush track or fire trail within an environmentally significant area to carry out maintenance on that road, track or trail, and
- (b) may travel along a road, bush track or fire trail within an environmentally significant area, in the course of, or for the purpose of, a forestry operation (such as gaining access to an area proposed to be logged),

but only if that road, track or trail was constructed in accordance with this approval or before the granting of this approval.

294. Harvesting machinery for pest, weed or disease control

A harvesting machine may enter, and be used within, an environmentally significant area for the purpose of felling, cutting or destroying trees to assist in the control of a pest, weed or disease in accordance with clause 279.

295. Special provisions regarding maintenance of dams and tanks

- (1) A harvesting machine (and any other machine designed to be propelled by a motor) may enter, and be used, within a dam or tank and its surrounding protection zone for the purpose of carrying out maintenance work on the dam or tank, but only if:
 - (a) Forests NSW has prepared a report of an assessment of the proposed maintenance work that addresses any relevant matters set out on the appropriate form in Schedule 3 and the other requirements of this clause, and a regional manager of Forests NSW has authorised that work, and
 - (b) a copy of the report (and authorisation) has been forwarded to DECCW (before the maintenance work is commenced).
- (2) If a dam or tank and its surrounding protection zone is wholly or partially within another environmentally significant area (including a species protection zone), or an area of land that is classified as a Forest Management Zone 2 or 3A, then a harvesting machine (and any other machine) may still enter and be used within that area (in accordance with subclause (1)) if a regional manager of Forests NSW:
 - (a) considers that that is necessary in order to carry out the dam or tank maintenance work, and

- (b) is satisfied, where the other area is a species protection zone, that any habitat of the threatened species or protected fauna within the zone will (whether in the short-term or longer term) be enhanced by the dam or tank maintenance work or that the benefits of carrying out the work outweigh any detrimental impacts of the work on that habitat, and
- (c) is satisfied that any adverse impact on the environment would not be reduced by carrying out the dam or tank maintenance work in another season (for example, a season which is not the breeding season for animals of a species protected by the zone).

The report referred to in subclause (1) must include a record of the regional manager's assessment of the matters referred to in paragraphs (a), (b) (if relevant) and (c).

- (3) The report referred to in subclause (1) must also indicate whether it is proposed to carry out other dam or tank maintenance work (using machinery) within 20 km of the dam or tank to which the report and authorisation relate. If so, the report must include details of that other work, including the location of each dam or tank on which maintenance work is proposed, the proposed date of that work and the type of work proposed.
- (4) A report and authorisation may relate to more than one dam or tank.
- (5) Forests NSW must ensure that all practicable measures are taken to minimise any adverse impact of the dam or tank maintenance work on the environment, particularly threatened species of animals and plants and protected fauna, and their habitat.
- (6) Maintenance work (using harvesting machinery) may not be carried out on the inside of a dam or tank, or so as to disturb the inside of the dam or tank, when standing water is visible within it.
- (7) The following are to be noted on the report and authorisation under subclause (1) (or a copy):
 - (a) the dates on which the maintenance work on any dam or tank to which the authorisation relates was commenced and completed, and
 - (b) if maintenance work is carried out on the inside of a dam or tank, the name of any person who has checked that there is no standing water visible within it when the work is carried out (and the date or dates on which he or she did so).
- (8) For the purposes of this clause, "maintenance work on a dam or tank" includes work to de-silt the dam or tank, work to re-shape or stabilise its outlet structures, catch drains or embankments, and work to control or eliminate regrowth on the inside of the dam or tank or on its embankments.

CHAPTER 4: PROTECTION OF WATER AND THE AQUATIC ENVIRONMENT FROM POLLUTION - PLANNING AND REPORTING ON MATTERS

(Terms of licences under the *Protection of the Environment Operations Act 1997* and Part 7A of the *Fisheries Management Act 1994*)

PART 4.1 – APPLICATION OF THIS CHAPTER AND INTERPRETATION

296. Application of Chapter

- (1) This Chapter sets out terms of the licence under the *Protection of the Environment Operations Act 1997* as described in clause 7. However, the provisions of this Chapter are only terms of the licence under the *Protection of the Environment Operations Act 1997* in so far as they apply to or in relation to logging operations or ancillary road construction (as referred to in clause 7).
- (2) The provisions of this Part and Part 4.2 are also terms of the licence under Part 7A of the *Fisheries Management Act 1994* as described in clause 8. Accordingly, to the extent that the provisions of this Chapter are terms of that licence, they apply to (and in relation to) the forestry operations described in that clause.
- (3) A reference to a forestry operation in this Chapter is to be construed according to whether the provision in which the reference occurs is being applied as a term of the licence under the *Protection of the Environment Operations Act 1997* or as a term of the licence under Part 7A of the *Fisheries Management Act 1994*.

297. Requirements of Part 4.2 additional to requirements of Chapter 1

Nothing in Part 4.2 limits the operation of Part 1.3.

PART 4.2 - PLANNING FORESTRY OPERATIONS TO COMPLY WITH EPL AND FML

298. Relevant matters when planning logging operations and road works etc.

Forests NSW is to take into account, determine or identify the matters set out in Schedule 9, to the extent that they are relevant, in planning a logging operation and ancillary road construction for which a site specific operational plan is required.

299. Assessment of dispersibility of soils in vicinity of drainage feature or wetland

- (1) This clause applies to the following:
 - (a) works relating to any part of a road, bush track, extraction track or fire trail within 20 metres of a drainage feature or wetland (as described in clause 342), and
 - (b) works relating to a crossing of a drainage feature or of a wetland (within the meaning of Chapter 5).
- (2) Works to which this clause applies must not be commenced unless:

- (a) an assessment of the dispersibility of soils within 20 metres of the drainage feature or wetland (along the route of the road, track or trail concerned) has first been carried out by an approved soil assessor in accordance with the requirements of Schedule 10 to determine whether highly erodible soil (within the meaning of that Schedule) is present in the area, or
 - (b) Forests NSW has determined (in writing) that the soils within 20 metres of the drainage feature or wetland (along the route of the road, track or trail concerned) are to be treated as highly erodible (for the purpose of clause 342).
- (3) The results of an assessment of the dispersibility of soils may not be relied on (for the purpose of determining whether or not clause 342 applies) unless the person who has carried out the assessment certifies that the assessment complied with the requirements of Schedule 10.
- (4) To avoid doubt, this clause does not apply to works relating to a fire trail or to a crossing of a drainage feature or a wetland by a fire trail that are carried out solely for the purpose of emergency fire fighting or the use of such a crossing during emergency fire fighting.

300. Site specific operational plan for logging operations and road works

- (1) The site specific operational plan for a forestry operation must:
- (a) address the application of the provisions of Chapter 5 to the operation, in so far as these appear to be relevant to the operation concerned, and
 - (b) specify how they will be applied to, or be given effect to in, the operation.

For example, in the case of a proposed logging operation, the application of Part 5.3 to any existing roads or bush tracks within the compartment or tract that are proposed to be used in the operation needs to be addressed in the plan.

- (2) If Forests NSW develops site specific measures under clause 317 for a forestry operation before the commencement of the operation, those measures are to be included in the site specific operational plan for the operation.

301. Operational map requirements

- (1) For the purposes of Chapter 5, the operational map for a logging operation or ancillary road construction is to show or include the following information:

Existing roads

- (a) location of any existing natural surface roads, bush tracks and fire trails,
- (b) location of any existing sealed or gravelled roads,
- (c) names of any existing roads (if available),

New roads and other proposed road works

- (d) location of any natural surface roads, bush tracks and fire trails proposed to be constructed, created, re-opened or up-graded in the forestry operation,
- (e) location of any sealed or gravelled roads proposed to be constructed or up-graded in the forestry operation,
- (f) names of any proposed roads (if available),

Drainage feature and wetland crossings

- (g) location of any drainage feature and wetland crossings (by roads, bush tracks or fire trails),
- (h) in the case of a logging operation, approximate location of any drainage feature crossing by an extraction track,

Log dumps, borrow pits, gravel pits

- (i) in the case of a logging operation, the location of any existing or proposed log dump (other than a log landing) or any gravelled loading bay, proposed to be constructed or used in the operation,
 - (j) in the case of a logging operation, the location of any log landing proposed to be constructed or used in the operation or the areas along relevant roads where they may not be constructed,
 - (k) the location of any gravel pit or borrow pit proposed to be created or used in the operation.
- (2) The operational map is to clearly distinguish between any existing roads, bush tracks and fire trails and any roads, bush tracks and fire trails proposed to be constructed in the operation. Further, the operational map is to indicate, in relation to each existing road, bush track and fire trail shown on the map, whether:
- (a) it is proposed to use the road, track or trail in the operation, and
 - (b) it is proposed to re-open or up-grade or maintain the road, track or trail in the operation.

(The names shown on the map for roads are to be the same as the names used for those roads in the other sections of the site specific operational plan of which the map forms a part.)

Note: See also clause 73 in Chapter 1 which requires the operational map to indicate which roads, bush tracks and fire trails are proposed to be used in the operation concerned. (Schedule 1 summarises the matters or information that must be included on an operational map under various provisions of this approval.)

- (3) A road, bush track or fire trail is not required to be shown on the operational map if its total length is no more than 40 metres.

302. Additional details for logging operations and road works in monthly advice

The monthly advice required to be given to DECCW and DII (Fisheries) under Part 1.4 is to contain the following additional information in relation to proposed logging operations and ancillary road construction included in the advice:

- (a) the event ID for the operation,
- (b) whether clause 342 (Roads and tracks in highly erodible soils near drainage features or wetlands) applies,
- (c) if the operation is a logging operation, the total length of existing roads and bush tracks proposed to be used in the operation,
- (d) the total length of any roads or bush tracks proposed to be constructed, re-opened or upgraded in, or in connection with, the operation,
- (e) the number of drainage feature crossings proposed to be constructed in, or in connection with, the operation,
- (f) if the operation is a logging operation, the number of drainage feature or wetland crossings proposed to be used in the operation.

303. Retaining written records of matters relevant to planning forestry operations

- (1) In addition to the records required to be made and kept under Chapter 5, Forests NSW must ensure that a written record of the following is kept (for at least 4 years):

- (a) any assessment of soil regolith or dispersibility of soil undertaken as required by Schedule 9 or clause 299 (including all the written records of the soil assessor required to be made under clause 6 of Schedule 10),
 - (b) any calculation for the purpose of 344 to determine whether a culvert crossing will contain the peak flow from a rainfall event referred to in that clause,
 - (c) any calculation of flow velocity of water under a bridge or through a culvert for the purpose of clause 343 or 344 respectively.
- (2) Any approval given by Forests NSW for the purposes of Chapter 5 is to be kept for at least 4 years.
- (3) A copy of a written record or approval referred to in this clause is to be provided to DECCW or DII (Fisheries) if requested.

PART 4.3 – REGISTERS, REPORTS AND OTHER RECORD KEEPING REQUIREMENTS FOR PURPOSES OF EPL

Note: The provisions of this Part are terms of the licence under the Protection of the Environment Operations Act 1997 only. Accordingly, they apply only in relation to logging operations and ancillary road construction.

Division 1- Interpretation

304. Interpretation

In this Part, a reference to the EPL is a reference to the terms of the licence under the Protection of the Environment Operations Act 1997 set out in this approval.

Division 2 – Registers, records and notifications to DECCW regarding compliance

305. Complaints register

- (1) Forests NSW must keep a register of complaints (made to or received by any of its offices for the Brigalow-Nandewar Region) that:
- (a) water pollution has resulted (or may have resulted) from the carrying out of a logging operation or ancillary road construction in the Region, or
 - (b) a term of the EPL has been (or may have been) breached in, or in relation to, carrying out a logging operation or ancillary road construction.
- (2) The register must include the following details in relation to each complaint:
- (a) date on which complaint was made,
 - (b) how the complaint was made (for example, in person or by phone, letter or Email),
 - (c) name, address and telephone number of the complainant or other contact person (if such details were provided by the complainant),
 - (d) name of member of staff to whom the complaint was made (if made in person or by phone) or to whom the complaint was addressed (if made by letter or by Email),
 - (e) any action taken by Forests NSW in relation to the complaint (including any follow-up contact with the complainant or other contact person).
- (3) The register must also include the following details if provided by the complainant:

- (a) if the complaint is that water pollution has resulted (or may have resulted) from a logging operation or ancillary road construction:
 - (i) the location of the source of the pollution,
 - (ii) the location of the water that has been or may have been polluted, and
 - (iii) the substance (and its quantity) that has caused or may have caused the pollution, and
- (b) if the complaint is that a term of the EPL has been (or may have been) breached in carrying out a logging operation or ancillary road construction, the location of the operation (by including, if known to the complainant, the name of the State forest and the compartment number) and the term allegedly breached.

306. Compliance register

- (1) Forests NSW must keep a register relating to breaches of the terms of the EPL (in carrying out logging operations and ancillary road construction).
- (2) The register must include the following details in relation to each breach (in so far as these details can be provided, given the nature of the breach):
 - (a) the date on which the breach occurred,
 - (b) the nature of the breach (identifying the term of the EPL that was breached, by referring to the relevant clause or clauses of this approval),
 - (c) the duration of the breach,
 - (d) the date on which Forests NSW became aware of the breach,
 - (e) the location of the breach (by marking the operational map for the operation concerned or by giving the grid co-ordinates),
 - (f) the reasons for the breach,
 - (g) whether the breach resulted in water pollution,
 - (h) any action taken by Forests NSW or other person to remedy the breach and the dates on which it was taken,
 - (i) any measures taken or proposed to be taken by Forests NSW to prevent the breach recurring or to mitigate the effects of such a breach,
 - (j) any action taken by Forests NSW against members of staff, licensees or contactors or agents and when any such action was taken.
- (3) Details relating to a breach must be included on the register within 14 days of Forests NSW becoming aware of the breach.

307. Notification and reports of pollution incidents causing or threatening material harm to the environment

- (1) In this clause:

“authorised officer” means an authorised officer appointed by the Environment Protection Authority under the *Protection of the Environment Operations Act 1997*;

“material harm to the environment”, “pollution incident” and “relevant authority” have the same meanings as in the *Protection of the Environment Operations Act 1997*; and

“relevant information” about a pollution incident means the information set out in section 150 of the *Protection of the Environment Operations Act 1997*.

AMENDMENT 1
1 March 2013
Clause 307
modified

AMENDMENT 1
1 March 2013
Clause 307(1)
modified

AMENDMENT 1
1 March 2013
Clause 307(2)
modified

- (2) If a pollution incident occurs in the course of a logging operation or ancillary road construction so that material harm to the environment is caused or threatened, Forests NSW (and any other person) must immediately, for the purpose of fulfilling a duty to notify under Part 5.7 of the Protection of the Environment Operations Act 1997, notify each relevant authority.

AMENDMENT 1
1 March 2013
Clause 307(3)
replaced

- (3) FCNSW must provide written notification of the pollution incident to each relevant authority within 7 days of the date in which immediate notification has been given.

- (4) If an authorised officer (with reasonable grounds for suspecting that such a pollution incident has occurred) requires Forests NSW, by written notice, to give EPA a written report on the suspected incident, Forests NSW must do so within the time specified in the notice.

AMENDMENT 1
1 March 2013
Clause 307(5)
omitted and
following
subclauses
renumbered

- (5) Forests NSW must make all reasonable inquiries to enable it to provide the information specified in the written notice. An authorised officer may require, by further notice in writing to Forests NSW, additional information if not satisfied with the report provided. Forests NSW is to provide that information (if able to do so) within the time specified in the notice.

- (6) This clause applies only to the extent that it is not inconsistent with any regulation made under the Protection of the Environment Operations Act 1997 prescribing the manner and form of notifying a pollution incident under section 148 of the Act.

307A. Pollution incident response management plan

AMENDMENT 1
1 March 2013
Clause 307A
added

- (1) In accordance with Part 5.7A of the Protection of the Environment Operations Act 1997, FCNSW must prepare, keep, test and implement a pollution incident response management plan.

308. Records relating to logging operations and ancillary road construction

- (1) Forests NSW is to ensure that records are kept of the following dates in relation to logging operations and ancillary road construction:
- (a) last date on which a drainage feature protection zone is disturbed by removal of timber in a logging operation (if soil stabilisation measures are required after that date under clause 115),
 - (b) the last date on which a drainage feature protection zone is disturbed by works relating to a road, bush track or fire trail (as referred to in clause 129) in an operation (if soil stabilisation measures are required after that date),
 - (c) date of completion of road works (as referred to in clause 323) if measures to stabilise the road batter are required after that date,
 - (d) date on which the use of an extraction track in a logging operation is permanently or temporarily discontinued if it must be drained after that date under clause 326,
 - (e) dates on which soil erosion and sediment control structures or measures are inspected for the purpose of clause 330,
 - (f) dates on which roads and bush tracks are inspected during an operation for the purpose of clause 332,
 - (g) date on which roads and tracks are inspected following a 1:5 (24 hour) rainfall event that occurs during an operation, for the purpose of clause 333,
 - (h) date on which works relating to a bridge (as referred to in clause 343) are completed if soil stabilisation measures are required after that date,

- (i) date on which works relating to a culvert crossing (as referred to in clause 344) are completed if soil stabilisation measures to protect a fill batter surrounding the culvert are required after that date,
 - (j) dates on which a causeway is inspected to assess its stability for the purpose of clause 345,
 - (k) the date on which the bed or bank of a drainage feature is disturbed by removal of spoil or tree debris if re-shaping and soil stabilisation measures are required after that date (as referred to in clause 356).
- (2) It is sufficient compliance with this clause if the supervising forestry officer for an operation makes notes of the matters referred to in this clause in his or her work diary for the operation, and that diary is retained.

Division 3 – Special EPL annual return

309. Special annual return to be given to DECCW

- (1) In addition to the annual report required to be prepared under Chapter 1, Forests NSW is to prepare and give to DECCW an annual return relating to logging operations and ancillary road construction regulated by the terms of the EPL.
- (2) An annual return is to be prepared in respect of each calendar year. The first year with respect to which an annual return must be prepared is the first full calendar year after the commencement of this approval. However, that return is also to relate to logging operations and ancillary road construction undertaken in the remainder of the year immediately following the commencement of this approval.
- (3) An annual return is to comprise:
 - (a) a statement of compliance in accordance with clause 310, and
 - (b) an operational and complaints summary in accordance with clause 311, and
 - (c) a compliance summary in accordance with clause 312 (if required).

310. Contents of statement of compliance

The statement of compliance that must be included in a return for a year is a statement as to whether any term of the EPL has been breached in, or in relation to, the carrying out of a logging operation or ancillary road construction in the year.

311. Operational and complaints summary

The operational and complaints summary that must be included in a return for a year is a summary of the following:

- (a) details given in each monthly advice for logging operations and ancillary road construction commenced or continued in that year,
- (b) details of each complaint made in that year and entered on the complaints register under clause 305,
- (c) Forests NSW's assessment of the efficacy of the terms of the EPL in protecting water quality,
- (d) Forests NSW's response to any information provided to Forests NSW by DECCW regarding the results of an audit by DECCW of compliance with the terms of the EPL, including details of any improvements made by Forests NSW to its systems and practices to safeguard against any breach of a term recurring.

312. Compliance summary

If the statement of compliance under clause 310 identifies a term or terms of the EPL that have been breached in the relevant year, a compliance summary must be included in the annual return. The compliance summary must specify the approximate number of breaches that have occurred, as recorded in the compliance register kept under clause 306.

313. Certification of annual return by senior officer of Forests NSW

A return for a year is not to be forwarded to DECCW unless it has first been certified as correct by a senior officer of Forests NSW on behalf of Forests NSW.

314. When must annual return be forwarded to DECCW?

A return for a year must be forwarded to DECCW within 60 days of the end of the year by registered post and by Email.

CHAPTER 5: PROTECTION OF WATER AND THE AQUATIC ENVIRONMENT FROM POLLUTION – OPERATIONAL MATTERS

(Terms of licences under the Protection of the Environment Operations Act 1997 and Part 7A of the Fisheries Management Act 1994)

PART 5.1 - GENERAL

315. Application of Chapter

- (1) This Chapter sets out terms of the licence under the Protection of the Environment Operations Act 1997 as described in clause 7. To the extent to which the provisions are terms of that licence, they apply to (and in relation to) the forestry operations described in that clause, namely logging operations and ancillary road construction.
- (2) The following provisions of this Chapter are also terms of the licence under Part 7A of the Fisheries Management Act 1994 as described in clause 8. As terms of the licence under Part 7A of the Fisheries Management Act 1994, they apply to (and in relation to) the forestry operations described in that clause.
- (3) A reference to a forestry operation in this Chapter is to be construed according to whether the provision in which the reference occurs is being applied as a term of the licence under the Protection of the Environment Operations Act 1997 or as a term of the licence under Part 7A of the Fisheries Management Act 1994.

316. Interpretation of Chapter

- (1) In this Chapter:

“road works” means the construction, re-opening, up-grading or maintenance of a road to enable or assist in the carrying out of forestry operations;

“works relating to a crossing of a wetland” means maintaining a crossing of a wetland (being a crossing that exists when this approval commences) to enable or assist in the carrying out of forestry operations; and

“works relating to a drainage feature crossing” or “works relating to a crossing of a drainage feature” means constructing, re-opening, up-grading or maintaining a crossing of a drainage feature to enable or assist in the carrying out of forestry operations.

- (2) The duration of a forestry operation, for the purposes of this Chapter, is the period between:
 - (a) the date specified by Forests NSW in a monthly advice as the date on which the operation commenced, and
 - (b) the date specified by Forests NSW in a monthly advice as the date on which the operation was completed,

if these dates are specified in the relevant advices.

- (3) For the purposes of a prohibition or restriction in this Chapter on the doing of any thing without the approval of Forests NSW (however expressed), the approval of Forests NSW may be given by the supervising forestry officer for the relevant operation or a more senior member of staff of Forests NSW.

317. Site specific measures to be developed to prevent water pollution

- (1) If it becomes apparent to Forests NSW (whether before or during the carrying out of a forestry operation) that compliance with any requirement of this Chapter will not, in the circumstances, effectively and efficiently protect the aquatic environment from pollution or is not practical, Forests NSW is to develop instead site specific measures to effectively and efficiently protect the aquatic environment from pollution.
- (2) Forests NSW is to make and keep a written record of the measures it develops under subclause (1), clearly identifying the area to which they apply. The record must also identify the requirement of this Chapter that is not to apply to the operation concerned and explain how the site specific measures proposed instead will achieve the objective referred to in subclause (1).
- (3) Forests NSW is to ensure that the measures are implemented in the area for which they are developed in carrying out the relevant forestry operation.
- (4) If the site specific measures developed under subclause (1) are implemented, the relevant requirement of this Chapter no longer applies to the operation concerned.

318. Circumstances preclude compliance with specified time frame

- (1) Forests NSW (and any other person carrying out operations to which this approval applies) is not in breach of a provision of this Chapter merely because of a failure to do something within a time specified in the provision if Forests NSW (or other person) has a reasonable excuse for the failure.
- (2) Subclause (1) applies only if Forests NSW ensures that a written record of the reasons for the failure is made and kept (for 4 years).
- (3) Forests NSW must ensure that the thing required to be done by the relevant provision of this Part is done as soon as practicable, even though Forests NSW (or other person) has a reasonable excuse for failing to do the thing in the time specified in the provision.

319. Training in sediment control and prevention of water pollution and soil erosion

Forests NSW must ensure that persons involved in the carrying out or planning of logging operations and ancillary road construction in State forests within the Brigalow-Nandewar Region (including any person who holds an operator's licence issued under regulations made pursuant to the *Forestry Act 1916*) have completed a course in sediment control and prevention of water pollution and soil erosion, being a course that:

- (a) has been accredited by the NSW Vocational Education and Training Accreditation Board (constituted by the *Vocational Education and Training Act 2005*), and
- (b) is delivered by a registered training organisation within the meaning of the *Vocational Education and Training Act 2005*.

PART 5.2 – CONSTRUCTION OF ROADS ETC

320. Marking proposed roads in the field

Before commencing work to construct a road, the route of the proposed road must be marked in the field.

321. Roads not to be constructed in vicinity of drainage protection area or buffer strip

A road may not be constructed within 20 metres of a drainage protection area or a buffer strip unless:

- (a) in the case of a drainage feature protection zone, the road may be constructed, within the protection zone, under Chapter 2, and
- (b) in the case of a buffer strip, the road may be constructed in connection with a crossing of the relevant drainage depression under Part 5.5.

322. Disturbance of soil and clearing vegetation to be minimised

Disturbance of soil, and clearing of vegetation, outside the road prism must be minimised during road works.

323. Road batters

- (1) Soil erosion and water pollution must be minimised during construction and maintenance of road batters.
- (2) If it becomes apparent, in the course of carrying out road works, that a stable road batter will not result through natural means, measures must be taken to stabilise the batter within 10 days of completion of the road works.

324. Blading-off

- (1) Blading-off of a road may not be carried out unless Forests NSW has first assessed and approved it in the form set out in Part 3 of Schedule 3. Forests NSW may approve blading-off only if any damage to the road surface and road drainage structures can be repaired.
- (2) Any soil removed in blading-off must be stockpiled (in a recoverable position) and respread on the road surface on the completion of the forestry operation concerned. Any damage to the road's drainage structures must be repaired.
- (3) Forests NSW must create and keep a written record of the date on which, and the location at which, blading-off occurs and the reasons why it was approved.
- (4) Blading-off may not be carried out on an extraction track or bush track.
- (5) In this clause, "blading-off" means the removal of surface soil in wet conditions in order to expose a drier or firmer surface for use by machinery.

PART 5.3 – DRAINAGE OF ROADS, BUSH TRACKS AND EXTRACTION TRACKS

325. When (and to what) does this Part apply?

- (1) This Part applies to any road, bush track, extraction track and fire trail within a compartment or other tract of land that is used for the purposes of a logging operation:
 - (a) that is undertaken in that compartment or other tract of land, and
 - (b) for which a site specific operational plan is required.
- (2) This Part also applies to a road, bush track or extraction track that is constructed (or created), re-opened or up-graded in a compartment or other tract of land for the purpose of, or in the course of, a forestry operation, if a site specific operational plan is required to be prepared for the works concerned (whether or not as part of the other forestry operation).
- (3) The requirements of this Part have effect only during the logging operation referred to in subclause (1) or during the construction, re-opening or up-grading of the road, bush track or extraction track referred to in subclause (2), except as otherwise provided in this Part. The requirements of this Part have no operation during any period in which the logging operation or the works relating to the road, bush track or extraction track are suspended in the compartment or other tract of land concerned.
- (4) A reference in this Part to the relevant forestry operation, in connection with a road, bush track, extraction track or fire trail, is a reference to the logging operation referred to in subclause (1) in which the road, track or trail is used or to the construction, re-opening or up-grading of the road, bush track or extraction track referred to in subclause (2).
- (5) A reference in this Part (other than in this clause and clause 326 (2)) to:
 - (a) an extraction track includes a reference to a fire trail to which this Part applies, in the case of a fire trail that is used in the relevant logging operation as an extraction track, and
 - (b) a road includes a reference to a fire trail to which this Part applies, in any other case in which a fire trail is used in the relevant logging operation.

326. Maximum distance that water may flow along roads, bush tracks and extraction tracks

- (1) Any section of a road, bush track or extraction track with a grade specified in the first column of the table below must be drained (by installing drainage structures or taking other measures) so as to ensure that water cannot flow along the surface or table drain of the road or track, or any wheel ruts on the road or track, further than the distance specified in column 2 of the table for roads or tracks of that grade.

Maximum distance that water may flow along roads, bush tracks, extraction tracks, table drains and wheel ruts (metres)

Column 1 Road/track grade (degrees)	Column 2 Maximum distance (metres)
1,2,3	175
4,5	100
6,7,8	80
9,10	60
>10 - ≤15	40
>15 - ≤20	25

>20 - ≤25	20
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(For the purpose of applying this table, if the grade of the road or track is not a whole number, it is to be rounded up or down to the nearest whole number according to accepted mathematical conventions.)

(2) Subclause (1) must be complied with:

- (a) in the case of an extraction track, within 5 days of its use being permanently or temporarily discontinued, and
- (b) in the case of a road or bush track, at the completion of its construction (creation), up-grading or re-opening, and during its use in a logging operation and at the completion of its use in a logging operation, and
- (c) in the case of a fire trail, during its use, and at the completion of its use, in a logging operation.

(3) In this clause, “grade” means a unit of slope measured from a horizontal plane in degrees.

327. Diversion of water onto stable surface

If a drainage structure is used to divert water from the surface of a road, bush track or extraction track (including for the purpose of complying with this Part), Forests NSW must ensure that water is or will be discharged (and will continue to be discharged) onto a stable surface that is capable of withstanding concentrated water flow and that traps sediment, and dissipates energy, effectively.

Note: The discharge of water onto a stable surface could be achieved, for example, by one of the following techniques or a combination of them:

- *diverting flow onto undisturbed vegetation,*
- *diverting flow onto logging debris,*
- *diverting flow onto a natural or artificial non-erosive surface,*
- *installing natural or artificial sediment traps below the outlet of the road drainage structure.*

328. Rollover banks and crossbanks

(1) If any rollover bank or crossbank is used in order to comply with this Part, the bank must be constructed (and maintained) to an effective bank height of between 20 cm and 50 cm (inclusive).

(2) A crossbank may only be constructed of soil.

329. Spoil and tree debris to be removed from road drainage structures etc

Any spoil or tree debris that is in a drainage structure for a road or bush track must be removed from the structure if it is likely to impede the flow of water.

330. Soil erosion and sediment control structures for roads etc

(1) If any soil erosion and sediment control structure or measure is installed or taken for a road, bush track or extraction track (including for the purpose of complying with this Part) it must be:

- (a) appropriately located and constructed so that it works effectively, and

- (b) maintained during the relevant forestry operation in effective working order.
- (2) Forests NSW must ensure that each soil erosion and sediment control structure or measure for a road, bush track or extraction track is inspected during the relevant forestry operation to assess whether it complies with this clause. An inspection must be carried out fortnightly, in the case of a major operation, and monthly, in the case of a minor operation. If the structure does not comply with this clause, work must be carried out to ensure that it does so.
- (3) In this clause, “soil erosion and sediment control structure or measure” means a structure, measure or practice that is used to slow sediment laden runoff water, reduce the amount of sediment or trap sediment in runoff water, or dissipate the energy of the flow of water.

331. Drainage within 40 metres of a crossing

- (1) Any road, bush track or extraction track that crosses a drainage line must be drained (on both sides of the drainage line) between 5 metres and 40 metres (along the road or track):
- (a) from the point at which the road or track crosses the top of the bank of the incised channel of the line, or
- (b) if there is no defined bank, from the point at which the road or track crosses the edge of the channel of the drainage line.

A drainage structure must be installed. It is not enough to install crossfall only, unless the road or the track drains away from the crossing.

- (2) An extraction track that crosses a drainage depression must be drained (on both sides of the depression) between 5 metres and 40 metres (along the track) from the apparent centre of the drainage depression.
- (3) Despite subclause (1) (and without affecting the generality of clause 317), if a road, bush track or extraction track cannot be practicably drained between 5 metres and 40 metres from the crossing of the drainage line then:
- (a) site specific measures must be employed to prevent water pollution, and
- (b) the road or track must be drained as near as practicable to the crossing of the drainage line.

Note: Examples of site specific measures that may be employed are one or more of the following:

- *armouring the road/track surface and/or table drain,*
- *grassing the road surface and/or table drain,*
- *covering the surface of the table drain with an erosion resistant fabric, or*
- *installing sediment traps or sediment fences.*

332. Inspections of road and bush track drainage

- (1) Forests NSW must inspect each road and bush track (to which this Part applies) during the relevant forestry operation to assess whether it complies with the requirements of this Part in relation to its drainage. An inspection must be carried out fortnightly, in the case of a major operation, and monthly, in the case of a minor operation.
- (2) If such an inspection shows that a road or bush track does not comply with a requirement of this Part (or no longer complies), then work must be carried out to

ensure that it does so. The work must be carried out as soon as practicable and in any case:

- (a) within 10 days, if the work does not require machinery to be used, and
- (b) within 15 days, if the work is to be carried out within 200 metres of a drainage feature and requires machinery to be used.

333. Inspection to be carried out after storm

- (1) Forests NSW must inspect each road, bush track or extraction track (to which this Part applies) to assess whether the road or track complies, or continues to comply, with the requirements of this Part in relation to its drainage if a 1:5 year (24 hour) rainfall event is recorded as having occurred at the weather observation station closest to the compartment or other tract of land (in which the road or track is located) during the relevant forestry operation.
- (2) If such an inspection shows that a road, bush track or extraction track does not comply with a requirement of this Part, then work must be carried out to ensure that it does so, at the first opportunity after the rain has stopped.
- (3) A reference in subclause (1) to:
 - (a) a weather observation station is a reference to a weather observation station that is part of the Australian Bureau of Meteorology's observation network for meteorological and related data, and
 - (b) to a 1:5 (24 hour) rainfall event recorded at a weather observation station is a reference to a rainfall event in which the amount of rainfall recorded at the station for a 24 hour period is equal to or exceeds the amount that occurs over a 24 hour period at the station on average once in 5 years (according to available data).

PART 5.4 – DRAINAGE FEATURE CROSSINGS

334. Application of Part and relationship with Chapter 2

- (1) Nothing in this Part affects any restriction on the construction, re-opening or up-grading of roads, bush tracks, extraction tracks or fire trails, or any restriction on removal of timber, within or through drainage protection areas, imposed by Chapter 2. The requirements and restrictions of this Part are additional to those in Chapter 2.
- (2) To avoid doubt, this Part does not apply to works relating to a fire trail or to a crossing of a drainage feature or a wetland by a fire trail carried out solely for the purpose of emergency fire fighting or to the use of such a crossing during emergency fire fighting.
- (3) To avoid doubt, a crossing of a wetland must not be constructed, up-graded or re-opened for the purpose of enabling or assisting the carrying out of forestry operations.

Note: Chapter 2 prohibits the construction of a road, bush track, extraction track and fire trail (and removal of timber) through a wetland and its protection zone.

335. No construction of crossing unless approved by Forests NSW

- (1) A crossing of a drainage feature may be constructed, for the purpose of enabling or assisting the carrying out of forestry operations, only if:

- (a) it is a bridge, culvert crossing or causeway, and
 - (b) Forests NSW has first approved (in writing) its location and its type.
- (2) A gully stuffer (including a gully stuffer made out of logs) must not be constructed.
- (3) In this clause, “gully stuffer” means a crossing by a road or track of a drainage feature that is made by filling the drainage feature with trees, tree debris, spoil, soil, rock or other material to the level of the road or track.

336. Permissible types of drainage feature crossings

A crossing of a drainage feature or of a wetland by a road, bush track, extraction track or fire trail may be used in a forestry operation only if:

- (a) it consists of a stable structure, namely, a bridge, culvert crossing or causeway, and
- (b) its pavement consists of a stable natural surface or an erosion resistant material.

337. Drainage feature crossing to be constructed at right angles to feature

- (1) A crossing of a drainage feature may be constructed for the purpose of enabling or assisting the carrying out of forestry operations only at (or as close as practicable to) right angles to the drainage feature unless an angled approach reduces soil disturbance.
- (2) Vegetation may be cleared, for the purpose of works relating to a drainage feature crossing, only at (or as close as practicable to) right angles to the water flow unless an angled approach reduces soil disturbance.

338. Disturbance to bed and banks to be minimised

Disturbance to the bed and banks of a drainage feature or wetland must be minimised when carrying out works relating to a crossing of the drainage feature or the wetland.

339. Stable drainage feature cross section

Any works relating to a crossing of a drainage feature or of a wetland must be carried out in such a way that a stable cross section of the drainage feature or the wetland results.

340. Vegetation disturbance restricted

- (1) When carrying out works relating to a crossing of a drainage feature or a wetland, or its associated road, bush track, extraction track or fire trail, vegetation in the drainage protection area for the drainage feature or wetland or the buffer strip (in the case of an unmapped drainage depression) that is more than 5 metres upstream or downstream from the crossing or road, track or trail must not be disturbed or cleared.
- (2) Despite subclause (1), vegetation that is more than 5 metres upstream or downstream of the crossing or the road, track or trail may be cleared or disturbed, if this is necessary for carrying out the works and Forests NSW has first assessed and approved of the clearing or disturbance in the form set out in Part 3 of Schedule 3.

341. Soil erosion and sediment control measures

- (1) If it is apparent that works relating to a crossing of a drainage feature or a wetland will take more than one day to carry out and complete, soil erosion and sediment control

structures or measures (such as sediment fences and hay bales) must be installed and maintained during the works in effective working order.

- (2) The soil erosion and sediment control structures or measures required by subclause (1) must:
 - (a) prevent water from the road, track or trail surface and any drainage structure for the road, track or trail from entering any area in which soil has been disturbed, and
 - (b) prevent soil from being deposited in the drainage feature or the wetland.

342. Roads and tracks in highly erodible soils near drainage feature crossings

- (1) This clause applies to the following:
 - (a) works relating to a crossing of a drainage feature if the road, bush track, extraction track or fire trail that crosses the drainage feature is, or is to be, constructed (or created) in highly erodible soil that is within 20 metres (on either side) of the crossing of the drainage feature,
 - (b) works relating to a crossing of a wetland if the road, bush track or fire trail that crosses the wetland is already constructed in highly erodible soil that is within 20 metres (on either side) of the crossing of the wetland,
 - (c) works (including construction and maintenance) relating to any part of a road, bush track, extraction track or fire trail that is within 20 metres of a drainage feature or wetland and that is, or is to be constructed, in highly erodible soil.
- (2) When works relating to a crossing of a drainage feature or a wetland to which this clause applies are completed, the surface and table drains of the associated road, bush track, extraction track or fire trail (as the case may be) on the side or sides of the crossing in which there is highly erodible soil must be covered with a stable, non-dispersible material. The material must be applied for at least a distance of 20 metres along the road, track or trail from where the road, track or trail crosses the drainage feature or wetland.
- (3) When works relating to any part of a road, bush track, extraction track or fire trail to which this clause applies are completed, that part of the road, track or trail must be covered with a stable, non-dispersible material.
- (4) In this clause, “highly erodible soil” means a highly erodible soil within the meaning of Schedule 10 (that is, soil that scores a dispersibility rating of 2, 3 or 4 when aggregates of that soil are tested in accordance with Schedule 10) or soil that Forests NSW has determined is to be treated as highly erodible under clause 299.

343. Bridges

- (1) Any bridge that is constructed (including any bridge that replaces an existing bridge) during the term of this approval (for the purpose of enabling or assisting the carrying out of forestry operations) must be designed and constructed so that the flow velocity of the water under the bridge never exceeds by more than 10% the flow velocity that the water would have had at the site of the bridge if the bridge had not been in place.
- (2) Within 10 days of the completion of works relating to a bridge over a drainage feature or across a wetland, soil stabilisation measures must be taken to protect an embankment of the bridge, or drainage feature or wetland, that is unstable or unvegetated, from table drain discharge.

- (3) If soil or gravel is used as the pavement of a bridge over a drainage feature or across a wetland in relation to which works are carried out or that is used in a forestry operation, Forests NSW must ensure that structures are in place to prevent the soil or gravel from entering the drainage feature or wetland during the works or during the operation.

344. Culverts

- (1) This clause applies to a culvert crossing that is constructed or installed across a drainage feature during the term of this approval for the purpose of enabling or assisting the carrying out of forestry operations, including any culvert crossing in which the culvert is replaced during the term of this approval or that wholly replaces a crossing that was in place before this approval commenced.
- (2) Forests NSW must ensure that a culvert in a culvert crossing to which this clause applies is designed and constructed:
 - (a) so that the flow velocity of water through the culvert never exceeds by more than 10% the flow velocity that the water would have had at the site of the crossing if the culvert crossing had not been in place, and
 - (b) so as to wholly contain the peak flow from a 1:5 year rainfall event or a floodplain level flow, whichever is the lesser.
- (3) Forests NSW must ensure that a culvert crossing to which this clause applies (including the culvert) is designed and constructed so as to withstand the peak flow from a 1:10 year rainfall event or a floodplain level flow, whichever is the lesser.
- (4) Forests NSW must ensure that a base of a culvert in a crossing to which this clause applies is designed and constructed so the upper surface of the base varies by no more than 100 mm from the invert level of the drainage feature, both upstream and downstream of the culvert. When maintenance is being carried out on the base, Forests NSW must ensure that the base continues to comply with this requirement.
- (5) Forests NSW must ensure, whenever maintenance is being carried out on a culvert crossing to which this clause applies or it is being up-graded, that:
 - (a) the culvert will continue to wholly contain the peak flow from a 1:5 year rainfall event or a floodplain level flow, whichever is the lesser, and
 - (b) the crossing will continue to withstand the peak flow from a 1:10 year rainfall event or a floodplain level flow, whichever is the lesser.

Forests NSW must also ensure that the maintenance or upgrading does not result in the flow velocity of water through the culvert ever exceeding by more than 10% the flow velocity that the water would have had at the site of the crossing if the culvert crossing had not been in place.

- (6) If works are carried out to construct, up-grade or maintain a culvert crossing to which this clause applies and an upstream or downstream fill batter surrounding the culvert is unstable or unvegetated, soil stabilisation measures must be taken to protect the batter. The measures must be completed within 10 days of the works.
- (7) During any works to construct, up-grade or maintain a culvert crossing to which this clause applies, Forests NSW must ensure that the culvert discharges onto a stable surface capable of withstanding concentrated water flow so that scouring of the outlet

of the pipe does not occur. Forests NSW must also ensure that the culvert continues to discharge onto the stable surface following completion of the works.

- (8) Any work to recover (or remove) a culvert (whether or not part of a crossing to which this clause applies) or remove any associated soil fill of the crossing must be carried out in a manner that minimises disturbance to the bed and banks of the drainage feature concerned.
- (9) For the purposes of this clause, the peak flow from a rainfall event specified in a provision of this clause is to be determined either:
 - (a) in accordance with Forests NSW's Forests Engineering Service's document, "Road Cost Estimating and Waterway Calculator, version: 0" with the document identification "Corp-FM-0069", as issued in June 2006, or
 - (b) in accordance with another method adopted or developed by Forests NSW that has been approved by DECCW and DII (Fisheries) in writing before it is applied for the purposes of this clause.

345. Causeways

- (1) Forests NSW must ensure that any causeway that is constructed (including a causeway that replaces an existing causeway) during the term of this approval (for the purpose of enabling or assisting the carrying out of forestry operations) must be designed and constructed so that the upper surface of the causeway varies by no more than 100 mm from the invert level of the drainage feature, both upstream and downstream of the causeway. When any maintenance is being carried out on the causeway, Forests NSW must ensure that the causeway continues to comply with this requirement.
- (2) If a causeway across a drainage feature is used in a forestry operation (for which a site specific operational plan is required), it must be inspected during that operation to assess its stability. An inspection must be carried out fortnightly, in the case of a major operation, and monthly, in the case of a minor operation.
- (3) If an inspection shows that the causeway is eroding, then it must be replaced, or the causeway surface must be armoured with a stable natural surface or a non-erosive material, within 10 days of the inspection.

PART 5.5 - OPERATIONS WITHIN BUFFER STRIPS

346. Buffer strips around unmapped drainage depression

A buffer strip, for the purposes of this Part, is any area within 5 metres of the apparent centre of an unmapped drainage depression.

347. Operation of machinery in buffer strip when soil saturated

- (1) A harvesting machine must not enter, or be operated within, any part of a buffer strip where the soil is saturated.
- (2) However, a harvesting machine may be removed from any part of a buffer strip where the soil is saturated if Forests NSW has first assessed and approved the removal of the machine in the form set out in Part 3 of Schedule 3.

- (3) In removing a harvesting machine from an area of saturated soil under subclause (2), disturbance to the soil must be minimised and any disturbed area must be remediated as soon as practicable.

348. Construction of road or bush track across buffer strip

A road and bush track may be constructed, re-opened or up-graded in a buffer strip (for the purpose of logging operations) only if:

- (a) the road or bush track is to cross the unmapped drainage depression surrounded by the buffer strip, and
- (b) there is no practicable alternative route available.

349. Operation of machinery in buffer strip generally

- (1) Walkover techniques must be used, wherever practicable, when operating a harvesting machine within a buffer strip. The machine must be operated in such a way that the skewing of its tracks is minimised. Its blades, rippers or other similar attachments must be up, except when carrying out earthworks in accordance with subclause (3).
- (2) Timber cut in a logging operation must not be removed (whether by snigging or forwarding) via a route along an unmapped drainage depression.
- (3) Earthworks must not be carried out within a buffer strip except for the purpose of works relating to a road, bush track, extraction track or fire trail, or works relating to a crossing of the unmapped drainage depression (in accordance with clause 348).

350. No log dumps or borrow pits in buffer strips

- (1) Log dumps must not be constructed in buffer strips.
- (2) Borrow pits and gravel pits must not be located in buffer strips.

PART 5.6 - MISCELLANEOUS

351. Actively eroding gully head

A logging operation must not be carried out within 20 metres upstream from an actively eroding gully head.

352. Run-off from log dumps, borrow pits and gravel pits

Runoff from a log dump, borrow pit or gravel pit must not be discharged directly into any drainage feature during a forestry operation.

353. Wet weather restrictions

- (1) An extraction track must not be used in a logging operation if:
 - (a) there is runoff from the track surface, or
 - (b) the use of the track is likely to damage it significantly (for example, by causing rilling or rutting) leading to turbid runoff from the track surface.

- (2) Any harvesting machine at a log dump (other than a gravelled log dump) must remain stationary while there is runoff from the log dump. A forwarder, excavator or truck mounted loader may be used, but only as a stationary loader, while there is runoff from the log dump.
- (3) A haulage vehicle must not be used on a natural surface road or bush track where there is runoff from the road surface. However, a haulage vehicle may be driven out of the compartment or other tract of land concerned, if unloaded or only partially loaded with timber. (A "natural surface road or bush track" means a road or bush track that is unsealed or not gravelled).

354. Walkover techniques to be used in timber extraction

As far as practicable:

- (a) walkover techniques must be used during the extraction of timber in a logging operation (so as to prevent the removal of and minimise disturbance to the natural groundcover), and
- (b) groundcover must be retained on the surface of any extraction track used in the logging operation.

355. Downhill extraction

If a downhill extraction track enters a log dump from the uphill side, then at the end of each day on which it is used during a logging operation, a drainage structure must be in place on the extraction track within 40 metres of the log dump, on its uphill side.

356. Tree debris and spoil management generally

- (1) Any spoil or tree debris that results from a forestry operation must not be deposited in a drainage protection area or an unmapped drainage depression (or its surrounding buffer strip).
- (2) However, if any such spoil or tree debris is deposited in a drainage feature, then it must be removed, and it must be removed in a manner that avoids or minimises disturbance to the bed and banks of the drainage feature.
- (3) If the removal of spoil or tree debris disturbs the bed or a bank of a drainage feature, then the disturbed area must be re-shaped and soil stabilisation measures must be taken to achieve a stable cross section.
- (4) Re-shaping and soil stabilisation measures, for the purpose of subclause (3), must be completed within 5 days of the disturbance unless the soil is saturated.
- (5) If the soil is saturated, then machinery must not enter or be operated within the disturbed area, for the purposes of re-shaping it and stabilising the soil. However, temporary soil stabilisation measures must still be taken within 5 days of the disturbance. Re-shaping of the bed or bank of the drainage feature, and permanent soil stabilisation measures, must be completed as soon as practicable when the soil is no longer saturated.

357. Storage and handling of hazardous substances

- (1) Any chemicals used in a forestry operation must be stored and handled in compliance with the requirements of AS 1940 (as in force from time to time) being the Australian standard entitled "The storage and handling of flammable and combustible liquids".
- (2) A mobile fuel tank (for use in a forestry operation) must not be located within, or within 10 metres of the boundary of, a drainage protection area.
- (3) The transportation and storage of fuel for use in a forestry operation, and the refuelling of equipment for an operation, must be carried out in a manner that prevents the pollution of water.
- (4) All servicing and repairs of equipment, during a forestry operation, must be carried out in a manner that prevents the pollution of surface and ground water.

358. Disposal of waste

- (1) In this clause, "waste" includes tyres, drums, wire rope, sump oil and litter, but does not include forest or logging debris or spoil.
- (2) Waste from a forestry operation in a compartment or other tract of land must be removed from the compartment or tract within 10 days of the completion of the operation and disposed of in a proper and efficient manner, at an appropriate facility. In particular, it must not be buried or otherwise deposited within a State forest or other Crown-timber lands.
- (3) Until such waste is removed from the compartment or other tract of land, it must be stored properly.

SCHEDULE 1 – OPERATIONAL MAP FOR FORESTRY OPERATIONS

(Clauses 70, 73, 111, 182, 274 and 301)

This Schedule contains a “check-list” of matters that are to be represented or indicated on an operational map (at the time of its preparation) for a forestry operation for which a site specific operational plan is required. It is for assistance only, and does not form part of the approval.

Part 1.3 requires a site specific operational plan to be prepared for certain forestry operations before carrying out those operations. An operational map is part of a site specific operational plan (clause 70 (2)). Clause 73 sets out general requirements for the operational map. In addition, Chapter 2 (clause 111), Chapter 3 (clause 182) and Chapter 4 (clause 301) require specific features or other things relevant to compliance with the terms of each licence set out in the approval to be shown or indicated on the map.

The following “check-list” is a summary of the general requirements relating to the operational map in Chapter 1 and the more specific requirements of the subsequent Chapters.

The operational map for a forestry operation is to represent, include or indicate the following:

Chapter 1 (clauses 70 and 73)

1. location of the forestry operation (including, if within State forest, the name of the relevant State forest and compartment number or numbers),
2. any area (known at the time of preparation of the map) in which the forestry operation is prohibited or restricted under the approval or is not to be carried out (for example, because it constitutes an endangered ecological community or critical habitat within the meaning of the Threatened Species Conservation Act 1995),
3. scale bar,
4. grid co-ordinates (showing eastings and northings),
5. contour lines,
6. any compartment boundaries,
7. any State forest boundary (within the geographic area represented on the map),
8. name and location (if known) of any significant geographical features,
9. a title, with reference to the relevant State forest name and compartment number or numbers (in the case of State forest),
10. a reference to the applicable topographic map sheet names and numbers,
11. a map legend to enable each type of feature or area marked on the map to be correctly identified,
12. (if greater than 40 metres) roads, fire trails and bush tracks (including any proposed to be constructed or created), with an indication of which roads, trails and tracks are proposed to be used in the forestry operation concerned,

Chapter 2 (clause 111)

13. location of any mapped drainage line,
14. order of each mapped drainage line,
15. width of each protection zone for each mapped drainage line,
16. location of any unmapped drainage line (of which FNSW is aware at the time of preparation of the map),
17. location of each wetland (of which FNSW is aware at the time of preparation of the map),

Chapter 3 (clause 182)

(FNSW is required to indicate the location of the following things only if it knows of their existence at the time of preparation of the map.)

18. location of any record of a species to which a species protection zone relates (and the boundaries of any such protection zone),
19. location of any flying-fox camp (and the boundaries of any protection zone surrounding it) and potential subterranean bat roost that is a species protection zone,
20. location of any tree in which a regent honeyeater has been seen feeding,
21. location of glider sap feed trees within the meaning of clause 203,
22. location of trees containing raptor nests,
23. in the case of a salvage logging operation following a wildfire, the area devastated or damaged by the wildfire,

(Also note that **clause 274** contains a special requirement to show the location of broombush to be harvested within an area of heath on the operational map.)

Chapter 4 (clause 301)

Existing roads (if greater than 40 metres)

24. location of any existing natural surface roads, bush tracks and fire trails,
25. location of any existing sealed or gravelled roads,
26. names of any existing roads (if available),

New roads (if greater than 40 metres) and other proposed road works

27. location of any natural surface roads, bush tracks and fire trails proposed to be constructed, created, re-opened or up-graded in the forestry operation,
28. location of any sealed or gravelled roads proposed to be constructed or up-graded in the forestry operation,
29. names of any proposed roads (if available),

Drainage feature and wetland crossings

30. location of any drainage feature and wetland crossings (by roads, bush tracks or fire trails),
31. if the forestry operation is a logging operation, approximate location of any drainage feature crossing by an extraction track,

Log dumps, borrow pits, gravel pits

32. if the forestry operation is a logging operation, location of any existing or proposed log dump (other than a log landing) or any gravelled loading bay, proposed to be constructed or used in the operation,
33. if the forestry operation is a logging operation, location of any log landing proposed to be constructed or used in the operation or the areas along relevant roads where they may not be constructed,
34. location of any gravel pit or borrow pit proposed to be created or used in the forestry operation.

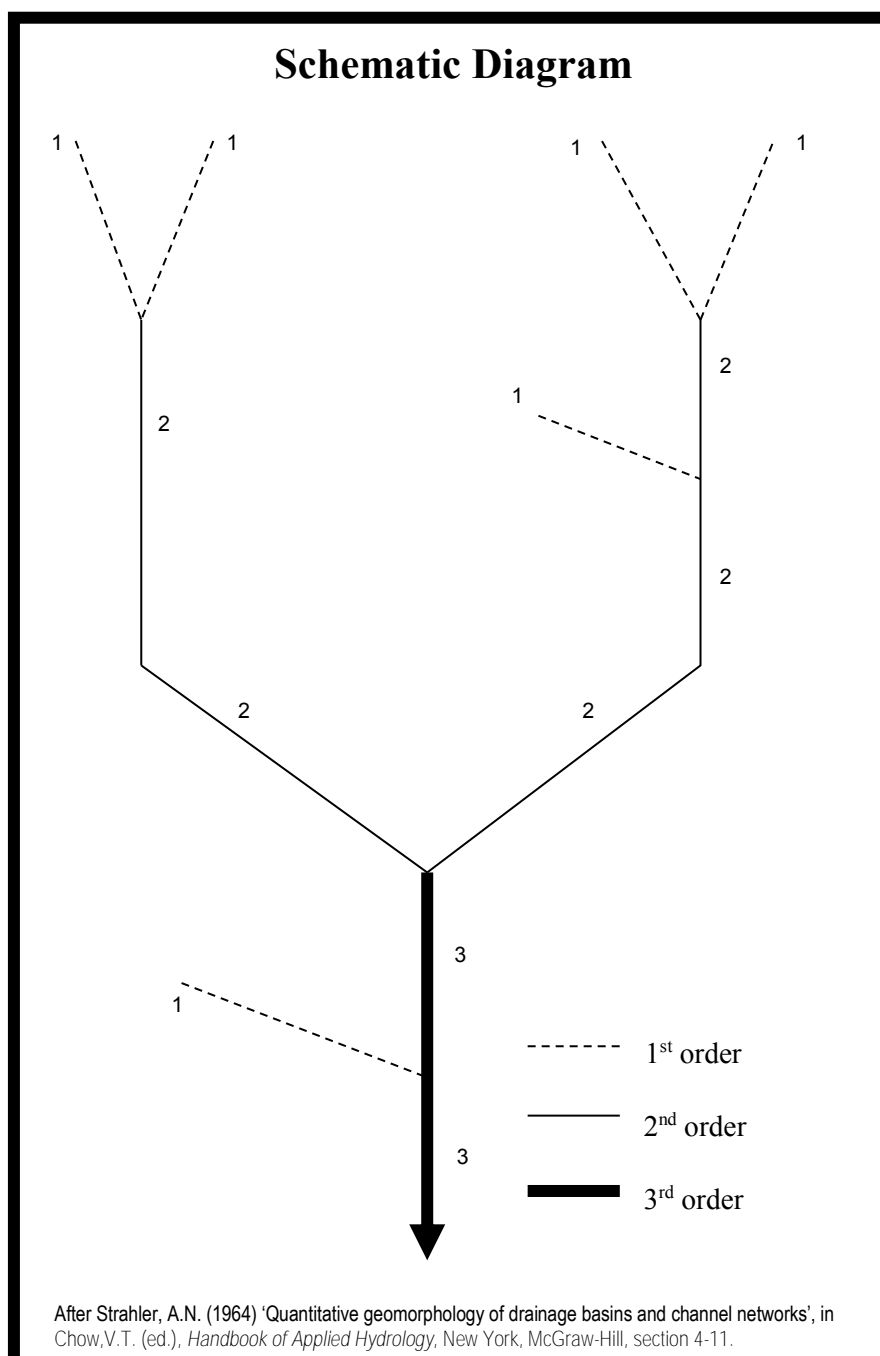
The operational map is to clearly distinguish between any existing roads, bush tracks and fire trails and any roads, bush tracks and fire trails proposed to be constructed in the operation. Further, the operational map is to indicate in relation to each existing road, bush track and fire trail shown on the map whether:

- (a) it is proposed to use the road, track or trail in the operation, and
- (b) it is proposed to re-open or up-grade or maintain the road, track or trail in the operation.

SCHEDULE 2 – DETERMINATION OF STREAM ORDER

(Clause 107)

1. A first order stream is defined as that part of a drainage system between its point of origin (as shown on the FMZ layer) and the first junction with another stream (as shown on that layer). A second order stream commences at the junction of two first order streams. A third order stream commences at the junction of two second order streams. A schematic diagram of stream order is provided in the figure below.
2. Downstream from the junction of two streams of different stream order, the higher stream order is maintained.
3. The determination of stream order must commence from the catchment boundary.



SCHEDULE 3 – PROPOSED OPERATIONS REQUIRING ASSESSMENT AND APPROVAL

Part 1 – Proposed Operations Requiring Assessment and Regional Manager’s Approval

The field assessment to determine the suitability of the proposal must be undertaken by a suitably qualified person. This assessment forms part of the Operations Register.

Event ID (if applicable)	Operational plan code	State Forest OR other identifier (if not SF – eg county parish, lot DP, etc)	Compartment OR other identifier (eg property, lease)	Location/s (grid reference/s) <i>shown on attached operational map</i>	Co-ordinates system: <input type="checkbox"/> AMG 66 <input type="checkbox"/> MGA 94
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Activity requiring this report <i>Tick the boxes relevant to the proposed action</i>	Relevant IFOA clause
<input type="checkbox"/> maintain a dam / tank (attach the report required by the IFOA)	Clause 295
<input type="checkbox"/> construct / <input type="checkbox"/> re-open / <input type="checkbox"/> upgrade A <input type="checkbox"/> road / <input type="checkbox"/> bush track / <input type="checkbox"/> fire trail <i>through</i> : AND / OR <input type="checkbox"/> remove (by snig/forward) timber [<i>including</i> <input type="checkbox"/> construct, create or re-open an extraction track before it can be removed] <i>through</i> (with no TSp record on the route):	<input type="checkbox"/> a drainage feature protection zone <input type="checkbox"/> heath or rocky outcrop/cliff ESA <input type="checkbox"/> a Zone 3A ESA/FMZ 2 or 3A <input type="checkbox"/> ESA for Part 2 Box Gum Woodland EEC <input type="checkbox"/> EEC
Quantity of product that would otherwise be inaccessible: about m ³ /t	

1. Dimensions of the area of protection zone or ESA that will be affected by the activity Other explanation / details are <input type="checkbox"/> attached	Length m x Width m	<i>Tick the boxes relevant to the proposed action</i>
2. For construct/open/upgrade a road/track/trail and/or remove timber (including extraction track work) through the zone:	<input type="checkbox"/> There is no practicable alternative route available – an explanation is attached .	
3. Ameliorative measures to reduce impacts on environment (including threatened species, threatened species habitat or water quality) will include	Application of: <input type="checkbox"/> IFOA conditions, <input type="checkbox"/> Other standard conditions (list is attached). <input type="checkbox"/> The attached site-specific measures.	
4. Threatened plant species records within 50m of the activity: Threatened animal species records within 100m of the activity:	<input type="checkbox"/> There are no records. OR <input type="checkbox"/> The attached site-specific measures limit risk to the species. <input type="checkbox"/> There are no records. OR <input type="checkbox"/> The attached site-specific measures limit risk to the species.	
5. Barriers/threats to threatened animal species Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to create a barrier to the movement of threatened animal species. <input type="checkbox"/> The activity is not likely to increase the threats to threatened animal species.	
6. Habitat features Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to significantly affect important habitat features, such as hollow-bearing trees, waterbodies or threatened species habitat.	
7. Introduction of pests and weeds Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to increase the presence of pests or weeds. OR <input type="checkbox"/> The attached site-specific measures limit risk posed by possible pests and weeds.	

Prepared by / / FNSW (date) (signed) (name) (position)		Authorised by / / FNSW (date) (signed) (name) (position)
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Part 2 – Proposed Operations Requiring Assessment and DECCW Approval

The field assessment to determine the suitability of the proposal must be undertaken by a suitably qualified person. This assessment forms part of the Operations Register.

Event ID (if applicable)	Operational plan code	State Forest OR other identifier (if not SF – eg county parish, lot DP, etc)	Compartment OR other identifier (eg property, lease)	Location/s (grid reference/s) <i>shown on attached operational map</i>	C-ordinates system: <input type="checkbox"/> AMG 66 <input type="checkbox"/> MGA 94
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Activity requiring this report <i>Tick the boxes relevant to the proposed action</i>	Relevant IFOA clause
<input type="checkbox"/> construct / <input type="checkbox"/> re-open / <input type="checkbox"/> upgrade A <input type="checkbox"/> road / <input type="checkbox"/> bush track / <input type="checkbox"/> fire trail <i>through</i> : AND / OR <input type="checkbox"/> remove (by snig/forward) timber [<i>including</i> <input type="checkbox"/> construct, create or re-open an extraction track before it can be removed] <i>through</i> (with a TSp record on the route):	<input type="checkbox"/> a drainage feature protection zone <input type="checkbox"/> a heath or rocky outcrop / cliff ESA <input type="checkbox"/> Zone 3A ESA/FMZ 2 or 3A <input type="checkbox"/> ESA for Part 2 Box Gum Woodland EEC
<input type="checkbox"/> remove (by snig/forward) timber [<i>including</i> <input type="checkbox"/> construct, create or re-open an extraction track before it can be removed] <i>through</i> species protection zone ESA AND / OR <input type="checkbox"/> construct / <input type="checkbox"/> re-open / <input type="checkbox"/> upgrade A <input type="checkbox"/> road / <input type="checkbox"/> bush track / <input type="checkbox"/> fire trail <i>through</i> a species protection zone ESA	Clause 28, 115, 129, 271 and 286 Clause 272 Clause 287
Quantity of product that would otherwise be inaccessible: about m ³ /t	
Vegetation affected: (floristics/structure)	

1. Dimensions of the area of protection zone ESA/FMZ 2 or 3A that will be affected by the activity Other explanation / details are <input type="checkbox"/> attached	Length m x Width m	Tick the boxes relevant to the proposed action
2. Reason for approving the activity:	<input type="checkbox"/> There is no practicable alternative route available – an explanation is attached .	
3. Ameliorative measures to reduce impacts on threatened species, threatened species habitat or water quality will include	Application of: <input type="checkbox"/> IFOA conditions, <input type="checkbox"/> Other standard conditions (list is attached). <input type="checkbox"/> The attached site-specific measures.	
4. Threatened plant species records within 50m of the activity: Threatened animal species records within 100m of the activity:	<input type="checkbox"/> There are no records. OR <input type="checkbox"/> The attached site-specific measures limit risk to the species. <input type="checkbox"/> There are no records. OR <input type="checkbox"/> The attached site-specific measures limit risk to the species.	
5. Barriers/threats to threatened animal species Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to create a barrier to the movement of threatened animal species. <input type="checkbox"/> The activity is not likely to increase the threats to threatened animal species.	
6. Habitat features Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to significantly affect important habitat features, such as hollow-bearing trees, waterbodies or threatened species habitat.	
7. Introduction of pests and weeds Other explanation / details are <input type="checkbox"/> attached .	<input type="checkbox"/> The activity is not likely to increase the presence of pests or weeds. OR <input type="checkbox"/> The attached site-specific conditions limit risk posed by possible pests and weeds.	

Prepared by / /
 FNSW (date) (signed) (name) (position)

Approved by / /
 DECCW (date) (signed) (name) (position)

Authorised by / /
 FNSW (date) (signed) (name) (position)

Further information as indicated on page 1 – DECCW approval form

1	Area of zone affected
2	Confirm the absence of a practicable alternative route
3	Specific measures to limit risk to threatened species, their habitat, and water quality
4	Site-specific measures to limit risk to: <i>[include the species and proximity to the activity site]</i> * Threatened plant species within 50m * Threatened animal species within 100m
5	Barriers/threats to threatened animal species
6	Habitat features
7	Introduction of pests and weeds

Part 3 – Matters Requiring Assessment and Forests NSW Approval

The field assessment to determine the suitability of the proposal must be undertaken by a suitably qualified person.

Event ID (if applicable)	Operational plan code	State Forest OR other identifier (if not SF – eg county parish, lot DP, etc)	Compartment OR other identifier (eg property, lease)	Location/s (grid reference/s) <i>shown on attached operational map</i>	Co-ordinates system: <input type="checkbox"/> AMG 66 <input type="checkbox"/> MGA 94
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Activity requiring this report	<i>Tick the boxes relevant to the proposed action</i>	Relevant IFOA clause
(a) <input type="checkbox"/> blading-off a road		cl. 324
(b) <input type="checkbox"/> clear beyond 5m upstream or downstream from a crossing		cl. 340
(c) <input type="checkbox"/> remove machine from buffer strip when soil is saturated		cl. 347

	<i>Tick the boxes relevant to the proposed action</i>
Reasons why the activity must be undertaken Other explanation / details are <input type="checkbox"/> attached.	(b) <input type="checkbox"/> To allow sufficient clearing to properly construct/maintain the crossing.
<i>For (b) and (c) why not wait until conditions dry out?</i>	(a & c) <input type="checkbox"/> To allow removal of (1) the machine or (2) timber and/or vehicles and/or equipment.
Other explanation / details are <input type="checkbox"/> attached.	<input type="checkbox"/> It is needed so the operation can move from the area.
	<input type="checkbox"/> It is needed to supply a customer whose timber stocks are low.
	<input type="checkbox"/> Other:
(a) For clearing beyond 5m upstream or downstream of a crossing: Other explanation / details are <input type="checkbox"/> attached.	<input type="checkbox"/> The additional clearing will be limited to the extent necessary, being: metres upstream and metres downstream.
(b) For blading-off a road: Other explanation / details are <input type="checkbox"/> attached.	<input type="checkbox"/> Topsoil will be stockpiled in a recoverable position.
	<input type="checkbox"/> Topsoil will be respread on completion of the operation.
	<input type="checkbox"/> Any damage to the road surface or drainage structures will be repaired.
(c) For removing machinery from buffer strip when soil is saturated: Other explanation / details are <input type="checkbox"/> attached.	<input type="checkbox"/> Soil disturbance will be minimised as far as practicable during the removal.
	<input type="checkbox"/> The area will be remediated as soon as practicable once the soil is no longer saturated.

Prepared by / / FNSW (date) (signed) (name) (position)		Authorised by / / FNSW (date) (signed) (name) (position)	Regional Manager (position)
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Further information as indicated on page 1 – FNSW approval form

	Reasons why the activity must be undertaken
a) b)	Why not wait until conditions dry out
a)	Clearing beyond 5m upstream or downstream
b)	Blading-off
c)	Removing machinery from buffer strip when soil is saturated

SCHEDULE 4 - SPECIES TO WHICH DIVISION 2, PART 3.1 NOT APPLICABLE

(Clause 144)

PART 1 – SPECIES TO WHICH SPECIES PROTECTION ZONES RELATE OR FOR WHICH OTHER SPECIFIC MEASURES ARE REQUIRED

Acacia jucunda (Yetman wattle)
Barking owl
Bertya sp. A Cobar-Coolabah (also named *Bertya opponens*)
Black-breasted buzzard
Black flying-fox
Border thick-tailed gecko
Brown treecreeper (eastern subspecies)
Bush stone-curlew
Cadellia pentastylis (Ooline)
Chalinolobus dwyeri (Large-eared pied bat)
Chalinolobus picatus (Little pied bat)
Diuris tricolor (Pine donkey orchid)
Falsistrellus tasmaniensis (Eastern false pipistrelle)
Five-clawed worm-skink
Gilbert's whistler
Glossy black-cockatoo
Grey falcon
Grey-headed flying-fox
Homoranthus darwinioides
Hooded robin
Indigofera efoliata (Leafless indigo)
Koala
Malleefowl
Masked owl
Miniopterus australis (Little bentwing-bat)
Miniopterus schreibersii oceanensis (Eastern bentwing-bat)
Monotaxis macrophylla (Large-leafed Monotaxis)
Mormopterus spp. (Freetail-bats)
Nyctophilus timoriensis (Greater long-eared bat)
Painted honeyeater
Pilliga mouse
Phebalium glandulosum subsp. *eglandulosum* (Rusty Desert Phebalium)
Platyzoma microphyllum (Braid fern)
Polygala linariifolia (Native milkwort)
Pomaderris queenslandica (Scant Pomaderris)
Pterostylis cobarensis (Greenhood orchid)
Red-tailed black-cockatoo
Regent honeyeater
Saccolaimus flaviventris (Yellow-bellied sheath-tail-bat)
Scoteanax rueppellii (Greater broad-nosed bat)
Spotted-tailed quoll
Square-tailed kite
Squirrel glider
Swainsona recta (Mountain Swainson-pea)
Swainsona sericea (Silky Swainson-pea)
Turquoise parrot
Tylophora linearis
Vespadelus troughtoni (Eastern cave bat)
Zieria ingramii (Keith's Zieria)

PART 2 – SPECIES ADEQUATELY PROTECTED BY GENERAL PROVISIONS (SUCH AS FMZs 3A)

Astrotricha roddii
Australasian bittern
Bell's turtle
Black-chinned honeyeater (Eastern subsp.)
Black-necked stork
Blue-billed duck
Booroolong frog
Brolga
Common planigale
Cotton pygmy-goose
Cyperus conicus
Diamond firetail
Eastern pygmy-possum
Grey-crowned babbler (eastern subsp.)
Haloragis exalata (Square raspwort)
Lepidium monoplacoides (Winged peppergrass)
Magpie goose
Major Mitchell's cockatoo
Swift parrot
Speckled warbler

SCHEDULE 5 – TARGETED SURVEYS FOR PLANTS AND ANIMALS

(Part 3.2)

PART 1 – TARGETED REGENT HONEYEATER SURVEY

1. Number and size of search sites

- (1) The number of sites searched (“search sites”) for the regent honeyeater must be at least the number calculated at the rate of 1.5 sites per 100 hectares of the regent honeyeater’s known habitat within the compartment or other tract of land (rounded up or down to the nearest whole number).
- (2) However, if the regent honeyeater’s known habitat within the compartment or other tract of land is less than 100 hectares, then at least one site still needs to be searched.
- (3) Each search site must be at least one hectare in area.
- (4) Subclauses (1) and (2) do not apply to a survey carried out in preparation for ancillary road construction. In that case, the number of search sites for the regent honeyeater must be at least the number calculated at the rate of 1 site per kilometre of the road or proposed road that lies (wholly or partly) within the regent honeyeater’s known habitat. If less than one kilometre of the road or proposed road lies within the known habitat, then at least one site still needs to be searched.

2. Spacing and location of search sites

- (1) Subject to subclause (2), the boundary of each search site must be at least 500 metres from the boundary of any other site, where practicable.
- (2) Search sites must include any area within the compartment or other tract of land, or within 100 metres of the boundary of the compartment or other tract of land (if within State forest), that contains a permanent water body (including a dam) or flowering eucalypt trees.
- (3) If there are not enough areas within the compartment or other tract of land (and within 100 metres of it) with permanent water bodies or flowering eucalypt trees on which to locate the required number of search sites, then the remaining search sites are to be located in other suitable habitat for the regent honeyeater.
- (4) Subclause (2) does not require the number of search sites, or size of each search site, to be more than the minimum number or minimum size required under clause 1 of this Schedule.
- (5) To avoid doubt, this clause applies to a survey carried out in preparation for ancillary road construction (the compartment or other tract of land being the footprint of the road or proposed road in that case).

3. Timing of survey

- (1) The survey must be carried out during the period from winter to mid-summer (that is, between June and mid January).

- (2) The survey must be carried out during the early morning (that is, the time of day between sunrise and up to three hours after sunrise).

4. Time spent on each search

Each search site must be searched for regent honeyeaters, including by listening for their call, for at least 20 minutes.

PART 2 – TARGETED NOCTURNAL CALL PLAYBACK SURVEY– FOR BUSH STONE-CURLEW, POWERFUL OWL AND SQUIRREL GLIDER

Note: Although a survey for the barking owl and masked owl in accordance with this Part is not required, if such a survey is carried out, then the location of planning areas and species protection zones for each species is affected – see clauses 255 and 256 respectively.

5. Playback sites for each targeted species and number of playback sites for each species

- (1) Sites at which the procedure described in clause 7 of this Schedule (“playback sites”) must be carried out are to be selected separately for each target species (that is, each species for whom the targeted nocturnal playback procedure is required under clause 173).
- (2) The number of playback sites for each target species must be at least the number calculated at the rate of one site per 100 hectares of the known habitat of that species within the compartment or other tract of land. If the known habitat is less than 100 hectares, then one playback site is still required.
- (3) Subclause (2) does not apply to a survey carried out in preparation for ancillary road construction. In that case, the number of playback sites for each target species must be at least the number calculated at the rate of 1 site per kilometre of the road or proposed road that lies (wholly or partly) within the species’ known habitat. If less than one kilometre of the road or proposed road lies within the known habitat, then one playback site is still required.

6. Spacing and location of playback sites for each target species

- (1) Each playback site for a target species must be at least one kilometre from any other playback site for that species.
- (2) Areas that are most likely to produce the best response from the target species must be selected as playback sites for that species.
- (3) Nothing in clause (5) (1) of this Schedule prevents the same area being selected as a playback site for more than one target species in accordance with this clause if the area meets the criteria for selection set out in this clause for each such species.
- (4) Playback sites are to be located, not only within the compartment or other tract of land, but also within the area outside the compartment or other tract between its boundary and 100 metres from that boundary (if that area is located within State forest).

- (5) To avoid doubt, this clause applies to a survey carried out in preparation for ancillary road construction (the compartment or other tract of land being the footprint of the road or proposed road in that case).

7. Procedure at each playback site

- (1) A person carrying out the survey at a playback site must spend the first ten minutes at the site listening for the call of the target species concerned. Following that, if the target species has not been heard, a person must play the call of the target species for at least 5 minutes and then, immediately afterwards, listen for at least 2 minutes for the target species.
- (2) A good quality audio player must be used to play the calls of the target species. Each call must be amplified through at least a nine volt megaphone (or through similar or better equipment).
- (3) Before leaving a playback site for a target species, a person must search for the species using a spotlight, for at least 10 minutes or until the target species has been found or heard (whichever is the shorter period).

8. Repetition of procedure at playback site

The procedure described in clause 7 of this Schedule is to be repeated at each playback site for a target species on a second night if the species was not heard (or seen) on the first night at the site.

9. Timing of survey

The procedure described in clause 7 of this Schedule is not to be carried out when it is windy or rainy, if it is practicable to carry it out at another time.

PART 3 – TARGETED SPOTLIGHT SURVEY – FOR BLACK-STRIPED WALLABY, PALE-HEADED SNAKE, RUFIOUS BETTONG, SQUIRREL GLIDER AND ZIGZAG VELVET GECKO

10. Transects for each targeted species

The transects required for a targeted spotlight survey under this Part are to be selected separately for each target species (that is, each species for whom a spotlight survey is required under clause 173).

Transects are not required to be separately selected for any additional species that must be searched for during a targeted spotlight survey because of clause 174.

11. Length of spotlight transect or transects

- (1) The transect or transects required for a targeted spotlight survey in relation to each target species must cover at least the distance calculated at the rate of one kilometre per 100 hectares of known habitat for that species within the compartment or other tract of land. If the known habitat of the species is less than 100 hectares, the transect must still be at least one kilometre.
- (2) If the sum of the areas comprising known habitat for all the target species is more than the area of the compartment or other tract of land:

- (a) the minimum distance that the transect or transects for all the species must cover is reduced to a distance calculated at the rate of one kilometre per 100 hectares of the compartment or tract, and
 - (b) the length of the transect or transects for each target species is to be calculated according to the proportion that the known habitat for that species within the compartment or other tract of land bears to the sum of the areas comprising known habitat for all the target species within the compartment or tract.
- (3) Subclauses (1) and (2) do not apply to a survey carried out in preparation for ancillary road construction. In that case, the transect or transects must cover at least the distance calculated at the rate of one kilometre per each kilometre of the road or proposed road that lies (wholly or partly) within the species' known habitat. If less than one kilometre of the road or proposed road lies within the known habitat, then the transect must still be at least one kilometre.
- (4) The total length of the transect or transects under subclause (3) for all the target species is not required to exceed the total length of the road or proposed road in any circumstances. If necessary, the length of the transect or transects for each target species that would otherwise be required under subclause (3) may be reduced according to the proportion that the known habitat for that species along the road or proposed road bears to the sum of the areas comprising known habitat for all the target species along the road or proposed road.

12. Location of spotlight transect or transects

- (1) The transect or transects for each target species are to be located in the most suitable habitat for that species within the compartment or other tract of land and any area within 100 metres of the compartment or tract (if that area is located within State forest). (The most suitable habitat may be the species' known habitat).
- (2) If there is not enough suitable habitat within the land described in subclause (1) in which to locate the entire length of the transect or transects required for the species, then the remainder of the transect or transects for the species are to be located in the species' known habitat within the compartment, or other tract of land, and known habitat within 100 metres of the compartment or tract (if within State forest).

Note: if spotlighting is to be undertaken on foot, the transect may be the route of a road.

- (3) Clause 10 does not prevent the same route being selected as a transect for more than one target species if the route meets the criteria for selection set out in this clause for each such species.
- (4) To avoid doubt, this clause applies to a survey carried out in preparation for ancillary road construction (the compartment or other tract of land being the footprint of the road or proposed road in that case).

13. Procedure for spotlight survey along transect or transects

- (1) The entire length of the transect or transects (for each target species) must be spotlighted twice, on two separate nights.
- (2) On at least one night, spotlighting must be carried out by persons walking along the transect or transects. On the other night, spotlighting may be carried out from a vehicle.

Note: Spotlighting carried out by persons on foot is preferable to spotlighting from a vehicle.

- (3) At least two persons must be observers at each stage of spotlighting along the length of the transect or transects.
- (4) A spotlight of at least 50 watts must be used by each observer when spotlighting is being carried out on foot. A spotlight of 100 watts must be used by each observer when spotlighting is being carried out from a vehicle.
- (5) During spotlighting from a vehicle, the speed of the vehicle must never exceed 5 kilometres per hour.
- (6) During spotlighting on foot, each observer must walk slowly along the transect.

14. Timing of spotlight survey

- (1) A targeted spotlight survey may only be carried out between spring and autumn (that is, the period from September to May inclusive).
- (2) Spotlighting along the transect or transects must not be carried out when it is windy, cold or rainy, if it is practicable to carry out the spotlighting at another time.

PART 4 – TARGETED SCAT AND TRACK SURVEY – FOR BLACK-STRIPED WALLABY, BRUSH-TAILED PHASCOGALE, RUFIOUS BETTONG AND SPOTTED-TAILED QUOLL

15. Transects for each target species

The transects required for a targeted scat and track survey under this Part are to be selected separately for each target species (that is, the species for whom a spotlight survey is required under clause 173).

16. Length of scat and track transects

- (1) The scat and track transect or transects required for a targeted scat and track survey in relation to a target species under this Part must cover at least the distance calculated at the rate of 200 metres per 100 hectares of the known habitat of that species within the compartment or other tract of land. If the known habitat of the species is less than 100 hectares, the transect must still be at least 200 metres.
- (2) If the sum of the areas comprising known habitat for all the target species is more than the area of the compartment or other tract of land:
 - (a) the minimum distance that the transect or transects for all the species must cover is reduced to a distance calculated at the rate of 200 metres per 100 hectares of the compartment or tract, and
 - (b) the length of the transect or transects for each target species is to be calculated according to the proportion that the known habitat for that species within the compartment or other tract of land bears to the sum of the areas comprising known habitat for all the target species within the compartment or tract.

17. Location and route of scat and track transects

- (1) The scat and track transects selected for a target species must comprise sections of roads, tracks or trails that have surfaces on which tracks may be left by individuals of the species.
- (2) Subject to subclause (1), the scat and track transects for the target species must also be located in, or as close as possible to:
 - (a) the most suitable habitat for the species within the compartment or other tract of land (and any area within 100 metres of that compartment or tract if that area is located in State forest), or
 - (b) the species' known habitat within the compartment or other tract of land (and any area within 100 metres of that compartment or tract if that area is located in State forest) if there is insufficient suitable habitat for the species through or near which roads, tracks or trails pass.
- (3) Clause 15 does not prevent the same route (that is, a section of a road, track or trail) being selected as a transect for more than one target species if the route meets the criteria for selection set out in this clause for each such species.

18. Procedure for targeted scat and track survey

- (1) The survey must be carried out by one or more persons, walking slowly along each scat and track transect (being a section of a road, track or trail) and together covering the entire length of the transect.
- (2) Scats (whether or not of the target species) must be looked for along the edge of the road, track or trail. The search must include looking for scats in open areas, under bushes and on large logs by the side of or near the side of the road, track or trail.
- (3) A person conducting the survey must also look for fresh tracks of individuals of each of the target species along the road, track or trail. Tracks of any threatened species left on the surface of the road, track or trail must also be identified, if possible.
- (4) All scats of predator species (including raptor species) found in the survey must be collected for analysis to determine if they contain evidence of any of the target species and any other threatened species.
- (5) All scats of threatened species (not just target species) found in the survey must be identified. If the person or persons conducting the survey cannot identify the scats as scats of a particular species or are unsure of their identity, the scats must be collected for later identification or analysis.

19. Scats collected during survey in field must be sent to expert for identification

Any scats collected under clause 18 of this Schedule must be forwarded to a person who has the necessary experience and skills to identify the scats as scats belonging to a particular species or to analyse any predator scats to determine whether they contain evidence of any target or threatened species eaten by the predator.

PART 5 – REPORTS OF TARGETED SURVEYS FOR ANIMAL SPECIES

20. Report of targeted survey for animal species

- (1) For the purposes of clause 176, the report of a targeted survey for animal species is to contain the following information about the survey and its results:
 - (a) the location of the compartment or other tract of land for which the survey was carried out (by providing the grid co-ordinates of that location and by including, if within a State forest, the State forest name and compartment number or numbers),
 - (b) the date or dates on which the survey was conducted,
 - (c) the type of survey (that is, a regent honeyeater targeted survey, targeted nocturnal call playback survey, targeted spotlight survey or targeted tract and scat survey),
 - (d) the name or names of the person or persons who carried out the survey in the field,
 - (e) the location of each search site, playback site, spotlight transect or scat or track transect (as the case may require), clearly marking these on a map with a scale that allows them to be adequately represented,
 - (f) the starting and finishing times for each continuous period spent in the field conducting the survey,
 - (g) the target species (that is, the species for which the survey was required under clause 173),
 - (h) a list of all records made or found during the survey of target species and other threatened species and a summary of each record,
 - (i) the weather conditions at the survey location for each day or night on which the survey is carried out.

- (2) The summary of each record of a target or other threatened species required under subclause (1) (h) must include the following:
 - (a) type of record (such as a sighting, heard call, a scat of the species, a predator's scat and hair),
 - (b) location of the record (by referring to its grid co-ordinates), accurate to within 100 metres (if the type of evidence constituting the record permits this degree of accuracy),
 - (c) if the record is a predator's scat, the name of the person who analysed the scat and found evidence of the target or other threatened species concerned and the reliability of the analysis,
 - (d) if the record is a scat collected and sent to a person for identification, the name of the person who identified the scat as belonging to the target or other threatened species.

Note: Clause 178 also requires the report of a targeted survey for animals to include a summary of a record of any species of bat or flying-fox or an endangered population found incidentally in the targeted survey.

- (3) The information concerning weather conditions at a survey location must include the following details:
 - (a) temperature (in degrees Celsius) on arrival at location,
 - (b) wind on arrival at the location, by using numerals as indicated: 0=calm; 1=light wind, causing rustling of leaves; 2=moderate wind, causing branches to move; 3=strong wind, making movement difficult,
 - (c) rain, by using numerals as indicated: 0=rain during survey; 1=evidence of rain in the last 24 hours at location; 2=no evidence of rain in the last 24 hours (including during the survey),

- (d) night light on arrival at location, by using numerals as indicated: 1=very dark, cloudy and no moon; 2 =dark, with quarter moon or with more moon but heavy cloud; 3=details of landscape visible, with some moon showing (but less than half) and clear sky; 4= bright, with half moon or more and no cloud.

PART 6 – TARGETED SURVEYS FOR PLANT SPECIES

21. Timing and effort required for each targeted survey

- (1) Each targeted survey for a species of plant specified in column 1 of the table set out at the end of this clause must be carried out in the season specified next to it in column 2 of the table.
- (2) Before carrying out any targeted survey for a species of plant, Forests NSW must identify and map the area or areas of land within the compartment or other tract, or within the State forest concerned, that constitute potentially suitable habitat for that species. The targeted survey for the species must be carried out along a transect or transects that pass through the areas so identified and mapped. The transect or transects for the survey must cover at least the distance calculated at the rate specified for the survey in column 3 of the table.
- (3) The time spent in the field carrying out a targeted survey for a species of plant must be at least the amount of time calculated at the rate specified for the survey in column 4 of the table.
- (4) The reference to 100 hectares in columns 3 and 4 is a reference to 100 hectares of the compartment or other tract of land or the State forest in which the survey is conducted.
- (5) A survey for more than one species of plant may be carried out concurrently along the same transect or transect if the species have the same potentially suitable habitat and a survey for each of the species may be carried out in the same season.

Column 1 Plant species	Column 2 Season/s for survey	Column 3 Total length of transect/s	Column 4 Time to be spent in field
Acacia jucunda	Any season	2km per 100 ha	2hr per 100ha
Cadellia pentastylis	Any season	1km per 100 ha	1hr per 100 ha
Homoranthus darwinioides	Spring flowering season	2km per 100 ha	3hr per 100 ha
Indigofera efoliata	Spring flowering season	2km per 100 ha	3hr per 100 ha
Phebalium glandulosum subsp. eglandulosum	Spring flowering season	2km per 100 ha	2hr per 100 ha
Platyzoma microphyllum	Any season	2km per 100 ha	2hr per 100 ha
Zieria ingramii	Spring flowering season	2km per 100 ha	3hr per 100 ha

22. Report of targeted survey for plant species

- (1) For the purpose of clause 177 (2), the report of a targeted survey for a plant species is to contain the following information about the survey and its results:

- (a) the name of the State forest in which the survey was carried out or the location of the compartment or other tract of land for which the survey was carried out (by providing the grid co-ordinates of that location and by including the State forest name and the compartment number or numbers),
 - (b) the date or dates on which the survey was conducted,
 - (c) the name or names of the person or persons who carried out the survey in the field,
 - (d) the starting and finishing times for each continuous period spent in the field conducting the survey,
 - (e) the location of the survey transect or transects, clearly marking these on a map with a scale that allows them to be adequately represented,
 - (f) the target species of plant (that is, the species for which the survey was required under clause 177),
 - (g) a list of all records of the target species of plant made or found during the survey and a summary of each record,
 - (h) a list of all records made or found during the survey of any other threatened species and a summary of each record.
- (2) The summary of each record of a target species or other threatened species required under subclause (1) (g) or (h) must include the following:
- (a) type of record (such as an observation of a whole plant or part of a plant such as seeds or flowers or, in the case of a threatened species of animal, a sighting, heard call, scats and hair),
 - (b) location of the record (by referring to its grid co-ordinates), accurate to within 100 metres (if the type of evidence constituting the record permits this degree of accuracy),
 - (c) if the record is a predator's scat, the name of the person who analysed the scat and found evidence of the threatened species of animal concerned and the reliability of the analysis,
 - (d) if the record is a scat collected and sent to a person for identification, the name of the person who identified the scat as belonging to the threatened species of animal concerned.

Note: Clause 178 also requires the report of a targeted survey for plants to include a summary of a record of any species of bat or flying-fox or an endangered population found incidentally in the targeted survey.

SCHEDULE 6 – STUMP TO DBHOB LOOKUP TABLES

(Clause 232)

White cypress stump to Dbhob lookup table

Stump Diameter (cm)	Stump Height (m)												
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3
10	8.0	8.5	8.8	9.0	9.2	9.3	9.4	9.6	9.7	9.8	9.8	9.9	10.0
11	8.8	9.3	9.6	9.9	10.1	10.2	10.4	10.5	10.6	10.7	10.8	10.9	11.0
12	9.6	10.2	10.5	10.8	11.0	11.2	11.3	11.5	11.6	11.7	11.8	11.9	12.0
13	10.4	11.0	11.4	11.7	11.9	12.1	12.3	12.4	12.6	12.7	12.8	12.9	13.0
14	11.2	11.9	12.3	12.6	12.8	13.0	13.2	13.4	13.5	13.7	13.8	13.9	14.0
15	12.0	12.7	13.2	13.5	13.7	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.0
16	12.8	13.6	14.0	14.4	14.7	14.9	15.1	15.3	15.5	15.6	15.7	15.9	16.0
17	13.7	14.4	14.9	15.3	15.6	15.8	16.1	16.2	16.4	16.6	16.7	16.9	17.0
18	14.5	15.3	15.8	16.2	16.5	16.8	17.0	17.2	17.4	17.6	17.7	17.9	18.0
19	15.3	16.1	16.7	17.1	17.4	17.7	17.9	18.2	18.4	18.5	18.7	18.9	19.0
20	16.1	17.0	17.5	18.0	18.3	18.6	18.9	19.1	19.3	19.5	19.7	19.8	20.0
21	16.9	17.8	18.4	18.9	19.2	19.6	19.8	20.1	20.3	20.5	20.7	20.8	21.0
22	17.7	18.7	19.3	19.8	20.2	20.5	20.8	21.0	21.3	21.5	21.7	21.8	22.0
23	18.5	19.5	20.2	20.7	21.1	21.4	21.7	22.0	22.2	22.4	22.6	22.8	23.0
24	19.3	20.4	21.0	21.6	22.0	22.3	22.7	22.9	23.2	23.4	23.6	23.8	24.0
25	20.1	21.2	21.9	22.5	22.9	23.3	23.6	23.9	24.2	24.4	24.6	24.8	25.0
26	20.9	22.1	22.8	23.4	23.8	24.2	24.5	24.8	25.1	25.4	25.6	25.8	26.0
27	21.7	22.9	23.7	24.3	24.7	25.1	25.5	25.8	26.1	26.3	26.6	26.8	27.0
28	22.5	23.8	24.6	25.2	25.7	26.1	26.4	26.8	27.0	27.3	27.6	27.8	28.0
29	23.3	24.6	25.4	26.1	26.6	27.0	27.4	27.7	28.0	28.3	28.5	28.8	29.0
30	24.1	25.4	26.3	27.0	27.5	27.9	28.3	28.7	29.0	29.3	29.5	29.8	30.0
31	24.9	26.3	27.2	27.9	28.4	28.9	29.3	29.6	29.9	30.2	30.5	30.8	31.0
32	25.7	27.1	28.1	28.8	29.3	29.8	30.2	30.6	30.9	31.2	31.5	31.8	32.0
33	26.5	28.0	28.9	29.7	30.2	30.7	31.2	31.5	31.9	32.2	32.5	32.7	33.0
34	27.3	28.8	29.8	30.6	31.2	31.7	32.1	32.5	32.8	33.2	33.5	33.7	34.0
35	28.1	29.7	30.7	31.5	32.1	32.6	33.0	33.4	33.8	34.1	34.4	34.7	35.0
36	28.9	30.5	31.6	32.4	33.0	33.5	34.0	34.4	34.8	35.1	35.4	35.7	36.0
37	29.7	31.4	32.5	33.3	33.9	34.5	34.9	35.4	35.7	36.1	36.4	36.7	37.0
38	30.5	32.2	33.3	34.2	34.8	35.4	35.9	36.3	36.7	37.1	37.4	37.7	38.0
39	31.3	33.1	34.2	35.1	35.7	36.3	36.8	37.3	37.7	38.0	38.4	38.7	39.0
40	32.1	33.9	35.1	35.9	36.7	37.2	37.8	38.2	38.6	39.0	39.4	39.7	40.0
41	32.9	34.8	36.0	36.8	37.6	38.2	38.7	39.2	39.6	40.0	40.4	40.7	41.0
42	33.7	35.6	36.8	37.7	38.5	39.1	39.7	40.1	40.6	41.0	41.3	41.7	42.0
43	34.5	36.5	37.7	38.6	39.4	40.0	40.6	41.1	41.5	41.9	42.3	42.7	43.0
44	35.3	37.3	38.6	39.5	40.3	41.0	41.5	42.0	42.5	42.9	43.3	43.7	44.0
45	36.1	38.2	39.5	40.4	41.2	41.9	42.5	43.0	43.5	43.9	44.3	44.7	45.0
46	36.9	39.0	40.3	41.3	42.2	42.8	43.4	44.0	44.4	44.9	45.3	45.7	46.0
47	37.7	39.9	41.2	42.2	43.1	43.8	44.4	44.9	45.4	45.9	46.3	46.6	47.0
48	38.5	40.7	42.1	43.1	44.0	44.7	45.3	45.9	46.4	46.8	47.2	47.6	48.0
49	39.4	41.6	43.0	44.0	44.9	45.6	46.3	46.8	47.3	47.8	48.2	48.6	49.0
50	40.2	42.4	43.9	44.9	45.8	46.6	47.2	47.8	48.3	48.8	49.2	49.6	50.0
51	41.0	43.3	44.7	45.8	46.7	47.5	48.2	48.7	49.3	49.8	50.2	50.6	51.0
52	41.8	44.1	45.6	46.7	47.6	48.4	49.1	49.7	50.2	50.7	51.2	51.6	52.0
53	42.6	45.0	46.5	47.6	48.6	49.4	50.0	50.6	51.2	51.7	52.2	52.6	53.0
54	43.4	45.8	47.4	48.5	49.5	50.3	51.0	51.6	52.2	52.7	53.2	53.6	54.0
55	44.2	46.7	48.2	49.4	50.4	51.2	51.9	52.6	53.1	53.7	54.1	54.6	55.0
56	45.0	47.5	49.1	50.3	51.3	52.1	52.9	53.5	54.1	54.6	55.1	55.6	56.0
57	45.8	48.3	50.0	51.2	52.2	53.1	53.8	54.5	55.1	55.6	56.1	56.6	57.0
58	46.6	49.2	50.9	52.1	53.1	54.0	54.8	55.4	56.0	56.6	57.1	57.6	58.0
59	47.4	50.0	51.7	53.0	54.1	54.9	55.7	56.4	57.0	57.6	58.1	58.6	59.0
60	48.2	50.9	52.6	53.9	55.0	55.9	56.6	57.3	58.0	58.5	59.1	59.5	60.0
61	49.0	51.7	53.5	54.8	55.9	56.8	57.6	58.3	58.9	59.5	60.0	60.5	61.0
62	49.8	52.6	54.4	55.7	56.8	57.7	58.5	59.3	59.9	60.5	61.0	61.5	62.0
63	50.6	53.4	55.3	56.6	57.7	58.7	59.5	60.2	60.9	61.5	62.0	62.5	63.0
64	51.4	54.3	56.1	57.5	58.6	59.6	60.4	61.2	61.8	62.4	63.0	63.5	64.0
65	52.2	55.1	57.0	58.4	59.6	60.5	61.4	62.1	62.8	63.4	64.0	64.5	65.0
66	53.0	56.0	57.9	59.3	60.5	61.5	62.3	63.1	63.8	64.4	65.0	65.5	66.0
67	53.8	56.8	58.8	60.2	61.4	62.4	63.3	64.0	64.7	65.4	65.9	66.5	67.0
68	54.6	57.7	59.6	61.1	62.3	63.3	64.2	65.0	65.7	66.3	66.9	67.5	68.0
69	55.4	58.5	60.5	62.0	63.2	64.3	65.1	65.9	66.7	67.3	67.9	68.5	69.0
70	56.2	59.4	61.4	62.9	64.1	65.2	66.1	66.9	67.6	68.3	68.9	69.5	70.0
71	57.0	60.2	62.3	63.8	65.1	66.1	67.0	67.9	68.6	69.3	69.9	70.5	71.0
72	57.8	61.1	63.1	64.7	66.0	67.0	68.0	68.8	69.6	70.2	70.9	71.5	72.0
73	58.6	61.9	64.0	65.6	66.9	68.0	68.9	69.8	70.5	71.2	71.9	72.4	73.0
74	59.4	62.8	64.9	66.5	67.8	68.9	69.9	70.7	71.5	72.2	72.8	73.4	74.0
75	60.2	63.6	65.8	67.4	68.7	69.8	70.8	71.7	72.5	73.2	73.8	74.4	75.0
76	61.0	64.5	66.7	68.3	69.6	70.8	71.8	72.6	73.4	74.1	74.8	75.4	76.0
77	61.8	65.3	67.5	69.2	70.6	71.7	72.7	73.6	74.4	75.1	75.8	76.4	77.0
78	62.6	66.2	68.4	70.1	71.5	72.6	73.6	74.5	75.4	76.1	76.8	77.4	78.0
79	63.4	67.0	69.3	71.0	72.4	73.6	74.6	75.5	76.3	77.1	77.8	78.4	79.0
80	64.2	67.9	70.2	71.9	73.3	74.5	75.5	76.5	77.3	78.0	78.7	79.4	80.0

Ironbark stump to Dbhob lookup table

Stump Diameter (cm)	Stump Height (m)												
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3
10	8.0	8.5	8.8	9.0	9.2	9.3	9.4	9.5	9.7	9.8	9.8	9.9	10.0
11	8.8	9.3	9.6	9.9	10.1	10.2	10.4	10.5	10.6	10.7	10.8	10.9	11.0
12	9.6	10.2	10.5	10.8	11.0	11.2	11.3	11.5	11.6	11.7	11.8	11.9	12.0
13	10.4	11.0	11.4	11.7	11.9	12.1	12.3	12.4	12.6	12.7	12.8	12.9	13.0
14	11.2	11.8	12.3	12.6	12.8	13.0	13.2	13.4	13.5	13.7	13.8	13.9	14.0
15	12.0	12.7	13.1	13.5	13.7	14.0	14.1	14.3	14.5	14.6	14.8	14.9	15.0
16	12.8	13.5	14.0	14.4	14.6	14.9	15.1	15.3	15.4	15.6	15.7	15.9	16.0
17	13.6	14.4	14.9	15.3	15.6	15.8	16.0	16.2	16.4	16.6	16.7	16.9	17.0
18	14.4	15.2	15.8	16.1	16.5	16.7	17.0	17.2	17.4	17.6	17.7	17.9	18.0
19	15.2	16.1	16.6	17.0	17.4	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.0
20	16.0	16.9	17.5	17.9	18.3	18.6	18.9	19.1	19.3	19.5	19.7	19.8	20.0
21	16.8	17.8	18.4	18.8	19.2	19.5	19.8	20.1	20.3	20.5	20.7	20.8	21.0
22	17.6	18.6	19.3	19.7	20.1	20.5	20.8	21.0	21.2	21.5	21.6	21.8	22.0
23	18.4	19.5	20.1	20.6	21.0	21.4	21.7	22.0	22.2	22.4	22.6	22.8	23.0
24	19.2	20.3	21.0	21.5	22.0	22.3	22.6	22.9	23.2	23.4	23.6	23.8	24.0
25	20.0	21.2	21.9	22.4	22.9	23.3	23.6	23.9	24.1	24.4	24.6	24.8	25.0
26	20.8	22.0	22.8	23.3	23.8	24.2	24.5	24.8	25.1	25.4	25.6	25.8	26.0
27	21.6	22.8	23.6	24.2	24.7	25.1	25.5	25.8	26.1	26.3	26.6	26.8	27.0
28	22.4	23.7	24.5	25.1	25.6	26.0	26.4	26.7	27.0	27.3	27.6	27.8	28.0
29	23.2	24.5	25.4	26.0	26.5	27.0	27.4	27.7	28.0	28.3	28.5	28.8	29.0
30	24.0	25.4	26.3	26.9	27.5	27.9	28.3	28.6	29.0	29.3	29.5	29.8	30.0
31	24.8	26.2	27.1	27.8	28.4	28.8	29.2	29.6	29.9	30.2	30.5	30.8	31.0
32	25.6	27.1	28.0	28.7	29.3	29.8	30.2	30.6	30.9	31.2	31.5	31.8	32.0
33	26.4	27.9	28.9	29.6	30.2	30.7	31.1	31.5	31.9	32.2	32.5	32.7	33.0
34	27.2	28.8	29.8	30.5	31.1	31.6	32.1	32.5	32.8	33.2	33.5	33.7	34.0
35	28.0	29.6	30.6	31.4	32.0	32.6	33.0	33.4	33.8	34.1	34.4	34.7	35.0
36	28.8	30.5	31.5	32.3	32.9	33.5	34.0	34.4	34.8	35.1	35.4	35.7	36.0
37	29.6	31.3	32.4	33.2	33.9	34.4	34.9	35.3	35.7	36.1	36.4	36.7	37.0
38	30.4	32.2	33.3	34.1	34.8	35.3	35.8	36.3	36.7	37.1	37.4	37.7	38.0
39	31.2	33.0	34.1	35.0	35.7	36.3	36.8	37.2	37.7	38.0	38.4	38.7	39.0
40	32.0	33.8	35.0	35.9	36.6	37.2	37.7	38.2	38.6	39.0	39.4	39.7	40.0
41	32.8	34.7	35.9	36.8	37.5	38.1	38.7	39.2	39.6	40.0	40.3	40.7	41.0
42	33.6	35.5	36.8	37.7	38.4	39.1	39.6	40.1	40.6	41.0	41.3	41.7	42.0
43	34.4	36.4	37.6	38.6	39.3	40.0	40.6	41.1	41.5	41.9	42.3	42.7	43.0
44	35.2	37.2	38.5	39.5	40.3	40.9	41.5	42.0	42.5	42.9	43.3	43.7	44.0
45	36.0	38.1	39.4	40.4	41.2	41.9	42.4	43.0	43.4	43.9	44.3	44.7	45.0
46	36.8	38.9	40.3	41.3	42.1	42.8	43.4	43.9	44.4	44.9	45.3	45.6	46.0
47	37.6	39.8	41.1	42.2	43.0	43.7	44.3	44.9	45.4	45.8	46.2	46.6	47.0
48	38.4	40.6	42.0	43.1	43.9	44.6	45.3	45.8	46.3	46.8	47.2	47.6	48.0
49	39.2	41.5	42.9	44.0	44.8	45.6	46.2	46.8	47.3	47.8	48.2	48.6	49.0
50	40.0	42.3	43.8	44.9	45.8	46.5	47.2	47.7	48.3	48.8	49.2	49.6	50.0
51	40.8	43.1	44.6	45.8	46.7	47.4	48.1	48.7	49.2	49.7	50.2	50.6	51.0
52	41.6	44.0	45.5	46.7	47.6	48.4	49.0	49.7	50.2	50.7	51.2	51.6	52.0
53	42.4	44.8	46.4	47.6	48.5	49.3	50.0	50.6	51.2	51.7	52.2	52.6	53.0
54	43.2	45.7	47.3	48.4	49.4	50.2	50.9	51.6	52.1	52.7	53.1	53.6	54.0
55	44.0	46.5	48.1	49.3	50.3	51.2	51.9	52.5	53.1	53.6	54.1	54.6	55.0
56	44.8	47.4	49.0	50.2	51.2	52.1	52.8	53.5	54.1	54.6	55.1	55.6	56.0
57	45.6	48.2	49.9	51.1	52.2	53.0	53.8	54.4	55.0	55.6	56.1	56.6	57.0
58	46.4	49.1	50.8	52.0	53.1	53.9	54.7	55.4	56.0	56.6	57.1	57.6	58.0
59	47.2	49.9	51.6	52.9	54.0	54.9	55.7	56.3	57.0	57.5	58.1	58.5	59.0
60	48.0	50.8	52.5	53.8	54.9	55.8	56.6	57.3	57.9	58.5	59.0	59.5	60.0
61	48.8	51.6	53.4	54.7	55.8	56.7	57.5	58.3	58.9	59.5	60.0	60.5	61.0
62	49.6	52.5	54.3	55.6	56.7	57.7	58.5	59.2	59.9	60.5	61.0	61.5	62.0
63	50.4	53.3	55.1	56.5	57.6	58.6	59.4	60.2	60.8	61.4	62.0	62.5	63.0
64	51.2	54.1	56.0	57.4	58.6	59.5	60.4	61.1	61.8	62.4	63.0	63.5	64.0
65	52.0	55.0	56.9	58.3	59.5	60.5	61.3	62.1	62.8	63.4	64.0	64.5	65.0
66	52.8	55.8	57.8	59.2	60.4	61.4	62.3	63.0	63.7	64.4	64.9	65.5	66.0
67	53.6	56.7	58.6	60.1	61.3	62.3	63.2	64.0	64.7	65.3	65.9	66.5	67.0
68	54.4	57.5	59.5	61.0	62.2	63.2	64.1	64.9	65.7	66.3	66.9	67.5	68.0
69	55.2	58.4	60.4	61.9	63.1	64.2	65.1	65.9	66.6	67.3	67.9	68.5	69.0
70	56.0	59.2	61.3	62.8	64.1	65.1	66.0	66.8	67.6	68.3	68.9	69.5	70.0
71	56.8	60.1	62.1	63.7	65.0	66.0	67.0	67.8	68.6	69.2	69.9	70.5	71.0
72	57.6	60.9	63.0	64.6	65.9	67.0	67.9	68.8	69.5	70.2	70.8	71.4	72.0
73	58.4	61.8	63.9	65.5	66.8	67.9	68.9	69.7	70.5	71.2	71.8	72.4	73.0
74	59.2	62.6	64.8	66.4	67.7	68.8	69.8	70.7	71.4	72.2	72.8	73.4	74.0
75	60.0	63.5	65.6	67.3	68.6	69.8	70.7	71.6	72.4	73.1	73.8	74.4	75.0
76	60.8	64.3	66.5	68.2	69.5	70.7	71.7	72.6	73.4	74.1	74.8	75.4	76.0
77	61.6	65.1	67.4	69.1	70.5	71.6	72.6	73.5	74.3	75.1	75.8	76.4	77.0
78	62.4	66.0	68.3	70.0	71.4	72.5	73.5	74.5	75.3	76.1	76.8	77.4	78.0
79	63.2	66.8	69.1	70.9	72.3	73.5	74.5	75.4	76.3	77.0	77.7	78.4	79.0
80	64.0	67.7	70.0	71.8	73.2	74.4	75.5	76.4	77.2	78.0	78.7	79.4	80.0

SCHEDULE 7 – SURVEY FOR BARKING OWL IN STATE FORESTS

(Clause 254)

A survey for the barking owl that is carried out in a State forest referred to in clause 254 (7) (b) in accordance with the requirements of this Schedule is a survey for the purposes of bringing that State forest within the barking owl roost and nest zone.

1. Survey for barking owl: initial call-playback survey and nest and roost survey

The survey of a State forest for the barking owl must include:

- (a) an initial call-playback survey for the barking owl that is carried out in accordance with clauses 2 and 3 of this Schedule, and
- (b) if the barking owl is seen or heard in the initial call-playback survey, a barking owl nest and roost survey that is carried out in accordance with clauses 5 to 8 of this Schedule.

2. Number and spacing of call-playback sites

- (1) The sites selected for the initial call-playback survey within the State forest must be at least one kilometre apart. Enough sites must be selected across the forest so that each site (other than a site within 2 kilometres of the boundary of the forest) is no more than 2 kilometres from at least four other sites.
- (2) However, the sites selected across the forest under subclause (1) need not be surveyed at the same time.

3. Timing and procedure for call-playback survey

- (1) The initial call-playback survey must be carried out at night-time between November and June. The following procedure must be carried out (in the following sequence) at each site selected under clause 2 of this Schedule for the survey:
 - (a) listen for the barking owl for 10 minutes,
 - (b) carry out the call-playback procedure described in clause 9 of this Schedule,
 - (c) listen for the barking owl for 2 minutes,
 - (d) listen for the barking owl for a further 10 minutes while searching for the owl with a spotlight.
- (2) The procedure described in subclause (1) is to be repeated at a site on a second night if the barking owl is not heard or seen at the site on the first night.

4. When is a barking owl nest and roost survey required?

A barking owl nest and roost survey must be carried out in a State forest if the barking owl is heard or seen during the initial call-playback survey for the forest.

5. Selection of sites for nest and roost survey

Sites must be selected within the State forest for the barking owl nest and roost survey within 2 kilometres of each site at or near which the barking owl is heard or seen during the initial call-playback survey in the forest. The same site may be selected.

6. Timing of barking owl roost and nest survey

The barking owl roost and nest survey for a State forest must be carried out between August and October at each of the sites selected under clause 5 of this Schedule.

7. Conduct of barking owl roost and nest survey

- (1) The barking owl nest and roost survey, at each site selected under clause 5 of this Schedule, is to commence either half an hour after sunset or an hour before dawn (so that it is carried out while it is twilight).

Note: The early evening and early morning times referred to in subclause (1) are the times at which nesting owls are most likely to be calling near their nests.

- (2) The first step in the survey is to listen for the barking owl until it is heard (but no more than one and a half hours of listening is required). If the barking owl is not heard, the call-playback procedure (as described in clause 9 of this Schedule) must be followed, but with such modifications as are considered desirable to minimise disturbance to any nesting owls (for example, lengthening the listening time between playing calls and stopping the playing of calls immediately on hearing an owl).
- (3) If no barking owl is heard during the call-playback procedure, a further 10 minutes must be spent listening for the owl.
- (4) If no barking owl is heard during the carrying out of the procedures described in subclauses (2) and (3), then those procedures must be repeated (to the extent necessary) on another evening or morning. If the barking owl is not heard on that second evening or morning, then the procedures must be repeated one more time. (If no barking owl is heard on the third occasion, then a daylight search under subclauses (6) and (7) is not required.)
- (5) When a person hears a barking owl, the person must note the direction from which the call came and move in that direction, closer to the location of the call (as best as he or she can determine). While the owl is calling, the person must continue to move in the direction of the call to attempt to refine the possible area in which an owl may be nesting.
- (6) Once the area in which a barking owl may be nesting is refined sufficiently (to enable a search for roosts and nests to be practicable), the area must be searched during daylight for nests and roosts of the owl.
- (7) The daylight search for roosts must include looking for pellets and whitewash of the barking owl, as well as for owls actually roosting. The search for nests is to include looking for trees that are likely to contain nests (because, for example, they have suitable hollows or are near major roost trees) and then watching those trees for signs of nesting (such as adult owls flying in and out of a hollow or juvenile owls calling).

8. Experience to carry out barking owl roost and nest survey

The barking owl roost and nest survey must be conducted or supervised by a person with the necessary skills and experience.

9. Call-playback procedure

The call-playback procedure is as follows (and is to be carried out in the following sequence):

- (a) 30 seconds of double calls of the barking owl played at low volume (being a volume at which humans can hear the calls up to 100 metres from the source),
- (b) 30 seconds of listening,
- (c) 30 seconds of double calls of the barking owl played at moderate volume (being a volume at which humans can hear the calls up to 500 metres from the source),
- (d) 1 minute of listening,
- (e) 30 seconds of duet calls of barking owls (male and female) played at loud volume (being a volume at which humans can hear the calls up to 2 kilometres from the source),
- (f) 1 minute of listening,
- (g) 30 seconds of duet calls of barking owls played at loud volume (being a volume at which humans can hear the calls up to 2 kilometres from the source).

If a barking owl is heard at any stage during the call-playback procedure described above, the next steps in the procedure are not to be taken (so as to minimise disturbance to owls).

(A reference in this clause to a volume at which humans can hear the calls at a specified distance from the source is a reference to a volume at which humans with normal hearing can hear the calls at that distance from the source, but cannot readily hear it at any greater distance.

A reference in this clause to a period of time for listening is a reference to a minimum period of time for listening.)

10. Report of survey

A report must be prepared in relation to the conduct and results of each survey of a State forest for the barking owl under this Schedule. The report must include the location of any barking owl nest or roost found during the survey (by giving its grid co-ordinates).

SCHEDULE 8 – IDENTIFICATION GUIDELINES FOR EECs

(Clauses 260, 261)

Part 1 – Box Gum Woodland EEC

Identification key for Part 1 Box Gum Woodland			
1	a	The site is in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands or NSW South Western Slopes bioregions	Go to 2
	b	The site is not in the above bioregions	The site is not Part 1 Box Gum Woodland EEC
2	a	Trees of one, or a combination of, the species <i>Eucalyptus albens</i> (White Box), <i>Eucalyptus melliodora</i> (Yellow Box) and <i>Eucalyptus blakelyi</i> (Blakely's Red Gum) comprise more than 50% of the canopy cover (that is, vertical projected cover of foliage and live branches of the tree stratum (being all trees with a dbhob of at least 200 mm)	Go to 3
	b	Trees of one, or a combination of, the species <i>Eucalyptus albens</i> , <i>Eucalyptus melliodora</i> and <i>Eucalyptus blakelyi</i> do not comprise more than 50% of the canopy cover (that is, vertical projected cover of foliage and live branches of the tree stratum (being all trees with a dbhob of at least 200 mm)	The site is not Part 1 Box Gum Woodland EEC
3	a	There is evidence of previous logging or clearing.	Go to 4
	b	There is no evidence of previous logging or clearing.	The site is Part 1 Box Gum Woodland EEC
4	a	There are more than 20 stems per hectare of <i>Callitris glaucophylla</i> with a dbhob of at least 200 mm	The site is not Part 1 Box Gum Woodland EEC
	b	There are less than 20 stems per hectare of <i>Callitris glaucophylla</i> with a dbhob of at least 200 mm	The site is Part 1 Box Gum Woodland EEC

Note: A site that is a Part 1 Box Gum Woodland EEC according to the above identification key also has to satisfy the criteria for a Part 2 Box Gum Woodland EEC set out below to be a species protection zone for Part 1 Box Gum Woodland EEC.

Part 2 – Box Gum Woodland EEC

Identification key for Part 2 Box Gum Woodland			
1	a	The site is in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands or NSW South Western Slopes bioregions	Go to 2
	b	The site is not in the above bioregions	The site is not Part 2 Box Gum Woodland EEC
2	a	The site has trees	Go to 3
	b	The site is treeless, but White Box, Yellow Box or Blakely's Red Gum trees, or a combination of these species, are believed to have been dominant or co-dominant	Go to 5
c	The site is treeless, and White Box, Yellow Box or Blakely's Red Gum trees, or a combination of these species, are not believed to have been dominant or co-dominant	The site is not Part 2 Box Gum Woodland EEC	

3	a	White Box, Yellow Box or Blakely's Red Gum trees, or a combination of these species, are, or are believed to have been, dominant or co-dominant	Go to 4
	b	White Box, Yellow Box or Blakely's Red Gum trees, or a combination of these species, are not, and are believed never to have been, dominant or co-dominant	The site is not Part 2 Box Gum Woodland EEC
4	a	The trees are in an unthinned or a thinned state (but are not isolated paddock-trees)	Go to 6
	b	The trees are isolated paddock-trees	Go to 8
5	a	The understorey is predominantly grassy (either native or exotic)	Go to 7
	b	The understorey is predominantly bare ground with or without natural litter (bark, leaves, twigs etc.)	Go to 8
	c	The understorey is predominantly shrubby	Go to 9
6	a	The understorey is predominantly grassy (either native or exotic)	The site is Part 2 Box Gum Woodland EEC
	b	The understorey is predominantly bare ground with or without natural litter (bark, leaves, twigs etc.)	The site is Part 2 Box Gum Woodland EEC
	c	The understorey is predominantly shrubby	Go to 9
7	a	Greater than 50% of the grassy ground layer cover is comprised of native species	The site is Part 2 Box Gum Woodland EEC
	b	Less than 50% of the grassy ground layer cover is comprised of native species	Go to 8
8	a	The site is likely to respond to assisted natural regeneration	The site is Part 2 Box Gum Woodland EEC
	b	The site is not likely to respond to assisted natural regeneration	The site is not Part 2 Box Gum Woodland EEC
9	a	The site is dominated by pioneer coloniser shrub species, such as <i>Acacia</i> spp. or <i>Cassinia</i> spp.	The site is Part 2 Box Gum Woodland EEC
	b	The site is dominated by shrubs other than the pioneer coloniser shrub species (<i>Acacia</i> spp. or <i>Cassinia</i> spp.)	The site is not Part 2 Box Gum Woodland EEC

Interpretation of key:

In the key:

“**assisted natural regeneration**” means the regeneration of native grasses, shrubs or trees (resulting in an improvement in the condition of the ecological community) encouraged by modification of land management practices;

“**ground layer**” means the lower-most layer of the vegetation community which includes grasses, herbs, forbs and sub-shrubs (that is, shrubs <50 cm high); and

“**understorey**” means bare ground, natural litter and vegetation other than trees.

For the purpose of applying the key:

- (a) White Box, Yellow Box and Blakely's Red Gum trees, or a combination of these species, are to be treated as dominant if trees of one of these species, or trees of two or all of these species (when considered together), are the most abundant trees in the relevant area, and
- (b) White Box, Yellow Box and Blakely's Red Gum trees, or a combination of these species, are to be treated as co-dominant if trees of one of these species, or trees of two or all of these species (when considered together), are as abundant as trees of other species in the relevant area and no other species of tree is more abundant in the area.

Part 3 – Inland Grey Box Woodland EEC

Identification key for Inland Grey Box Woodland EEC			
1	a	The site is in the Riverina, South Western slopes, Cobar Peneplain, Nandewar or Brigalow Belt South Bioregion	Go to 2
	b	The site is not in the Riverina, South Western slopes, Cobar Peneplain, Nandewar or Brigalow Belt South Bioregion	The site is not Inland Grey Box Woodland EEC
2	a	Trees of <i>Eucalyptus microcarpa</i> comprise more than 50% of the canopy cover (that is, vertical projected cover of foliage and live branches) of all canopy species and potential canopy species on the site	Go to 3
	b	Trees of <i>Eucalyptus microcarpa</i> do not comprise more than 50% of the canopy cover (that is, vertical projected cover of foliage and live branches) of all canopy species and potential canopy species on the site	The site is not Inland Grey Box Woodland EEC
3	a	Stems and stumps of <i>Eucalyptus microcarpa</i> comprise more than 50% of the total basal area of all stems and stumps more than 100 mm in diameter on the site	The site is Inland Grey Box Woodland EEC
	b	Stems and stumps of <i>Eucalyptus microcarpa</i> do not comprise more than 50% of the total basal area of all stems and stumps more than 100 mm in diameter on the site	The site is not Inland Grey Box Woodland EEC

Interpretation of key:

In the key:

“**canopy species**” means *Eucalyptus* spp., *Corymbia* spp., *Angophora* spp., *Callitris* spp., *Allocasuarina luehmannii*, *Casuarina* spp. and *Brachychiton populneus*; and

“**potential canopy species**”, in relation to a site, means trees on the site of a canopy species that are seedlings or regrowth.

SCHEDULE 9 – PLANNING CONSIDERATIONS FOR THE PURPOSES OF EPL AND FML

(Clause 298)

ENVIRONMENTAL FEATURES	
A1.	nature and characteristics of soil regolith in any area in which it is proposed to construct, re-open or up-grade a road or bush track and that has a ground slope greater than 10°;
B1.	form, extent and location of historical or existing erosion (including gully erosion and sheet and rill erosion) across the landscape (including on roads);
C1.	condition of existing vegetation and ground cover, including: <ul style="list-style-type: none"> - forest litter, - existing logging slash, - effect of seasonal conditions, and - impacts of recent fires;
D1.	rainfall characteristics, including annual average rainfall, monthly average rainfall and predicted rainfall.
OPERATIONAL SYSTEMS	
E. For each new road, bush track or fire trail to be constructed (including major realignment work) greater than 40 metres in length	
E1.	length of new road/track/trail to be constructed;
E2.	sites where the slope of land to be used for construction exceeds 30°;
E3.	sites where road/track/trail grade will exceed 10°;
E4.	type of road/track/trail drainage structures to be installed (identify up to 3 indicative types);
E5.	type of sediment trapping or soil erosion and sediment control structure to be used during construction;
E6.	type of drop-down structures and dissipators to be used over fill batters;
E7.	site-specific details for the disposal of dispersible spoil material from road construction;
E8.	site-specific soil stabilisation techniques of disturbed areas;
E9.	site-specific soil erosion and sediment control techniques.
F. For each existing road to be used	
F1.	total length of all existing roads to be used in logging operation;
F2.	length of any existing road requiring maintenance works (ie. reshaping/reforming) prior to commencement of logging operation;
F3.	description of road maintenance required;
F4.	maximum width proposed for clearing on either side of the road prism;
F5.	compliance with spacing requirements by existing road drainage structures;
F6.	type of road drainage structures to be installed (up to 3 indicative types);
F7.	condition of existing cut and fill batters and site-specific stabilisation techniques to be applied to unstable existing cut and fill batters;
F8.	condition of existing drop-down structures;
F9.	site-specific details on roads to be re-opened such as: <ul style="list-style-type: none"> - length of road re-alignment, - lowering of road grade, and - placement/disposal of spoil material;
F10.	site-specific soil erosion and sediment control techniques.
G For each new drainage feature crossing to be constructed for roads, bush tracks,	

extraction tracks or fire trails	
G1.	type of drainage feature crossing to be constructed;
G2.	site-specific techniques to be used to prevent the deposition of spoil material into the drainage feature during construction (including sediment control structures);
G3.	road reforming to be undertaken on the crossing approaches;
G4.	type of road drainage, bush track drainage and extraction track drainage to be installed within 40 metres of the drainage feature;
G5.	outlet control of the drainage structures nearest to the crossing;
G6.	reshaping of the bed and banks that will be required;
G7.	site-specific techniques to dispose of excess spoil material;
G8.	site-specific soil erosion and sediment control techniques.
New culvert construction	
G9.	site-specific techniques to be used to stabilise fill material around inlets and outlets of pipes;
G10.	site-specific techniques to be used to prevent pavement or surface material from entering the drainage feature.
New bridge construction	
G11.	soil stabilisation measures to be used to protect the banks from table drain discharge;
G12.	structures to be used to prevent material used for pavement of bridge from entering the drainage feature.
New causeway construction	
G13.	site-specific techniques to be used to minimise disturbance to the bed and banks of the drainage feature;
G14.	type of causeway pavement material proposed.
H For each existing drainage feature crossing	
H1.	type of existing drainage feature crossing proposed for maintenance, upgrading or replacement;
H2.	road reforming to be undertaken on the crossing approaches;
H3.	type of road drainage, bush track drainage and extraction track drainage within 40 metres of the drainage feature;
H4.	outlet control of the drainage structures nearest to the crossing;
H5.	stability of existing pavement on the drainage feature crossing or type of pavement to be used on the drainage feature crossing if the crossing pavement requires maintenance;
H6.	reshaping of the bed and banks that will be required;
H7.	any additional site-specific soil erosion and sediment control techniques for drainage feature crossing;
H8.	site-specific techniques to dispose of excess spoil material.
Existing culvert crossings	
H9.	site-specific techniques to be used to prevent spoil entering the drainage feature when replacing or removing culverts;
H10.	site-specific techniques to be used to stabilise fill material around inlets and outlets of pipes;
H11.	site-specific techniques to be used to stabilise outlet discharge areas;
H12.	site-specific techniques to be used to prevent pavement or surface material from entering the drainage feature.
Existing bridge crossings	
H13.	site-specific techniques to be used to stabilise the bed and banks from table drain discharge;
H14.	site-specific techniques to be used to prevent road pavement material from entering the drainage feature.
Existing causeway crossings	

H15.	site-specific techniques to be used to protect the bed and banks of the drainage feature;
H16.	type and stability of running surface on causeway crossings.
I	Borrow pits and gravel pits active or used for the operation
II.	site-specific techniques to ensure that runoff does not discharge from borrow pits or gravel pits into drainage features.
J	Harvesting factors (Items must be assessed for harvest planning)
J1.	gross area of the relevant compartment or other tract of land;
J2.	net mapped operation area of the compartment or other tract of land;
J3.	extraction method (eg wheeled skidder, forwarder, etc).

SCHEDULE 10 –SOIL DISPERSIBILITY ASSESSMENT REQUIREMENTS

(Clauses 299, 342)

Introductory note: *The lack of stability of the fine earth component of a soil aggregate when subjected to mechanical disturbance or wetting (or both) has the potential for significant on-site impacts (such as surface crusting) and off-site impacts (such as water quality). The interaction with water of the clay sized particles can largely determine the structural stability of the soil. When an unstable soil becomes wet, the fine particles react as individuals and are readily eroded from the profile. Because of their fine nature, once they are entrained, they tend to remain in suspension and this can cause serious turbidity problems in waterways for considerable periods of time.*

1. Definitions

In this Schedule:

“aggregate” means a unit of soil consisting of primary soil particles held together by cohesive forces or by secondary soil materials such as iron oxides, silica and organic matter;

“air-dry aggregate” means the degree of dryness of a soil aggregate at equilibrium with the water content of the surrounding atmosphere;

Note: The actual water content of a soil aggregate will depend on the relative humidity and temperature of the surrounding atmosphere.

“complete dispersion”, in relation to a soil aggregate, means the total breakdown of the soil aggregate into its constituent particles (that is, clay, silt and sand);

“dispersion” means the process whereby soil aggregates break down and separate into their constituent particles in water due to deflocculation;

“highly erodible soil” means a soil that scores a dispersibility rating of 2, 3 or 4 when aggregates of that soil are tested in accordance with this Schedule;

“relevant area” means any part of a road, track or trail (or proposed road, track or trail) within 20 metres of a drainage feature or wetland or any area within 20 metres of a crossing or proposed crossing of a drainage feature or wetland along the route of the road, track or trail (or proposed road, track or trail);

“slaking” means the partial breakdown of a soil aggregate in water due to the swelling of clay and the expulsion of air from pore spaces;

“slight dispersion”, in relation to a soil aggregate, means the partial breakdown of the soil aggregate in water, with less than 50 % of the aggregate dispersed; and

“strong dispersion”, in relation to a soil aggregate, means the partial breakdown of the soil aggregate in water, with more than 50% (but less than 100%) of the aggregate dispersed.

2. Detection of highly erodible soils

- (1) The approved soil assessor must determine whether highly erodible soil is present in the relevant area by:

- (a) carrying out such field investigations and inspections as he or she considers necessary, and
 - (b) carrying out the soil testing procedure described in clause 3 of this Schedule in relation to soil aggregates from each layer of soil that will be disturbed by the proposed works at sites within the relevant area.
- (2) In determining what field investigations and inspections to carry out, the approved soil assessor is to err on the side of carrying out more than necessary in order to ensure that the relevant area is properly sampled.
- (3) The approved soil assessor is to ensure that the sites selected for the soil testing procedure described in clause 3 represent the range of soil types in the relevant area.

3. Soil testing procedure

For the purpose of clause 2 (1) (b) of this Schedule, the soil testing procedure is as follows:

- (a) Select three air-dry aggregates from each layer of the soil (that is, each layer that will be disturbed by the proposed works) at the site selected for testing,
- (b) Place approximately 75 millimetres of deionised water in a clean, wide-bottomed container,
- (c) Place three air-dry aggregates taken from the same layer of soil in the container of deionised water, spaced evenly around the sides of the container. Ensure that the deionised water completely covers all the aggregates and do not stir the contents of the container or otherwise disturb the contents,
- (d) Observe and record the extent to which each aggregate has dispersed or slaked (or both) first, after 10 minutes, and secondly, after 2 hours, from when they were placed in the water,
- (e) Repeat the steps described in paragraphs (b) to (d) for each layer of soil from which three air-dry aggregates were taken.

Despite paragraph (d), the approved soil assessor may, in relation to the testing of the air-dry aggregates from a particular layer of soil, stop observing the behaviour of the aggregates after 10 minutes if satisfied that all 3 aggregates show strong or complete dispersion within that time.

4. Dispersibility rating

The approved soil assessor is to give a dispersibility rating to each air-dry aggregate the behaviour of which was observed and recorded under clause 3 of this Schedule as follows:

- Score 0: for no dispersion within 2 hours,
- Score 1: for slight dispersion within 2 hours,
- Score 2: for slight dispersion within 10 minutes and strong dispersion within 2 hours,
- Score 3: for strong dispersion within 10 minutes and strong dispersion within 2 hours,
- Score 4: for complete dispersion within 10 minutes.

5. Dispersibility rating for soil overall

If the three air-dry aggregates taken from a particular layer of soil and tested in accordance with clause 3 score different dispersibility ratings, then the highest rating is taken to be the dispersibility rating of the soil from that layer.

Note: "Highly erodible soil" is a soil that has a dispersibility rating of 2, 3 or 4 (see definition in clause 1 of this Schedule). If highly erodible soil is present within 20 metres of a crossing or proposed crossing

of a drainage feature (or wetland) and works relating to the crossing are being undertaken, then a stable, non-dispersible material must be placed along the surface of the road or track for at least 20 metres from the crossing under clause 342.

6. Recording assessment in field and testing procedure

The approved soil assessor must record in writing what field investigations or inspections he or she has made for the purposes of clause 2 (1) (a) of this Schedule and his or her observations for the purposes of clause 3 (d). He or she must also record in writing the dispersibility ratings given to each air-dry aggregate tested.