

Integrated Forestry Operations Approval for South-Western Cypress Region

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 the Environment

Dated: 16th June, 2011



Minister for Primary Industries

Dated: 24th June, 2011

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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) The paragraph numbering in this approval matches the paragraph numbering in the Brigalow-Nandewar Integrated Forestry Operations Approval. The text within each paragraph, however, may differ between this approval and the Brigalow-Nandewar IFOA. Where "Not Used" appears in a heading in this approval that means that the matching paragraph in the Brigalow–Nandewar IFOA was not applicable to this approval.
- (2) 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.
- (3) In this approval:

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

"South-Western Cypress 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 but includes thinning and early thinning operations;

"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 but does not include thinning or early thinning operations.

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 on 1 July 2011 and 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 South-Western area as shown on the map at the end of section 3 of the National Park Estate (South -Western Cypress Reservations) Act 2010, including any land which becomes Crown-timber land during the term of this approval.
- (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.

5. Description of forestry operations to which approval applies

- (1) This approval applies to the forestry operations in the South-Western Cypress Region described in this clause.

Logging operations

- (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 328,895 m³ of logs (that is, (22,390 m³ x 14.5) + 4,240 m³) over the 14.5 year period commencing 1 July 2011, and no more than 31,346 m³ of logs (that is, 22,390 m³ + (40% x 22,390 m³)) in any one financial year,

Note: The figure of 22,390 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 4,240 m³ represents the estimated quantity of undercut wood as at the date of signing this approval.

- (b) logging operations for the purpose of producing timber products other than logs and residue timber, (such as craftwood and vineposts), from white cypress trees, but no more than 1, 500 m³ of such timber products in anyone financial year, and
 - (c) logging operations for the purpose of producing up to 6,000 tonnes of residue timber in any one financial year from early thinning white cypress or bull oak trees (being trees of the species *Allocasuarina luehmannii*) carried out in accordance with clause 32G.
- (3) This approval also applies to:
- (a) logging operations solely for the purpose of thinning white cypress trees in accordance with clause 32F, where the timber is not removed from the land; and
 - (b) logging operations solely for the purpose of thinning or early thinning white cypress and bull oak trees in accordance with clause 32F or 32G, where the timber is not removed from the land.

Firewood operations

- (4) This approval applies to forestry operations authorised under section 30I of the *Forestry Act 1916* for the purpose of producing firewood.
- (5) However, this approval does not apply to forestry operations for the purposes of producing firewood if those operations are carried out in an area to which the Integrated Forestry Operations Approval for Riverina River Red Gum applies.

Forest product operations

- (6) This approval applies to forest products operations authorised under section 30I of the *Forestry Act 1916* namely, the harvesting of products of trees, shrubs and other vegetation (other than timber) that are of economic value, but it does not apply to the harvesting of products of broombush (*Melaleuca uncinata*).

On-going forest management operations

- (7) This approval applies to on-going forest management operations, namely, the following activities relating to the management of land for timber production:
 - (a) bush fire hazard reduction,
 - (b) grazing,
 - (c) bee-keeping,
 - (d) weed, pest and disease control,
 - (e) other silvicultural activities, including activities to manipulate or affect forest stand structure or composition by, for example, the use of fire.

Ancillary road construction

- (8) 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*.

More than one type of operation can be a logging operation

- (9) 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, residue or other timber product (or any combination of these) that Forests NSW predicts will be produced in the operation.

Crown- timber lands

- (10) 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.

Clearing for timber plantations and other uses

- (11) 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.

- (12) 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.
- (13) 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 (as described in the final determination of the Scientific Committee to list the ecological community), or

- (v) the endangered ecological community of Sandhill Pine Woodland in the Boona, Bretts and Ugobit State forests 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 (as described in the final determination of the Scientific Committee to list the ecological community), or
 - (v) the endangered ecological community of Sandhill Pine Woodland in the Boona, Bretts and Ugobit State forests (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 this subclause.
- (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 South-Western Cypress 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; and
 - (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 South-Western Cypress Region.

Note: The terms of the environment protection licence are Licence No. 13419. for the purposes of OEH'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;

"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]);

"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;

"DPI (Fisheries)" means that group of staff within the Department of Primary Industries principally involved in the administration of Part 7A of the Fisheries Management Act 1994;

Note: The Fisheries Ecosystems Branch of the Department of Primary Industries 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;

"early thinning" is the method for selecting trees to be cut as described in clause 32G;

"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;

"environmentally significant area for Part 2 Inland Grey Box Woodland EEC" means an environmentally significant area described in clause 261;

"environmentally significant area for Sandhill Pine Woodland EEC" means an environmentally significant area described in clause 261A;

"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 Corporate Enterprise Geodatabase and its associated metadata that indicates 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);

"habitat for hollow dependent threatened species" means a tree described in clause 170(1)(b2);

"harvesting machine" means any mechanical or other harvester, rubber-tired 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;

"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]);

"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);

"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) that 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;

"OEH" means the Office of Environment and Heritage, 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;

"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;

"Painted honey eater habitat" means a patch of trees described in clause 246A;

"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 South western cypress Region or part of the Region;

"pollution" has the same meaning as in the Protection of the Environment Operations Act 1997;

"release" means the silviculture practice described in clause 32E

"residue timber " means timber produced in a logging operation that does not meet minimum size and quality specifications for logs (14 cms dbhob) or for other timber products, such as craftwood and vine posts;

"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;

"Sandhill Pine Woodland EEC" means the endangered ecological community of Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes Bioregions (as described in the final determination of the Scientific Committee to list the

ecological community) under the Threatened Species Conservation Act 1995 ; Government Gazette of 28 March 2008, p.2498-2504;

"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 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 (bird nests and roost sites),
- (a1) clause 246A (Painted honey eater *Grantiella picta*)
- (a2) clause 246 B (White browed treecreeper *Climacteris affinis* - endangered population)
- (b) clause 249 (Flying-fox camps),
- (c) clause 252 (Spotted-tailed quoll *Dasyurus maculatus*),
- (d) clause 258 (plants),
- (e) clause 260 (Part 1 Box Gum Woodland EEC),
- (f) clause 261 (Part 1 Inland Grey Box Woodland EEC),
- (g) clause 261A (Sandhill Pine Woodland EEC).

"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.

"thinning" is the method of selecting trees to be cut for the purpose of promoting the growth of other trees that have the potential to yield timber as described in clause 32F;

"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;

"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 brow treecreeper habitat" means a patch of trees described in clause 246B;

"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 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
- (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 South-Western Cypress 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 OEH, 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 South-Western Cypress 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 OEH 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 DPI (Fisheries) may be satisfied by forwarding or giving the document or other thing to a senior officer of DPI (Fisheries), such as the Director, Fisheries Conservation and Aquaculture Branch, Department of Primary Industries.

- (2) A requirement of this approval to forward or give a document or other thing to OEH may be satisfied by forwarding or giving the document or other thing to a senior officer of OEH 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 OEH (however expressed), OEH is taken to have given such an approval or authorisation if the Chief Executive (CE) of the Office of Environment and Heritage, or a member of staff nominated by the CE for the purpose, has given the approval or authorisation.
- (4) A reference in this clause to a senior officer of DPI (Fisheries) or OEH includes a reference to any member of staff nominated by the Director-General of the Department of Primary Industries or the Chief Executive of the Office of Environment and Heritage (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 OEH given to it in electronic form for the purposes of any provision that prohibits the doing of any thing without OEH'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

- (1) This clause applies to State forest reserved as national park or nature reserve on 1 January 2012 under Schedule 2 of the National Park Estate (South-Western Cypress Reservations) Act 2010.

Note: This land will become Carrabear Nature Reserve, South West Woodland Nature Reserve, Lachlan Valley National Park and Yathong Nature Reserve.

- (2) Forestry operations may be carried out on that land until 1 January 2012 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", and the Schedule 8 EEC guidelines under this approval as current at the time of commencement of this approval, are also given effect to in carrying out the operation.
- (3) The "continued licences" are those licences granted to Forests NSW (Forestry Commission) under Part 6 of the Threatened Species Conservation Act 1995 in relation to the South- Western Cypress (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.

22. Not used

23. Not used

24. Not used

25. Forestry operations already commenced not affected by approval

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 30I, 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 OEHL 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.
- (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 OEHL.
- (3) The requirements of this clause continue to apply until one of the following occurs:
 - a) 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),
 - b) 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
- (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 Chief Executive of the Office of Environment and Heritage 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) 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.
- (6) 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 South-Western Cypress 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 Premier and Cabinet 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 Premier and Cabinet 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 South-Western Cypress Region becomes critically endangered, Forests

NSW is, at the request of OEH, 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 OEH of its discovery of new evidence of plant and animal species

- (1) Forests NSW must notify OEH 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 South-Western Cypress Region, being evidence that:
 - (a) a species of plant or animal not previously known to be present in the South-Western Cypress Region is present in the Region, or
 - (b) the range of a species of plant or animal in the South-Western Cypress Region has significantly expanded in the Region, or
 - (c) a species of plant or animal that has not been recorded in the South-Western Cypress 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

32A. Limits on the area of logging operations and of firewood collection

- (1) The total area of any tract selected for logging in any operation must not exceed 80% of the net mapped operation area of the tract.
- (2) For the period of 5 years from the date of the logging operation, firewood must not be collected from the unlogged part of the tract.

32B. Intervals between logging operations

A logging operation must not be carried out on any part of a tract of land if a logging operation has been carried out on that part of the tract within the previous 5 years.

32C. Silviculture practices for white cypress and bull oak in Zone 4

- (1) In planning and carrying out logging operations for white cypress and bull oak in Zone 4 under the Forest Management Zoning System, Forests NSW must have regard to the guidelines entitled "Silviculture Guidelines for Harvesting in the South – Western Cypress Area – White Cypress and Bull Oak" prepared by Forests NSW and dated 2011.
- (2) White cypress trees must be selected for harvesting using one of the following silviculture practices:

- (a) release, in accordance with clause 32E; or
 - (b) thinning, in accordance with clause 32F; or
 - (c) early thinning, in accordance with clause 32G.
- (3) Bull oak trees must be selected for harvesting using early thinning in accordance with 32G.
- (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 Silviculture Guidelines referred to in subclause (1) do not apply to such an operation.)

32D. Silviculture practices for white cypress and bull oak in Zone 3B

- (1) Clause 32C applies to the planning and carrying out of logging operations for white cypress and bull oak in Zone 3B under the Forest Management Zoning System, in the same way as it applies to logging operations in Zone 4, unless:
- (a) Forests NSW has requested OEH to approve a different silviculture practice for any logging operations in Zone 3B on environmental grounds; and
 - (b) OEH has approved that practice.
- (2) OEH will be taken to have approved the practice if Forests NSW has not received an approval, refusal or written request for more information, 30 days after making the request for approval.
- (3) Where a different silviculture practice has been approved (or taken to be approved) under this clause for logging operations, Forests NSW must comply with that practice when planning and carrying out those operations.

32E. Release – White Cypress

- (1) For the purposes of this Approval, the silviculture practice of release is where white cypress mature logs and other timber products are produced from a stand of trees that has adequate white cypress regeneration.
- (2) A stand of trees has adequate white cypress regeneration if there are at least 1500 trees with good form, that are at least 1.5 metres tall, per hectare of the stand (within the net mapped operational area).

Note: Part 3.4 also contains conditions relating to trees that must be retained.

32F. Thinning – White Cypress

- (1) For the purposes of this Approval, the silviculture practice of thinning is where logs and other timber products are produced from a stand of trees that does not have adequate white cypress regeneration within the meaning of clause 32E.
- (2) Forests NSW is to ensure that at the completion of thinning operations, the average basal area of white cypress trees remaining in the stand of trees (within the net mapped operational area) is 6m² per hectare of the stand or more.

Note: Part 3.4 also contains conditions relating to trees that must be retained.

- (3) The basal area of trees that must not be felled under, or are retained for the purposes of, Part 3.4 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.

32G. Early thinning – white cypress and bull oak

- (1) For the purposes of this Approval, the silviculture practice of early thinning is where white cypress or bull oak trees with a dbhob of less than 14 centimetres are felled from a stand of those trees comprising more than 1500 trees with a dbhob of 14 centimetres or less per hectare.
- (2) Forests NSW is to ensure that at the completion of early thinning operations, there are at least 280 healthy larger trees of good form per hectare of the stand (within the net mapped operational area). Priority must be given to retaining white cypress trees.

Note: Part 3.4 also contains conditions relating to trees that must be retained.

33. Not used

34. Not used

35. Categorisation of timber

- (1) Forests NSW must ensure, in connection with the sale or other disposal of timber by it from the South-Western Cypress 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 insul timber prohibited

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.

37. Not used

38. Not used

39. Not used

40. Not used

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 South-Western Cypress 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 South-Western Cypress 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 OEH and considered any written comments OEH 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 OEH (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 South–Western Cypress 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 South-Western Cypress 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 2015.
- (3) Before carrying out the first assessment, Forests NSW must consult OEH 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress Region.
- (6) The document entitled "Pest Animal Management Plan 2006 Western Region NFOB", as prepared by Forests NSW in April 2006, as amended and approved by the Director Native Forest Operations of Forests NSW 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 South-Western Cypress 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 South-Western Cypress 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 2016.

- (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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress Region.
- (6) The document entitled "Weed Management Plan 2006 Western Region NFOB", as prepared by Forests NSW in April 2006 and as amended and 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 South-Western Cypress Region.

49. Weed management plan – review and amendment

- (1) Forests NSW must review the weed management plan applying to State forests within the South-Western Cypress 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 2016.
- (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 South-Western Cypress 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.

50A. Grazing prohibition

Grazing by domestic livestock must be removed from a forest if:

- (a) the forest is 200 hectares or less and the dry biomass has fallen to below 1200 kg per hectare; and
- (b) the forest is more than 200 hectares and the dry biomass has fallen to below 1200 kg per hectare in more than 80 percent of the forest.

51. Grazing management plan for South-Western Cypress 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 and clause 50A for the regulation of grazing by domestic stock within State forests in the South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress Region.
- (6) The document entitled "Grazing Management Plan 2006 Western Region NFOB", as prepared by Forests NSW in April 2006 and as amended and 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.

52. Grazing management plan – review and amendment

- (1) Forests NSW must review its grazing management plan applying to State forests within the South-Western Cypress 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 2016.

- (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 South-Western Cypress Region

- (1) Forests NSW must prepare a plan or plans for the regulation of burning operations within State forests in the South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 OEH and DPI (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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress Region.
 - (7) The document entitled "Road Management Plan 2006 Western Region NFOB", as prepared by Forests NSW in April 2006 and as amended and 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 South-Western Cypress 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 2016.
- (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
Note: this includes thinning and early thinning operations
 - (b) a forest products operation,
 - (c) weed control,
 - (d) pest animal control,
 - (e) a burning operation,
 - (f) 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 South-Western Cypress 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 OEH and DPI (Fisheries) before the commencement of that financial year.

- (4) The first annual program is required to be prepared for the financial year commencing 1 July 2011.
- (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 the intended yield of timber products (if timber products are to be produced) 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) Forests NSW must ensure that a copy of any authorisation or approval by a Regional Manager of Forests NSW or by OEH 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.
- (6) 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 kinds and intended yield of timber products (for example, sawlogs, vineposts, or timber residue) expected to be produced by the operation (if timber products are expected to be produced).

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 OEH AND DPI (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,
Note: this includes thinning and early thinning operations

- (b) a burning operation,
- (c) 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 OEH and DPI (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 products that Forests NSW intends to yield from the operation (if timber products are to be produced). It may be specified as an estimate 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) the total number of 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; and
 - (b) the presence or expected presence of EEC's within the relevant compartment or other tract of land.
- (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 OEH and DPI (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 OEH and DPI (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 OEH and DPI (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 OEH and DPI (Fisheries) at any time, including by adding a proposed forestry operation to it. Forests NSW is to give OEH and DPI (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 OEH and DPI (Fisheries) are incorrect, it must give an amended advice to OEH and DPI (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 OEH and DPI (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 OEH and DPI (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 South-Western Cypress 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 South-Western Cypress 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 OEH and DPI (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 OEH and DPI (Fisheries) with a report on forestry operations undertaken in the South-Western Cypress 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 in relation to the financial year commencing 1 July 2011.
- (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, and timber 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 report on:

- (a) the quantity of timber yielded from any thinning or early thinning operations if the timber is not sold; and
- (b) 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).

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 South-Western Cypress Region for firewood:

- (a) the number of authorisations issued by Forests NSW under section 30I of the *Forestry Act 1916* for the collection of firewood in the year,
- (b) 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,
- (c) the quantity of firewood authorised to be collected under section 30I of the *Forestry Act 1916*.

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 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 South-Western Cypress 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. Not used

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 South-Western Cypress 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 OEH and DPI (Fisheries)

The annual report under this Division for a financial year is to be provided to OEH and DPI (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 South-Western Cypress 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 South-Western Cypress Region (and listed in a monthly advice forwarded to OEH and DPI (Fisheries)), copies of the following:
 - (a) any approval given by OEH 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 South-Western Cypress 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 OEH or DPI (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 OEH or DPI (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 South-Western Cypress Region.
- (3) Forests NSW or other person must give OEH or DPI (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 OEH or DPI (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 OEH or DPI (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 OEH officers to collect information

Forests NSW must assist OEH to collect information with respect to compliance with this approval. In particular, access to any part of the South Western Cypress Region is to be given to OEH officers.

Note: OEH 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 OEH (and DPI (Fisheries)) in any assessment or review of this approval that the Minister for the Environment or OEH 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 OEH 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 South-Western Cypress 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 South-Western Cypress 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 South-Western Cypress Area – White Cypress and Bull Oak" (Forests NSW, May 2011,
- (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 Chief Executive of the Office of Environment and Heritage,
 - (l) 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 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.
- (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 OEH 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).

PART 1.6 - MISCELLANEOUS

Division 1 - Protection of cultural heritage

Note: For the purposes of this approval, the protection of cultural heritage, including Aboriginal cultural heritage, is to be in accordance with the National Parks and Wildlife Act 1974 and associated Regulations ; and with the Operational Guidelines for Aboriginal Cultural Heritage Management published by Forests NSW on 13 September 2010, as in effect from time to time.

97. Not used

98. Not used

99. Not used

100. Not used

101. Not used

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 OEH 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 includes thinning and early thinning operations. 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) This Part does not restrict:
 - (a) the felling of trees for pest, weed or disease control, in accordance with an approval of OEH under clause 121.
 - (b) the management of dense cypress re-growth, in accordance with an approval of OEH 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 OEH.
- (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 OEH 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 OEH 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 OEH 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 prohibited

An operation to harvest branches or stems of trees for didgeridoos or other products 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 from a drainage protection area.
- (2) 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 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.

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

- (1) Despite clause 120, trees may, with the approval in writing of OEH, 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 non cypress species 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 OEH 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 OEH's approval. For example, pesticides, herbicides and insecticides may be applied in the drainage protection area without OEH's approval.

122. Management of dense cypress re-growth

- (1) Despite clause 120, silviculture activities (including the use of fire) may, with the approval in writing of OEH, be carried out in a dense stand of cypress regrowth within a drainage protection area.
- (2) Silvicultural activities under this clause may be carried out only in accordance with any conditions imposed by OEH 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 managing 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 OEH's approval in writing. Any such burning operation may be carried out only in accordance with any conditions imposed by OEH 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 OEH.
- (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 OEH 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 OEH 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 OEH 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.

"habitat of hollow dependant threatened species" means a tree described in clause 170(1) (b2),

"Painted honey eater habitat" means a patch of trees described in clause 246A,

"White browed tree creeper habitat" means a patch of trees described in clause 246B.

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 OEH) 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) OEH 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 OEH 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 OEH 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 OEH 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 OEH

- (1) Forests NSW must advise OEH of any record of a threatened species of animal or plant made or found in the South-Western Cypress 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 OEH details of the record within 5 working days if requested to do so by OEH.
- (4) Advice concerning new records is to be forwarded electronically to OEH, to an office and in a manner notified by OEH 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 OEH accordingly and advise OEH (in writing) of whether it proposes to implement the specified measure in the recovery plan.
- (2) If Forests NSW has given OEH 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 South-West Cypress 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) Brush-tailed phascogale *Phascogale tapoatafa*
 - (b) Kultarr Antechinomys *Antechinomys laniger*,
 - (c) *Lepidium aschersonii* a plant,
 - (d) *Lepidium monoplacoides* a plant,
 - (e) *Leptorhynchus orientalis* a plant,
 - (f) Pale-headed snake *Hoplocephalus bitorquatus*,
 - (g) Pied honeyeater *Certhionyx variegatus*,
 - (h) Powerful owl *Ninox strenua*,

- (i) *Rulingia procumbens* a plant,
- (j) *Sida rohlenae* a plant,
- (k) *Swainsona recta* a plant.

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

145. Forestry operation prohibited without OEH approval if records found

- (1) This clause applies to Forests NSW when it –
 - (a) compiles data relevant to a compartment or other tract of land under Division 2 of Part 3.2; or
 - (b) carries out a survey for a compartment or other tract of land under this Chapter.
- (2) If Forests NSW becomes aware of, finds or makes a record of a species to which this Division applies in the compartment or tract, or within 100 metres of the boundary of the compartment or tract, it must notify OEH of the record.
- (3) Unless OEH 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 OEH's written approval.
- (4) The forestry operation may be carried out only in accordance with any conditions to which OEH'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 of animal species 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 of animal to which this Division applies, or of the discovery or making of a new record of such a species:
 - (a) in that compartment or tract; or
 - (b) within 100 metres of the boundary of the compartment or tract. .
- (2) Forests NSW must notify OEH 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 OEH's written approval unless:
 - (a) OEH 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 OEH of the record and Forests NSW has not received written advice from OEH that OEH 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 OEH'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).

146A Forestry operation not suspended for records of plant species found

- (1) If Forests NSW becomes aware, during an operation, of a record of a plant species to which this Division applies, or of the discovery or making of a new record of such a species:
 - (a) In that compartment or tract; or
 - (b) Within 100 metres of the boundary of the compartment or tract
- (2) Forests NSW must notify OEH of the record within two working days of becoming aware of it.
- (3) If a plant species is found in accordance with this section, then a species protection zone in accordance with clause 258 must be applied immediately and forestry operations continue subject to the amended operational plan.

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 OEH 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 OEH 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 South-Western Cypress 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 South-Western Cypress 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.
- (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),
 - (f) date on which the supervising forestry officer or other senior officer records the information set out in the preceding paragraphs,
 - (g) 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).

148A. 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.

149. Species management plans for certain threatened plant species

- (1) 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) *Austrostipa metatoris*,
 - (b) *Austrostipa wakoolica*,
 - (c) *Diuris tricolor*,
 - (d) *Pterostylis cobarensis*,
 - (e) *Swainsona sericea*.
- (2) A species management plan prepared for one of these species in accordance with the requirements of the Brigalow-Nandewar Integrated Forestry Operations Approval for the Brigalow-Nandewar Region may be taken to have been prepared under this clause for that species in the South-Western Cypress Region, if it is also expressed to apply to forests in that Region.

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 South-Western Cypress 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 OEH) 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 Chief Executive of OEH before the end of the 12 month period following the commencement of this approval.

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

152. Not used

153. Not used

154. Not used

155. Strategic monitoring and assessment program

Forests NSW is to develop and undertake a strategic monitoring and assessment program in the South-Western Cypress 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 OEH 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. Not used

157. Not used

158. Not used

159. Not used

160. Protection of endangered ecological communities generally

- (1) This clause applies to endangered ecological communities other than:
 - (a) Box Gum Woodland EECs (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 EECs 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 under the Threatened Species Conservation Act 1995 [Government Gazette of 27 April 2007, p. 2453]).
- (c) Sandhill Pine Woodland EECs in Boona, Bretts and Ugobit state forests (as described in the final determination of the Scientific Committee under the Threatened Species Conservation Act 1995 [Government Gazette of 28 March 2008, p. 2509 – 2517]).
- (1A) Firewood must not be collected on land on which an endangered ecological community is present.
- (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 OEH (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 plant survey required under Division 4 for the compartment or other tract of land has been carried out, and
 - (d) 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 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 spotted-tailed quoll 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) 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, or targeted 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,
 - (b2) trees of any species that may be habitat for hollow dependent threatened species, namely:
 - (i) trees (living or dead) with evidence of use by a hollow dependent threatened species; or
 - (ii) trees (living or dead) with a dbhob of 81 centimetres or more.
 - (c) flying-fox camps (as described in clause 249 (2)),
 - (d) dens (whether permanent or maternal) and latrine sites of the spotted-tailed quoll,
 - (e) any individuals of a species of plant referred to in clause 149 or 258,
 - (f) evidence of Box Gum Woodland EEC, Inland Grey Box Woodland EEC or Sandhill Pine EEC,
 - (g) glider sap feed trees within the meaning of clause 203,
 - (h) trees containing raptor nests,
 - (i) evidence of Bush stone curlews,
 - (j) Painted honey eater habitat, as described in clause 246A,
 - (k) White browed treecreeper habitat, as described in clause 246B,
 - (l) nests (other than mud nests) of any species of bird that is protected fauna,
 - (m) evidence of species of concern within the meaning of clause 144;
 - (n) endangered ecological communities (in addition to Box Gum Woodland EEC, Sandhill Pine 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))

172. Not used

173. Not used

174. Not used

175. Not used

176. Not used

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 curranii	Yelkin, Cargelligo
Caladenia arenaria	Kentucky, Yarranjerry, Mejum, Buckingbong, Lonesome Pine
Acacia ausfeldii	Tuckland, Cope, Weddin

- (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.

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

Any person involved in carrying out a targeted survey for plants under this Division who sees or finds other evidence of any threatened species, is to ensure that details of the observation or other evidence, as described in Part 6 of Schedule 5 (as the case requires) is recorded, so that it can be incorporated in the report under clause 166 or 177 respectively.

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

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) each report of a targeted plant survey carried out for the compartment or other tract of land, prepared for the purpose of clause 177 (2),
 - (d) all data sheets used in the field for the purpose of a traverse survey under Division 3 and any targeted plant survey under Division 4,
 - (e) a map of the compartment or other tract of land indicating the location of records of threatened species, 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 clause 162 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, 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),
 - (a1) trees that are habitat for hollow dependent threatened species, as described in clause 170, (and the boundaries of the environmentally significant area around it under clause 244 (g1),
 - (b) any flying-fox camp (and the boundaries of any species protection zone surrounding it),
 - (c) glider sap feed trees within the meaning of clause 203,

- (d) trees containing raptor nests,
 - (e) any record of Bush stone curlews,
 - (f) any other environmentally significant areas.
- (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) 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, 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), 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,

- (a1) a patch of trees that are habitat for Painted honey eaters, as described in clause 246A,
 - (a2) trees that are habitat for White browed treecreepers, as described in clause 246B,
 - (a3) trees that are habitat for hollow dependent threatened species, as described in clause 170,
 - (b) flying-fox camps, as described in clause 249 (2),
 - (c) dens (whether permanent or maternal) and latrine sites of the spotted-tailed quoll,
 - (d) any individuals of a species of plant referred to in clause 149 or 258,
 - (e) evidence of Box Gum Woodland EEC, Inland Grey Box Woodland EEC or Sandhill Pine Woodland EEC,
 - (f) glider sap feed trees within the meaning of clause 203,
 - (g) trees containing raptor nests,
 - (h) nests (other than mud nests) of any species of bird that is protected fauna,
 - (i) evidence of species of concern within the meaning of clause 144,
 - (j) endangered ecological communities (in addition to Box Gum Woodland EEC, Inland Grey Box Woodland EEC and Sandhill Pine EEC).
- (2) The survey required by clause 184 must also include a thorough search for the following in the case of a logging operation (to which Part 3.4 applies):
- (a) shrubs and trees of *Allocasuarina* spp or *Casuarina* spp. for evidence that glossy black-cockatoos have been feeding on them,
 - (b) stands of *Allocasuarina* or *Casuarina* spp.,
 - (c) stands of *Grevillea* spp. and stands of *Eremophila* spp. (other than *E. mitchelli*),
- (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) glider sap feed trees within the meaning of clause 203,
 - (b) trees containing raptor nests,
 - (c) bird nests (other than those referred to in clause 246),
 - (d) 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. Not used

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 or 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) any other on-going forest management operation that involves felling or destruction of trees (including a burning operation),
 - (c) 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 OEHL (or both) under Part 3.7:
- (a) weed, pest or disease control involving the felling of trees,
 - (b) a burning operation,
 - (c) 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 OEH (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 198, 200 or 216 across the whole compartment or other tract of land in which the relevant logging 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 remaining in a hectare surrounding a stump of a tree felled in an operation, for the purposes of clauses, 198 (3), 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 section 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 operations

197. Not used

198. Retention of large white cypress trees

- (1) Forests NSW must ensure that, at the completion of any logging 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. Not used

199A. Bull Oak in Riverina or Murray Darling Depression bioregion

Bull oak trees must not be felled in the Riverina or Murray Darling Depression bioregions.

200. Retention of bull oak

- (1) Forests NSW must ensure that, at the completion of any logging operation in which bull oak trees are felled, at least four 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.

- (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 four 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 four
- (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 two bull oak trees must remain, at the completion of the operation 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 one bull oak tree is 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. Not used

202. Not used

203. Glider sap feed trees must not be felled

- (1) Glider sap feed trees must not be felled in any logging 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, 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.

205. Koala trees must not be felled

A tree (whether living or dead) must not be felled in any logging operation or in the course of, or for the purposes of, road works, if there is an observation made during the course of the operation or works of a koala using the tree. The tree may be felled if an observation is made that the koala is no longer using the tree.

206. Not used

207. Retention of dead trees

- (1) This clause does not apply to a salvage logging operation following a wildfire carried out in accordance with Division 3.
- (2) A dead, dry standing tree (of whatever species) must not be felled in a logging operation.
- (3) In this clause, a reference to a dead, dry standing tree is a reference to a tree from which the majority of the bark has been separated from the sapwood.

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 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 216.

209. Protection of significant resources for certain threatened species and bird nests

- (1) Damage to the following types of trees or shrubs must be avoided or minimised to the greatest extent practicable during logging operations:
 - (a) all stands of *Allocasuarina* (other than bull oak) or *Casuarina* spp.,
 - (b) individual shrubs or trees of *Allocasuarina* 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,
 - (c) all stands of *Grevillea* spp. and all stands of *Eremophila* spp. (other than *E. mitchelli*, commonly known as "Budda"),
- (1A) If there is a record of a Bush stone curlew in a compartment -
 - (a) the compartment must not be logged during spring; and
 - (b) firewood must not be collected from the compartment at any time.
- (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 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 following wildfire – special tree retention and other requirements

211. General requirements

- (1) This Division applies to a salvage logging operation for the purpose of harvesting timber (having commercial value) in white cypress trees that have been killed or damaged by a wildfire.
- (2) Such a salvage logging operation must either comply with –
 - (a) Division 2 ;or
 - (b) this Division.
- (3) Salvage logging operations under this Division may be carried out –
 - (a) only during the 12 months following the wildfire; and
 - (b) only if the wildfire has devastated or damaged a single area of at least one hectare; and
 - (c) only with the approval of OEH if the operations are to be carried out in more than 75% of the mapped net operational area, or 2000 ha, whichever is the lesser.
- (4) If a regent honeyeater is observed feeding in a tree during the course of the salvage logging operation, it must not be felled in the operation.
- (5) If a koala is found in a tree during the operation, the koala’s tree, and trees within 20 metres of the koala’s tree, must not be felled.
- (6) A tree (whether living or dead) that contains a raptor nest must not be felled in the salvage logging operation.

- (7) Damage to trees or shrubs of the kind referred to in clause 209 (1) must be avoided or minimised even if they have been damaged or appear to be dead as a result of the wildfire.
- (8) Clause 210 (Protection of undisturbed patches of vegetation) applies, as provided by that clause, in relation to the salvage logging operation.

212. Not used

213. Not used

214. Not used

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

- (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).

216. Protection of other trees in salvage logging operations

- (1) Timber may not be harvested, in a salvage logging operation following a wildfire, from white cypress trees that have not been either killed or damaged by the wildfire.
- (3) Timber may not be harvested from species other than 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, 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.

217. Not used

218. Not used

219. Not used

Division 4 – Marking trees for purposes of Division 2

220. Purpose of Division

In requiring trees to be marked during logging 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 operations

- (1) White cypress trees must be marked, in accordance with this Division— in any logging operation in which white cypress trees that have a dbhob of 300 mm or more are to be felled.
- (2) Whether an operation is of a type described in subclause (1) 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 white cypress trees may be satisfied either:
 - (a) by marking trees that are selected for felling (“marked for removal”), or
 - (b) by marking trees that are selected for retention to meet such of the requirements of clauses 198, as may be relevant to the operation (“marked for retention”).

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

- (2) When marking white cypress trees for retention (for the purpose of clause 198) at any stage of an operation, only those trees that have a dbhob of 300 mm or more need to be marked.
- (3) 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. Not used

224. Marking glider sap feed trees for retention

- (1) This clause applies to any logging operations to which clause 221 applies.
- (2) A glider sap feed tree must be marked for retention if the tree is a cypress or bull oak tree or any other tree that may be impacted by roadwork.

225. Marking raptor nest trees for retention

A tree that must not be felled under clause 204 (trees that contain raptor nests must not be felled) must be marked for retention at any stage of a logging in which trees are being marked for retention for the purpose of clause 198.

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 198) is required to be marked for retention.

Note: As trees 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) or (3). Accordingly, a tree marked for retention in one operation may be felled in a subsequent operation if that is allowed under clause 230 (2) or (3).

227. Only trees marked for removal may be felled

If, at any stage of a logging operation, a requirement of this Part is met by marking white cypress for removal, only those trees 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. Not used

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 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 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 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.

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 tree in use by a koala at the time of the operation is a tree which must not be felled under clause 205, the tree is a protected tree only for the duration of the logging 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 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 table set out in Schedule 6 as the dbhob for a white cypress tree 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 OEH, a methodology for auditing compliance with the requirements for the retention of trees for the purposes of this Part (namely, clauses 198, and 216). Forests NSW is to endeavour to have in place an auditing methodology (approved by OEH) 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 Approval 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 trees in a sample area (retained for the purposes of clause 32F), including the extent to which estimates may be used,
 - (e) the method of calculating number of trees retained for the purposes of clauses 198, 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 OEH has approved it in writing. It may be amended from time to time with the written approval of OEH.

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. Not used

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 South-Western Cypress 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. Not used

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) white mallee (*Eucalyptus dumosa*),
 - (b) Dwyer's red gum (*Eucalyptus dwyeri*),
 - (c) 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 South-Western Cypress 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.)

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.

Note Under clause 5(4), this approval does not apply to the collection of firewood in an area to which the Integrated Forestry Operations Approval for Riverina Red Gum applies – namely the Riverina bioregion.

- (2) Forests NSW or the holder of an authorisation under section 30I of the Forestry Act 1916 (as the case may require) must ensure:
 - (a) that no more than 20 cubic metres of logs (including vineposts and fenceposts) is obtained from anyone small-scale logging operation, and
 - (b) that a forest product or logging operation to produce firewood under s30I must not occur in Carrathool, Griffith, Corowa or Berrigan Local Government Areas.
- (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:
$$M = Z \times 50$$
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 South-Western Cypress 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 State forests of the South-Western Cypress 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. Not used

242. Construction of roads prohibited to enable harvesting of didgeridoos

- (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.

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 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"),
 - (g1) any area of land that is within 20 metres of a tree that has been identified as habitat for hollow dependent threatened species in a traverse survey or a mark-up survey conducted under this approval:
 - (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:
 - i. 3AWGhPLnk,
 - ii. 3AWGhPgbw,
 - iii. 3AWGhBxxx,
 - iv. 3AWGhPxxx.
- (2) The areas of land referred to in paragraphs (b), (d), (e) and (g) are protection zones for the purposes of this approval.

- (3) Any area of land referred to in paragraph (h) is a Zone 3A ESA for the purposes of this approval.

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
Regent 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 lored whistler	100 metres
Glossy black-cockatoo nest	200 metres

- (2) Despite subclause (1), an area of land around a nest (other than a nest of a 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 OEH'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.

246A. Species protection zones for Painted honeyeaters

- (1) This clause applies to Boree (*Acacia pendula*) or Yarran (*Acacia homalophylla*) trees that are at least 2 metres tall growing in one of the following areas:
- (a) Riverina Bioregion,
 - (b) Carrathool local government area,
 - (c) Griffith local government area.

- (2) Any land within 20 metres of the trunk of such a tree is a species protection zone for a habitat of painted honey eaters if that tree is in a patch of Boree or Yarran trees containing at least 3 trees of either species, being trees that are:
 - (a) at least 2 metres tall, and
 - (b) no more than 20 metres apart from another such tree (of either species but at least 2 metres tall).

246B. Species protection zones for White browed treecreepers

- (1) This clause applies to Bull oak (*Allocasuarina luehmannii*) or Belah (*Casuarina cristata*) trees that are at least 30 cm dbhob growing in one of the following areas:
 - (a) Carrathool local government area, and
 - (b) Griffith local government area.
- (2) Any land within 20 metres of the trunk of such a tree is a species protection zone for the habitat of the endangered population of white browed tree creepers if that tree is in a patch of bull oak or belah trees containing at least 3 trees of either species, being trees that are:
 - (a) at least 30 cm dbhob; and
 - (b) no more than 20 metres apart from another such tree (of either species but at least 30 cm dbhob).

247. Not used

248. Not used

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)
- (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. Not used

251. Not used

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 OEH'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 OEH) that the den was used only by a transient individual.

253. Not used

254. Not used

255. Not used

256. Not used

257. Not used

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) *Acacia curranii*,
- (b) *Acacia ausfeldii*
- (c) *Caladenia arenaria*,
- (d) *Lepidium aschersonii*,
- (e) *Lepidium monplocoides*,
- (f) *Leptorhynchos orientalis*,
- (g) *Rulingia procumbens*,
- (h) *Sida rohelnae*,
- (i) *Swainsona recta*.

259. Not used

260. Box Gum Woodland EEC

- (1) In this clause:

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

“Box Gum Woodland EEC Part 2 Identification Guidelines” means the guidelines of that name set out in 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 EEC

- (1) In this clause:

“Part 1 Inland Grey Box Woodland EEC” means the endangered ecological community identified as Part 1 in accordance with the “Inland Grey Box Woodland EEC Identification Guidelines” set out in Schedule 8,

“Part 2 Inland Grey Box Woodland EEC” means the endangered ecological community identified as Part 2 in accordance with the “Inland Grey Box Woodland EEC Identification Guidelines” set out in Schedule 8.

- (2) Any single area of land of 0.5 hectares or more that consists of Part 1 Inland Grey Box Woodland EEC is a species protection zone.
- (3) Any single area of land of 0.5 hectares or more that consists of Part 2 Inland Grey Box Woodland EEC is an environmentally significant area.
- (4) Forests NSW is to make a written record of the extent and location of any species protection zone or environmentally significant area that it identifies under this clause.

261A. Sandhill Pine Woodland EEC

- (1) Any single area of land of 0.5 hectares or more that consists of Sandhill Pine Woodland EEC according to the Sandhill Pine Woodland EEC Identification Guidelines in Schedule 8 is an environmentally significant area.
- (2) Forests NSW is to make a written record of the extent and location of any environmentally significant area that it identifies under this clause.

261B. Records to be kept of EECs

Forests NSW must keep written records of a species protection zone or environmentally significant area for an EEC identified under clauses 260 – 261A for the remainder of the term of this approval.

262. Not used

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 other hollow dependent threatened fauna 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 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) 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

266. Certain logging operations excluded from operation of Division

- (1) This Division does not apply to the harvesting of branches or stems of trees for didgeridoo production to the extent that it is a logging operation.
- (2) To avoid doubt, this 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 OEH under clause 279,
 - (b) the management of dense cypress re-growth using silviculture, in accordance with an approval of OEH 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.
- (3) Forests NSW or the holder of an authorisation under section 30I of the *Forestry Act 1916* (as the case may require) must ensure that a forest product or logging operation to produce firewood under s30I must not occur in environmentally significant areas.

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. Not used

270. Logging operations in Box Gum Woodland EECs

- (1) Despite clause 267, a logging operation to harvest timber from white cypress trees 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 to harvest timber from white cypress trees (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 a Part 1 Box Gum Woodland EEC with OEH'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 OEH 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.

270A. Logging operations in Inland Grey Box Woodland EEC

- (1) Despite clause 267, a logging operation to harvest timber from white cypress trees may be carried out in a species protection zone for Part 1 Inland Grey Box Woodland EEC but it must be done in accordance with a site specific ecological harvesting plan approved by OEH as improving environmental outcomes.
- (2) Despite clause 267, a logging operation to harvest timber from white cypress trees in an environmentally significant area for Part 2 Inland Grey Box Woodland EEC may be carried out if:
 - (a) the only trees that are to be harvested are *Callitris glaucophylla*; and
 - (b) on completion of the logging operation, sufficient trees of this species with a dbhob of 200 mms or greater are retained so that the spacing between them does not exceed 20 metres.

270B. Logging operations in Sandhill Pine Woodland EEC

- (1) Despite clause 267, a logging operation to harvest timber from a stand of white cypress trees may be carried out in an environmentally significant area for Sandhill Pine Woodland EEC except if:

- (a) the stand contains 2 or more trees per hectare of *Callitris glaucophylla* with a dbhob of more than 500mm: or
 - (b) the stand contains less than 25 trees per hectare of *Callitris glaucophylla*, with a dbhob of more than 200 mm .
- (2) At the completion of any logging operation under this clause, at least 25 *Callitris glaucophylla* trees with a dbhob of 200 mm, per hectare of the stand must be retained.
- (3) The prohibition on logging under this clause extends to –
- (a) a zone of 40 metres around the stems of peripheral *Callitris glaucophylla* trees with a dbhob of more than 500 mm: and
 - (b) a zone of 10 metres around the stems of peripheral *Callitris glaucophylla* trees with a dbhob of more than 200 mm.

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 OEH.
- (3) If there is a record of a threatened species on the proposed route, the route may be used only if OEH 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 OEH 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 OEH 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.
- (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 OEH, and
 - (c) OEH 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 OEH'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 OEH 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. Not used

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) Bush stone-curlew,
 - (c) Malleefowl,
 - (d) Spotted-tailed quoll.
- (2) 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 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.
- (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, Part 1 Box Gum Woodland EEC or Sandhill Pine Woodland EECs) 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 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, 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.

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.
- (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, OEH'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 OEH 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 OEH's approval or a Regional Manager's authorisation.

280. Management of dense cypress re-growth

- (1) Despite clause 267, silviculture activities (including the use of fire) may, with the approval in writing of OEH, be carried out in a dense stand of cypress regrowth within an environmentally significant area.
- (2) Silvicultural activities under this clause may be carried out only in accordance with any conditions imposed by OEH 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 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 managing a dense stand of cypress re-growth using silviculture, 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, OEH's approval in writing.
- (5) Any such burning operation may be carried out only in accordance with any conditions imposed by OEH 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), 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, for Inland Grey Gum Woodland EEC or for Sandhill Pine 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 OEH.
- (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 OEH 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 OEH 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 OEH, and
 - (c) OEH 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 OEH 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 or 282 (4) by a Regional Manager of Forests NSW or OEH (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 OEH (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, and 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 OEH and DPI (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 OEH or DPI (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 OEH 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 South-Western Cypress 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” and “pollution incident” 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*.

- (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) may, for the purpose of fulfilling a duty to notify under section 148 of the Protection of the Environment Operations Act 1997, telephone OEH's Environment Line service on 131 555 or any other officer of OEH nominated by the Chief Executive of the Office of Environment and Heritage for this purpose.
- (3) Written notification of the pollution incident (and all relevant information about it or the information set out in subclause (5)) must also be provided to OEH, within 7 days of Forests NSW becoming aware of the incident.
- (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 OEH a written report on the suspected incident, Forests NSW must do so within the time specified in the notice.
- (5) The written report is to include such of the following information as is specified in the notice that Forests NSW is able to provide:
 - (a) the time, date, nature, duration and location of the incident,
 - (b) the location of the place where pollution is occurring or is likely to occur,
 - (c) the nature, the estimated quantity or volume and the concentration of any pollutants involved,
 - (d) the circumstances in which the incident occurred (including the cause of the incident, if known),
 - (e) contact details of any person who witnessed the incident,
 - (f) any action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution (including any follow-up contact with any complainant in relation to the incident),
 - (g) 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.
- (6) 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.
- (7) 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.

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 OEH

- (1) In addition to the annual report required to be prepared under Chapter 1, Forests NSW is to prepare and give to OEH 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 calendar year commencing on 1 January 2012.
- (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 OEH regarding the results of an audit by OEH 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 OEH 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 OEH?

A return for a year must be forwarded to OEH 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 South-Western Cypess 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 OEH and DPI (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, 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). 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
20. location of any record of the Bush stone curlew,
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,
24. all areas which are designated Ecologically Significant Areas,

Chapter 4 (clause 301)

Existing roads (if greater than 40 metres)

25. location of any existing natural surface roads, bush tracks and fire trails,
26. location of any existing sealed or gravelled roads,
27. names of any existing roads (if available),

New roads (if greater than 40 metres) and other proposed road works

28. 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,
29. location of any sealed or gravelled roads proposed to be constructed or up-graded in the forestry operation,
30. names of any proposed roads (if available),

Drainage feature and wetland crossings

31. location of any drainage feature and wetland crossings (by roads, bush tracks or fire trails),
32. if the forestry operation is a logging operation, approximate location of any drainage feature crossing by an extraction track,

Log dumps, borrow pits, and gravel pits

33. 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,
34. 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 to be constructed,
35. location of any gravel pit or borrow pit proposed to be created or used in the forestry operation.

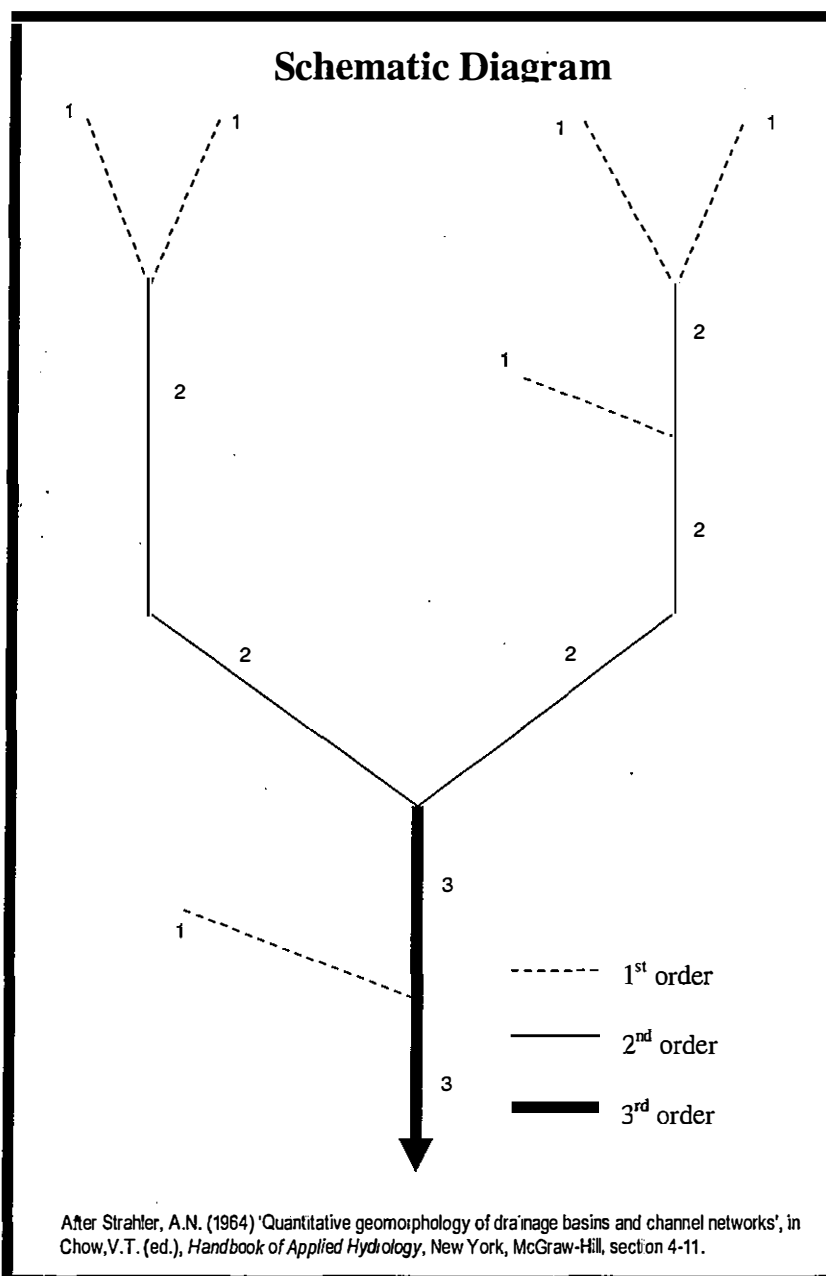
The operational map is to clearly distinguish between any existing roads, bush tracks and fire trails and any roads, bush tracks and fire trails proposed to be constructed in the operation. Further, the operational map is to indicate in relation to each existing road, bush track and fire trail shown 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"/> AMG66 <input type="checkbox"/> MGA94
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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 (<i>attach</i> 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"/> ESA for Part 2 Inland Grey Box Woodland EEC <input type="checkbox"/> ESA for Sandhill Pine 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	Tick the boxes relevant to the proposed action
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) Regional Manager

... ..

Further information as indicated on page 1 – FNSW Regional Manager approval form

1	Area of zone/ESA 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	<p>Site-specific measures to limit risk to: <i>[include the species and proximity to the activity site]</i></p> <p>* Threatened plant species within 50m</p> <p>* Threatened animal species within 100m</p>
5	Barriers/threats to threatened animal species
6	Habitat features
7	Introduction of pests and weeds

Part 2 – Proposed Operations Requiring Assessment and OEH 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"/> AMG66 <input type="checkbox"/> MGA94
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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);	Clause 28, 115, 129, 271 and 286
<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	
Quantity of product that would otherwise be inaccessible: about m ³ /t Vegetation affected: (floristics/structure)	Clause 272 Clause 287

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	<i>Tick the boxes relevant to the proposed action</i>
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)
 Authorised by / /
 FNSW (date) (signed) (name) (position)

Approved by / /
 OEH (date) (signed) (name) (position)

Further information as indicated on page 1 – OEH 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	<p>Site-specific measures to limit risk to: <i>[include the species and proximity to the activity site]</i></p> <p>* Threatened plant species within 50m</p> <p>* Threatened animal species within 100m</p>
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. (a & c) <input type="checkbox"/> To allow removal of (1) the machine or (2) timber and/or vehicles and/or equipment.
<i>For (b) and (c) why not wait until conditions dry out?</i> 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) <i>For clearing beyond 5m upstream or downstream of a crossing:</i> 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) <i>For blading-off a road:</i> 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) <i>For removing machinery from buffer strip when soil is saturated:</i> 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

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 IS NOT APPLICABLE

(Clause 144)

PART 1 – SPECIES TO WHICH SPECIES PROTECTION ZONES RELATE OR FOR WHICH OTHER SPECIFIC MEASURES ARE REQUIRED

Fauna

Barking owl *Ninox connivens*
Black-breasted buzzard *Hamirostra melanosternon*
Beccari's freetail-bat *Mormopterus beccarii*
Bush stone-curlew *Burhinus grallarius*
Bristle-faced free-tailed bat *Mormopterus eleryi*
Eastern false pipistrelle *Falsistrellus tasmaniensis*
Freetail-bats *Mormopterus spp.*
Gang gang cockatoo *Callocephalon fimbriatum*
Glossy black-cockatoo *Calyptorhynchus lathami*
Grey falcon *Falco hypoleucos*
Grey-headed flying-fox *Pteropus poliocephalus*
Greater long eared bat *Nyctophilus corbeni*
Koala *Phascolarctos cinereus*
Inland forest bat *Vespadelus baverstocki*
Little eagle *Hieraaetus morphnoides*
Little pied bat *Chalinolobus picatus*
Little lorikeet *Glossopsitta pusilla*
Major mitchell cockatoo *Cacatua leadbeateri*
Malleefowl *Leipoa ocellata*
Masked owl *Tyto novaehollandiae*
Painted honeyeater *Grantiella picta*
Powerful owl *Ninox strenua*
Red-tailed black-cockatoo *Calyptorhynchus banksii samueli*
Red-lored whistler *Pachycephala rufogularis*
Regent honeyeater *Anthochaera phrygia*
Spotted-tailed quoll *Dasyurus maculatus*
Squirrel glider *Petaurus norfolcensis*
Superb parrot *Polytelis swainsonii*
Spotted harrier *Circus assimilis*
Turquoise parrot *Neophema pulchella*
White-browed Treecreeper *Climacteris affinis*
Yellow-bellied sheath-tail-bat *Saccolaimus flaviventris*

Flora

Acacia curranii Curley wattle
Acacia ausfeldii Ausfeld's Wattle
Austrostipa metatoris A spear-grass
Austrostipa wakoolica A spear-grass
Caladenia arenaria Sand-hill spider orchid
Diuris tricolor Pine donkey orchid
Pterostylis cobarensis Greenhood orchid
Swainsona sericea Silky swainson pea

PART 2 – SPECIES ADEQUATELY PROTECTED BY GENERAL PROVISIONS (SUCH AS FMZs 3A)

Fauna

Australian Bustard *Ardeotis australis*
Brolga *Grus rubicunda*
Black-chinned honeyeater (Eastern subspecies) *Melithreptus gularis gularis*
Black tailed godwit *Limosa limosa*
Blue-billed duck *Oxyura australis*
Brown treecreeper (eastern subspecies) *Climacteris picumnus victoriae*
Flame robin *Petroica phoenicea*
Eastern bent wing bat *Miniopterus schreibersii oceanensis*
Southern Myotis *Myotis macropus*
Gilbert's whistler *Pachycephala inornata*
Grey crowned babbler *Pomatostomus temporalis temporalis*
Hooded robin *Melanodryas cucullata cucullata*
Osprey *Pandion haliaetus*
Plains wanderer *Pedionomus torquatus*
Painted snipe *Rostratula benghalensis australis*
Scarlet robin *Petroica boodang*
Southern bell frog *Litoria raniformis*
Speckled warbler *Pyrrholaemus sagittatus*
Swift parrot *Litoria raniformis*
Sloanes froglet *Crinia sloanei*
White fronted chat *Epthianura albifrons*
Varied sitella *Daphoenositta chrysoptera*

Flora

Brachyscome muelleroides Claypan Daisy
Brachyscome papillosa Mossgiel Daisy
Callitriche cyclocarpa Western Water-starwort
Homoranthus darwinioides a plant
Pilularia novae-hollandiae Austral Pillwort

SCHEDULE 5 – TARGETED SURVEYS FOR PLANTS

(Part 3.2)

PARTS 1 to 5 Not used

PART 6 – TARGETED SURVEYS FOR PLANT SPECIES

Clause numbers 1 to 20 – Not used

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
<i>Acacia curranii</i>	Any season	2km per 100 ha	3 hours per 100ha
<i>Acacia ausfeldii</i>	Any season	2km per 100 ha	3 hours per 100 ha

21A. Timing and survey effort required for targeted surveys of *Caladenia arenaria*

- (1) Targeted surveys for *Caladenia arenaria* must be only be conducted during the flowering period (1 September to 15 September of any given year) at a rate of 10km per 100 hectares.
- (2) This clause applies to logging operations in Buckingbong, Lonesome Pine, Mejum, Yarranjerry and Kentucky State Forests during the period between 30 August to 30 November of any given year.
- (3) If logging operations are undertaken in accordance with this clause Forests NSW must undertake a survey for *Caladenia arenaria* over all parts of the net mapped operational

area where logging operations will take place prior to conducting the operation.

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) track log of GPS points indicating time and date stamp allowing GPS points to be re-surveyed and audited.
 - (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 threatened species 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	29.6	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

SCHEDULE 7 – Not used

(Clause 254)

SCHEDULE 8 – IDENTIFICATION GUIDELINES FOR EECs

(Clauses 260 - 261A)

Part 1 – Box Gum Woodland EEC

Identification key for Part 1 Box Gum Woodland			
1	a	The site is within the NSW South Western Slopes bioregion	Go to 2
	b	The site is not in the above bioregion	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 200mm)	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 South Western Slopes bioregion	Go to 2
	b	The site is not in the above bioregion.	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	The site is not Part 2 Box Gum

		co-dominant	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.

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 Penneplain, Nandewar or Brigalow Belt South Bioregion	Go to 2
	b	The site is not in the Riverina, South Western slopes, Cobar Penneplain, 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 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 on the site.	The site is not Inland Grey Box Woodland EEC
3	a	There is no evidence of previous logging or clearing	The site is Part 1 Inland Grey Box Woodland EEC
	b	There is evidence of previous logging or clearing	Go to 4
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 Part 2 Inland Grey Box Woodland EEC
	b	There are not more than 20 stems per hectare of <i>Callitris glaucophylla</i> with a dbhob of at least 200 mm	The site is Part 1 Inland Grey Box Woodland EEC

Interpretation of key:

In the key:

"canopy species" means *Eucalyptus* spp., *Callitris* spp.

Sandhill Pine Woodland EEC

Identification key for Sandhill Pine Woodland EEC			
1	a	The site is in the State Forests of Boona, Brettts or Ugobit.	Go to 2
	b	The site is not in the State Forests of Boona, Brettts or Ugobit.	The site is not Sandhill Pine Woodland EEC under this approval.
2	a	Trees of <i>Callitris glaucophylla</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>Callitris glaucophylla</i> do not comprise more than 50% of the	The site is not

	canopy cover (that is, vertical projected cover of foliage and live branches) of all canopy species and potential canopy species on the site	Sandhill Pine Woodland EEC under this approval,
3	a	Trees of one, or a combination of, the species <i>Eucalyptus</i> comprise not more than 5% of the canopy cover (that is, vertical projected cover of foliage and live branches of the tree stratum
		The site is Sandhill Pine Woodland EEC under this approval.
		Trees of one, or a combination of, the species <i>Eucalyptus</i> comprise more than 5% of the canopy cover (that is, vertical projected cover of foliage and live branches of the tree stratum
		The site is not Sandhill Pine Woodland EEC under this approval.

Interpretation of key:

In the key:

"canopy species" means *Eucalyptus* 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.

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