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LEGISLATION

Online notification of the making of statutory instruments

Week beginning 3 October 2011

THE following instruments were officially notified on the NSW legislation website (www.legislation.nsw.gov.au) on the dates indicated:

Proclamations commencing Acts

[Business Names \(Commonwealth Powers\) Act 2011 No 44 \(2011-534\)](#) — published LW 7 October 2011

[Public Interest Disclosures Amendment Act 2011 No 37 \(2011-535\)](#) — published LW 7 October 2011

Regulations and other statutory instruments

[Allocation of the Administration of Acts 2011 \(No 5—Amendment\) \(2011-532\)](#) — published LW 5 October 2011

[Criminal Case Conferencing Trial Amendment Regulation 2011 \(2011-536\)](#) — published LW 7 October 2011

[Local Court Rules \(Amendment No 3\) 2011 \(2011-541\)](#) — published LW 7 October 2011

[Poisons and Therapeutic Goods Amendment \(Licences\) Regulation 2011 \(2011-537\)](#) — published LW 7 October 2011

[Public Sector Employment and Management \(General\) Order 2011 \(2011-533\)](#) — published LW 5 October 2011

Environmental Planning Instruments

[Cooma-Monaro Local Environmental Plan 1993—\(Urban\) \(Amendment No 8\) \(2011-538\)](#) — published LW 7 October 2011

[North Sydney Local Environmental Plan 2001 \(Amendment No 44\) \(2011-539\)](#) — published LW 7 October 2011

[Parramatta Local Environmental Plan 2011 \(2011-540\)](#) — published LW 7 October 2011

Other Legislation



New South Wales

Notice of Determination

under the

Threatened Species Conservation Act 1995

The Scientific Committee established under the *Threatened Species Conservation Act 1995* has determined to amend the descriptions of certain ecological communities referred to in paragraphs (a)–(c) below pursuant to section 36A (1) (b) of the Act (being amendments that are necessary or desirable to correct minor errors or omissions) and the descriptions of certain ecological communities referred to in paragraphs (a) (vii) and (viii) below pursuant also to section 36A (1) (c) of the Act (being amendments that are necessary or desirable to clarify a description of an ecological community).

- (a) Part 3 of Schedule 1 to that Act is amended as follows:
- (i) Omit the matter relating to Agnes Banks Woodland in the Sydney Basin Bioregion and insert instead:

Agnes Banks Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (ii) Omit the matter relating to Araluen Scarp Grassy Forest in the South East Corner Bioregion and insert instead:

Araluen Scarp Grassy Forest in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (iii) Omit the matter relating to Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion and insert instead:

Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

Notice of Determination

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- (iv) Omit the matter relating to Brogo Wet Vine Forest in the South East Corner Bioregion and insert instead:

Brogo Wet Vine Forest in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (v) Omit the matter relating to Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion and insert instead:

Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (vi) Omit the matter relating to Dry Rainforest of the South East Forests in the South East Corner Bioregion and insert instead:

Dry Rainforest of the South East Forests in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (vii) Omit the matter relating to Duffys Forest Ecological Community in the Sydney Basin Bioregion and insert instead:

Duffys Forest Ecological Community in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (viii) Omit the matter relating to Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion and insert instead:

* Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (ix) Omit the matter relating to Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion and insert instead:

Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

Notice of Determination

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- (x) Omit the matter relating to Illawarra Subtropical Rainforest in the Sydney Basin Bioregion and insert instead:

Illawarra Subtropical Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xi) Omit the matter relating to Kurri Sand Swamp Woodland in the Sydney Basin Bioregion and insert instead:

Kurri Sand Swamp Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xii) Omit the matter relating to *Melaleuca armillaris* Tall Shrubland in the Sydney Basin Bioregion and insert instead:

Melaleuca armillaris Tall Shrubland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xiii) Omit the matter relating to Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion and insert instead:

Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xiv) Omit the matter relating to Moist Shale Woodland in the Sydney Basin Bioregion and insert instead:

Moist Shale Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xv) Omit the matter relating to Mount Gibraltar Forest in the Sydney Basin Bioregion and insert instead:

Mount Gibraltar Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

Notice of Determination

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- (xvi) Omit the matter relating to Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion and insert instead:

Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xvii) Omit the matter relating to Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion and insert instead:

Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xviii) Omit the matter relating to Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion and insert instead:

Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xix) Omit the matter relating to Robertson Rainforest in the Sydney Basin Bioregion and insert instead:

Robertson Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xx) Omit the matter relating to Shale Gravel Transition Forest in the Sydney Basin Bioregion and insert instead:

Shale Gravel Transition Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xxi) Omit the matter relating to Southern Highlands Shale Woodlands in the Sydney Basin Bioregion and insert instead:

Southern Highlands Shale Woodlands in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

Notice of Determination

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- (xxii) Omit the matter relating to Sydney Freshwater Wetlands in the Sydney Basin Bioregion and insert instead:

Sydney Freshwater Wetlands in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xxiii) Omit the matter relating to Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions and insert instead:

Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xxiv) Omit the matter relating to Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion and insert instead:

Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xxv) Omit the matter relating to Warkworth Sands Woodland of the Sydney Basin Bioregion and insert instead:

Warkworth Sands Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (xxvi) Omit the matter relating to Western Sydney Dry Rainforest in the Sydney Basin Bioregion and insert instead:

Western Sydney Dry Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (b) Part 2 of Schedule 1A to that Act is amended by omitting the matter relating to Blue Gum High Forest in the Sydney Basin Bioregion and inserting instead:

* Blue Gum High Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

Notice of Determination

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- (c) Part 2 of Schedule 2 to that Act is amended as follows:
- (i) Omit the matter relating to Blue Mountains Swamps in the Sydney Basin Bioregion and insert instead:

Blue Mountains Swamps in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 of Part 2)

- (ii) Omit the matter relating to Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions and insert instead:

Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions (as described in the determination of the Scientific Committee under Division 5 of Part 2)

This Notice commences on the day on which it is published in the Gazette.

Dated, this 26th day of August 2011.

Dr Richard Major
Chairperson of the Scientific Committee

Copies of final determination and reasons

Copies of the final determination and the reasons for it are available to members of the public (free of charge) as follows:

- (a) on the Internet at www.environment.nsw.gov.au,
- (b) by contacting the Scientific Committee Unit, by post C/- Office of Environment and Heritage, PO Box 1967, Hurstville BC 1481, by telephone (02) 9585 6940 or by facsimile (02) 9585 6989,
- (c) in person at the Office of Environment and Heritage Information Centre, Level 14, 59–61 Goulburn St, Sydney.

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Agnes Banks Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Agnes Banks Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 11799 to 11803 in the *NSW Government Gazette* No. 148 dated 17 November 2000. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Agnes Banks Woodland is the name given to the plant community from the local government area of Penrith (within the Sydney Basin Bioregion) that is characterised by the following assemblage of species:

<i>Acacia bynoeana</i>	<i>Amperea xiphioclada</i>
<i>Angophora bakeri</i>	<i>Baeckea diosmifolia</i>
<i>Baloskion</i> (prev. <i>Restio</i>) <i>pallens</i>	<i>Banksia aemula</i>
<i>Banksia oblongifolia</i>	<i>Banksia serrata</i>
<i>Bossiaea rhombifolia</i>	<i>Brachyloma daphnoides</i>
<i>Caleana major</i>	<i>Callistemon citrinus</i>
<i>Callistemon linearis</i>	<i>Cassytha glabella</i>
<i>Cheilanthes sieberi</i>	<i>Conospermum taxifolium</i>
<i>Cyathochaeta diandra</i>	<i>Dianella revoluta</i>
<i>Dichondra repens</i>	<i>Dillwynia glaberrima</i>
<i>Dillwynia sericea</i>	<i>Dillwynia tenuifolia</i>
<i>Entolasia stricta</i>	<i>Eucalyptus parramattensis</i>
<i>Eucalyptus sclerophylla</i>	<i>Haemodorum corymbosum</i>
<i>Hibbertia fascicularis</i>	<i>Imperata cylindrica</i>
<i>Isopogon anemonifolius</i>	<i>Kunzea capitata</i>
<i>Lepidosperma laterale</i>	<i>Lepidosperma longitudinale</i>
<i>Lepidosperma urophorum</i>	<i>Leptocarpus tenax</i>
<i>Leptospermum polygalifolium</i>	<i>Leptospermum trinervium</i>
<i>Lepyrodia scariosa</i>	<i>Lomandra glauca</i>
<i>Lomandra multiflora</i>	<i>Melaleuca thymifolia</i>
<i>Microlaena stipoides</i>	<i>Mitrasacme polymorpha</i>
<i>Monotoca scoparia</i> ,	<i>Olax stricta</i>
<i>Persoonia nutans</i>	<i>Philothea</i> (prev. <i>Eriostemon</i>) <i>myoporoides</i>
<i>Philothea salsolifolia</i>	<i>Pimelea linifolia</i>
<i>Platysace ericoides</i>	<i>Pteridium esculentum</i>
<i>Ricinocarpus pinifolius</i>	<i>Schoenus imberbis</i>
<i>Stylidium graminifolium</i>	<i>Thelymitra aristata</i>
<i>Themeda australis</i>	<i>Trachymene incisa</i>
<i>Xanthorrhoea minor</i>	<i>Xyris complanata</i>

2. The total species list of the community is considerably larger than that given in 1 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 1 may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency. A more complete plant species list is in James McDougall & Benson (1999)
3. Agnes Banks Woodland has been recorded from the local government area of Penrith (within the Sydney Basin Bioregion). Bioregions are defined in Thackway and Cresswell (1995).
4. Agnes Banks Woodland is a low woodland dominated by *Eucalyptus sclerophylla* and *Angophora bakeri* with a diverse understorey of sclerophyllous shrubs species including *Banksia oblongifolia*, *Conospermum taxifolium*, *Leptospermum trinervium*, *Dillwynia sericea*, *Monotoca scoparia* and *Persoonia nutans*, and ground stratum species including *Lepidosperma urophorum*, *Platysace ericoides*, *Pimelea linifolia*, *Mitrasacme polymorpha*, *Trachymene incisa* and *Stylidium graminifolium*.
5. Agnes Banks Woodland is restricted to small areas of sand dunes overlying Tertiary Alluvium at Agnes Banks on the east bank of the Hawkesbury River. In low-lying, poorly drained areas it grades into Castlereagh Ironbark Forest. On higher ground where the aeolian sand deposits overly sandy alluvial soils the transition is to Castlereagh Scribbly Gum Woodland to which it is floristically related.

6. The vegetation of Agnes Banks Woodland is described in Benson (1992), James (1997) and National Parks and Wildlife Service Threatened Species Unit (2000).
7. Significant plant species for Agnes Banks Woodland include *Dillwynia tenuifolia*, *Persoonia nutans*, *Acacia bynoeana*, *Banksia aemula*, *Lepidosperma longitudinale*, *Dillwynia glaberrima*, *Xyris complanata*, *Thelymitra aristata* and *Baloskion pallens* (James 1997).
8. Agnes Banks Woodland has been extensively cleared for sand extraction and the community has limited representation in Agnes Banks Nature Reserve. It originally extended over about 2000 ha of which about 80 ha or 4% still survived in 1997 (NPWS Threatened Species Unit 2000). Remnants are threatened with further sand extraction and clearing for rural and rural residential development, as well as other indirect threats associated with proximity to rural, rural residential and sand extraction areas.
9. In view of the small size of existing remnants, and the threat of further clearing and disturbance, the Scientific Committee is of the opinion that Agnes Banks Woodland in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2000 as indicated in the determination

References:

- Benson DH (1992) The natural vegetation of the Penrith 1:100 000 map sheet. *Cunninghamia* 2(4): 541-596.
- James T (1997) *Native flora in Western Sydney: Urban Bushland Biodiversity Survey* (NSW National Parks & Wildlife Service).
- James T, McDougall L, Benson D (1999) *Rare Bushland plants of Western Sydney*. (Royal Botanic Gardens Sydney).
- NPWS Threatened Species Unit (2000) *Interpretation guidelines for the native vegetation maps of the Cumberland Plain, Western Sydney*. (NSW National Parks & Wildlife Service).
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Araluen Scarp Grassy Forest in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Araluen Scarp Grassy Forest in the South East Corner Bioregion (as described in the final determination to list the ecological community) which was published on pages 3465 to 3468 in the *NSW Government Gazette* No. 92 dated 16 July 2010. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Araluen Scarp Grassy Forest in the South East Corner Bioregion is the name given to the community characterised by the assemblage of species listed in paragraph 2 and typically comprising eucalypt tree canopy with an open shrub layer and a grassy groundcover. The community is largely restricted to the escarpment and associated ridges on the northern and western sides of the Araluen valley. It occurs typically on sandy loams derived from granite, usually on steep slopes between approximately 200-700 m ASL. This distribution falls within a rain shadow zone, where mean annual rainfall is approximately 890-1000 mm.
2. Araluen Scarp Grassy Forest in the South East Corner Bioregion is characterised by the following assemblage of species:

<i>Acacia mearnsii</i>	<i>Angophora floribunda</i>
<i>Arthropodium minus</i>	<i>Asplenium flabellifolium</i>
<i>Carex breviculmis</i>	<i>Cenchrus caliculatus</i>
<i>Cheilanthes sieberi</i>	<i>Clematis aristata</i>
<i>Clematis glycinoides</i> var. <i>glycinoides</i>	<i>Crassula sieberiana</i>
<i>Daucus glochidiatus</i>	<i>Desmodium varians</i>
<i>Dichondra</i> spp.	<i>Echinopogon ovatus</i>
<i>Einadia hastata</i>	<i>Elymus scaber</i> var. <i>scaber</i>
<i>Eucalyptus maidenii</i>	<i>Eucalyptus melliodora</i>
<i>Eucalyptus tereticornis</i>	<i>Euchiton gymnocephalus</i>
<i>Ficus rubiginosa</i>	<i>Geitonoplesium cymosum</i>
<i>Glycine clandestina</i>	<i>Hydrocotyle laxiflora</i>
<i>Lagenifera stipitata</i>	<i>Lomandra longifolia</i>
<i>Marsdenia rostrata</i>	<i>Melicytus dentatus</i>
<i>Microlaena stipoides</i>	<i>Notodanthonia longifolia</i>
<i>Oplismenus imbecillis</i>	<i>Oxalis perennans</i>
<i>Pandorea pandorana</i>	<i>Pellaea falcata</i>
<i>Pittosporum undulatum</i>	<i>Plantago debilis</i>
<i>Plectranthus parviflorus</i>	<i>Rumex brownii</i>
<i>Sigesbeackia orientalis</i> subsp. <i>orientalis</i>	<i>Solanum pungetium</i>
<i>Stellaria pungens</i>	<i>Tylophora barbata</i>

Other tree species occurring less frequently in this community include:

<i>Eucalyptus angophoroides</i>	<i>Eucalyptus elata</i>
<i>Eucalyptus eugenioides</i>	<i>Eucalyptus globoidea</i>
<i>Eucalyptus kartzoffiana</i>	<i>Eucalyptus muelleriana</i>
<i>Eucalyptus pilularis</i>	<i>Eucalyptus polyanthemus</i> subsp. <i>tarda</i>

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species; the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
4. Araluen Scarp Grassy Forest in the South East Corner Bioregion is characterised by an overstorey that is usually dominated by *Eucalyptus melliodora* (Yellow Box), *E. maidenii* (Maidens Gum) and *Acacia mearnsii* (Black Wattle). Other trees include *E. globoidea* (White Stringybark) and *E. tereticornis* (Forest Red Gum). The understory often includes an open shrub stratum of small trees dominated by *Melicytus dentatus* and *Pittosporum undulatum*. The grassy ground cover is dominated by *Microlaena stipoides* (Weeping Grass) and *Oplismenus imbecillis* with forbs such as *Dichondra repens* (Kidney Weed), *Desmodium varians* (Slender Tick Trefoil), *Hydrocotyle laxiflora* (Stinking Pennywort), *Hypericum gramineum* (Small St John's Wort), *Glycine clandestina* and the fern *Cheilanthes*

sieberi (Poison Rock Fern). The structure of the community varies depending on past and current disturbances, particularly clearing and grazing. After total or partial clearing, the tree canopy may remain sparse or may regrow to form dense stands of saplings and small trees, which are typically associated with a ground layer of reduced cover and diversity. Either or both of the overstorey and mid-stratum may be absent from the community. Native grasslands derived from clearing of the woodland and forest are also part of this community if they contain characteristic non-woody species listed in paragraph 2.

5. Araluen Scarp Grassy Forest in the South East Corner Bioregion includes: Araluen Acacia Herb/Grass Dry Forest – *E. melliodora* / *E. maidenii* (forest ecosystem 51) of Thomas *et al.* (2000), Araluen Scarp Grassy Forest (map unit 343) of Tindall *et al.* (2004); Araluen Scarp Grassy Forest (map unit p343) of Tozer *et al.* (2004); and parts of Araluen Acacia Herb Dry Grass Forest *Eucalyptus melliodora* / *E. maidenii* (map unit g51) of Gellie (2005). Araluen Scarp Grassy Forest in the South East Corner Bioregion is strongly associated with steeper slopes and, locally, is replaced on the gently undulating valley floor by Araluen Valley Grassy Woodland (map unit GW e20 p229) (Tozer *et al.* 2004). The former is dominated by *E. melliodora* and *E. maidenii* with *Acacia mearnsii* as a sub-dominant while *E. tereticornis* and *E. globoidea* tend to dominate on the flats, with *A. mearnsii* and *A. implexa* as sub-dominants. *Eucalyptus melliodora* and *E. maidenii* may also occur in Araluen Valley Grassy Woodland but are much less common than on the steeper slopes. Araluen Scarp Grassy Forest has a much sparser and much less diverse coverage of grass species than Araluen Valley Grassy Woodland which may be further distinguished from the latter by a representation of species characteristic of moister, more sheltered habitats including *Clematis glycinoides* var. *glycinoides*, *Ficus rubiginosa*, *Marsdenia rostrata*, *Meliccytus dentatus*, *Pandorea pandorana*, *Pellaea falcata*, *Pittosporum undulatum*, *Plectranthus parviflorus* and *Sigesbeckia orientalis* subsp. *orientalis*. On the summit of the escarpment, Araluen Scarp Grassy Forest grades into Southern Tablelands Flats Forest (map unit GW p220 Tozer *et al.* 2004) which is dominated by tableland species such as *E. viminalis* and *E. pauciflora*, and *A. mearnsii* is replaced by *A. melanoxyton*. Southern Tablelands Flats Forest lacks the moister, more sheltered species of Araluen Scarp Grassy Forest. Mountain Wet Fern Forest (map unit WSF e12) may also be found on the higher peaks of the escarpment (Tozer *et al.* 2004). This community is readily distinguishable from Araluen Scarp Grassy Forest by the dominance of *E. cypellocarpa* and *E. fastigata* with a diverse representation of ground ferns and tree ferns in the understorey (Tozer *et al.* 2004). Araluen Scarp Grassy Forest in the South East Corner Bioregion belongs to the Southern Hinterland Dry Sclerophyll Forests vegetation class of Keith (2004).
6. Araluen Scarp Grassy Forest in the South East Corner Bioregion is currently known to occur within the Eurobodalla and Palerang Local Government Areas, but may occur elsewhere in the bioregion. Bioregions are defined in Thackway and Cresswell (1995). Approximately 2 400 ha of the community are mapped in conservation reserves, equating to 15-30% of its pre-European distribution, with most of the remaining area occurring on freehold tenure (Tozer *et al.* 2004).
7. Since European settlement, and relative to the longevity of its dominant trees which live for several hundred years, Araluen Scarp Grassy Forest in the South East Corner Bioregion has undergone an estimated 10-25% reduction in geographic distribution due to clearing (Tozer *et al.* 2004). The extent of occurrence is approximately 350 km² and the area of occupancy is 300 km², based on a minimum convex polygon and a 2 x 2 km grid, respectively, as recommended by IUCN (2008). The geographic distribution of the community is inferred to be highly restricted with the total remaining area estimated to be approximately 9 000 ha (Tozer *et al.* 2004). Estimates by Thomas *et al.* (2000) and Gellie (2005) were based on fewer sites and broader mapping.
8. Like other Southern Hinterland Dry Sclerophyll Forests, steep terrain has prevented extensive clearing of Araluen Scarp Grassy Forest in the South East Corner Bioregion (Tozer *et al.* 2004) although patch clearing associated with agriculture and development of hobby farms may be threatening the community (EcoGIS 2001). Much of this forest is used for rough-country cattle grazing, especially on the lower slopes (Tozer *et al.* 2004, D. Keith pers. comm. 2009), and the understorey and erodible soils are also impacted by feral goats (Tozer *et al.* 2004). Locally and/or periodically heavy grazing of Araluen Scarp Grassy Forest by domestic livestock and feral pests results in the decline and disappearance of palatable plant species, including shrubs and herbs, and compaction and erosion of topsoil, making it difficult for a diverse native understorey to re-establish. The effects of such overgrazing may be exacerbated under drought conditions. The community is susceptible to extreme dry spells which may increase in duration and magnitude under climate change. Field sampling in 2003-04 identified extensive dieback of eucalypt crowns and understoreys attributed to recent extended drought, particularly on the spurs of the escarpment (Tozer *et al.* 2004, D. Keith pers. comm.). Death of leaf canopies was especially pronounced in stringybark eucalypts, suggesting differential susceptibility between species and potential changes in community composition as a result. ‘Competition and habitat degradation by Feral Goats *Capra hircus*’ and ‘Anthropogenic Climate Change’ are listed as Key Threatening Processes under the Threatened Species Conservation Act 1995.
9. Weed invasion may be threatening the ecological function of Araluen Scarp Grassy Forest in the South East Corner Bioregion with parts of the community potentially subject to invasion by pastoral weeds. Survey work to date has focused on the best examples of the community, hence little is known about the patches worst-affected by weeds. The following introduced species however are known to occur within Araluen Scarp Grassy Forest in the South East Corner Bioregion:

<i>Bidens pilosa</i>	Cobblers Pegs
<i>Centaureum erythraea</i>	Common Centaury
<i>Cirsium vulgare</i>	Spear Thistle
<i>Hypochaeris radicata</i>	Catsear

<i>Lepidium africanum</i>	Chilean Whitlow Wort
<i>Paronychia brasiliiana</i>	Inkweed
<i>Phytolacca octandra</i>	Lamb's Tongues
<i>Plantago lanceolata</i>	Sweet Briar
<i>Rosa rubiginosa</i>	Blackberry
<i>Rubus ulmifolius</i>	
<i>Senecio</i> spp.	
<i>Sida rhombifolia</i>	Paddy's Lucerne
<i>Solanum pseudocapsicum</i>	Madeira Winter
<i>Sonchus asper</i>	Prickly Sowthistle
<i>Sonchus oleraceus</i>	Common Sowthistle
<i>Stellaria media</i>	Common Chickweed
<i>Taraxacum officinale</i>	Dandelion
<i>Verbascum virgatum</i>	Twiggy Mullein
<i>Verbena rigida</i>	Veined Verbena

10. Habitat degradation associated with overgrazing, erosion and weed invasion is contributing to a moderate reduction in ecological function of Araluen Scarp Grassy Forest in the South East Corner Bioregion.
11. Araluen Scarp Grassy Forest in the South East Corner Bioregion is not eligible to be listed as a Critically Endangered Ecological Community.
12. Araluen Scarp Grassy Forest in the South East Corner Bioregion is eligible to be listed as an Endangered Ecological Community as, in the opinion of the Scientific Committee, it is facing a very high risk of extinction in New South Wales in the near future, as determined in accordance with the following criteria as prescribed by the Threatened Species Conservation Regulation 2002:

Clause 26

The ecological community's geographic distribution is estimated or inferred to be:

- (b) highly restricted,

and the nature of its distribution makes it likely that the action of a threatening process could cause it to decline or degrade in extent or ecological function over a time span appropriate to the life cycle and habitat characteristics of the ecological community's component species.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2010 as indicated in the determination

References:

- EcoGIS (2001) 'Vulnerable Ecosystems of Eurobodalla Shire.' Report to Eurobodalla Shire Council.
- Gellie NJH (2005) Native vegetation of the southern forests: South-east Highlands, Australian Alps, South-west Slopes and South-east Corner Bioregions. *Cunninghamia* 9, 219-254.
- IUCN (2008) 'Guidelines for using the IUCN Red List Categories and Criteria. Version 7.0.' (Standards and Petitions Working Group of the IUCN Species Survival Commission Biodiversity Assessments Sub-committee: Switzerland). (<http://intranet.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf>).
- Keith DA (2004) 'Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT.' (NSW Department of Environment and Conservation, Sydney)
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)
- Thomas V, Gellie N, Harrison T (2000) 'Forest Ecosystem Classification and Mapping for the Southern CRA Region.' Report for the NSW CRA/RFA Steering Committee, Project No. NS 08EH. NSW National Parks and Wildlife Service, Queanbeyan.
- Tindall D, Pennay C, Tozer MG, Turner K, Keith DA (2004) 'Native vegetation map report series. No. 4. Araluen, Batemans Bay, Braidwood, Burragorang, Goulburn, Jervis Bay, Katoomba, Kiama, Moss Vale, Penrith, Port Hacking, Sydney, Taralga, Ulladulla, Wollongong.' NSW Department of Environment and Conservation and NSW Department of Infrastructure, Planning and Natural Resources, Sydney.
- Tozer MG, Turner K, Keith DA, Simpson C, Beukers P, Mackenzie B, Tindall D, Pennay C (2004) 'Native vegetation of southeast NSW: a revised classification and map for the coast and eastern tablelands.' Version 1.0. NSW Department of Environment and Conservation and NSW Department of Natural Resources, Sydney.

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 2 OF SCHEDULE 1A
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 2 of Schedule 1A (Critically endangered ecological communities) of the Act by inserting the Blue Gum High Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Blue Gum High Forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 2357 to 2363 in the *NSW Government Gazette* No. 54 dated 20 April 2007. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Blue Gum High Forest in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in paragraph 2. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

2. Blue Gum High Forest in the Sydney Basin Bioregion is characterised by the following assemblage of species:

<i>Acmena smithii</i>	<i>Adiantum aethiopicum</i>
<i>Allocasuarina torulosa</i>	<i>Alphitonia excelsa</i>
<i>Angophora costata</i>	<i>Angophora floribunda</i>
<i>Asplenium flabellifolium</i>	<i>Backhousia myrtifolia</i>
<i>Blechnum cartilagineum</i>	<i>Breynia oblongifolia</i>
<i>Calochlaena dubia</i>	<i>Carex maculata</i>
<i>Cissus hypoglauca</i>	<i>Clematis aristata</i>
<i>Clerodendrum tomentosum</i>	<i>Dianella caerulea</i>
<i>Doodia aspera</i>	<i>Elaeocarpus reticulatus</i>
<i>Entolasia marginata</i>	<i>Entolasia stricta</i>
<i>Eucalyptus globoidea</i>	<i>Eucalyptus paniculata</i>
<i>Eucalyptus pilularis</i>	<i>Eucalyptus saligna</i>
<i>Eustrephus latifolius</i>	<i>Ficus coronata</i>
<i>Glochidion ferdinandi</i> var. <i>ferdinandi</i>	<i>Glycine clandestina</i>
<i>Hydrocotyle laxiflora</i>	<i>Leucopogon juniperinus</i>
<i>Lomandra longifolia</i>	<i>Marsdenia rostrata</i>
<i>Maytenus silvestris</i>	<i>Morinda jasminoides</i>
<i>Notelaea longifolia</i> forma <i>longifolia</i>	<i>Oplismenus aemulus</i>
<i>Oplismenus imbecillis</i>	<i>Oxalis perennans</i>
<i>Pandorea pandorana</i>	<i>Persoonia linearis</i>
<i>Pittosporum revolutum</i>	<i>Pittosporum undulatum</i>
<i>Platylobium formosum</i>	<i>Poa affinis</i>
<i>Polyscias sambucifolia</i> subsp. <i>A</i>	<i>Pratia purpurascens</i>
<i>Pseudanthemum variabile</i>	<i>Pteridium esculentum</i>
<i>Rapanea variabilis</i>	<i>Smilax australis</i>
<i>Smilax glycyphylla</i>	<i>Tylophora barbata</i>
<i>Viola hederacea</i>	

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species; the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.

4. Blue Gum High Forest is dominated by a tall canopy of eucalypts that may exceed 30 m in height. Its understorey is typically multi-layered with a midstorey of mesophyllous shrubs and small trees and a diverse ground layer of herbs, ferns and some grasses. Most stands of the community are in a state of regrowth after past clearing or logging activities, and consequently trees may be shorter, less dense or more dense than less disturbed stands. Blue Gum High Forest is dominated by either *Eucalyptus pilularis* (Blackbutt) or *E. saligna* (Sydney Blue Gum). *Angophora costata* (Smooth-barked Apple) is frequently observed in remnants close to the shale/sandstone boundary, but also occurs infrequently on deep shale soils, as does *A. floribunda* (Rough-barked Apple). *Eucalyptus paniculata* (Grey Ironbark) is typically found on upper slopes. A relatively diverse stratum of small trees is usually present, and includes *Pittosporum undulatum* (Sweet Pittosporum), *Elaeocarpus reticulatus* (Blueberry Ash) and *Allocasuarina torulosa* (Forest Oak). Shrub species are typically mesophyllous, such as *Breynia oblongifolia* (Coffee Bush), *Pittosporum revolutum* (Yellow Pittosporum), *Clerodendrum tomentosum*, *Notelaea longifolia* forma

longifolia (Large Mock-olive), *Maytenus sylvestris* (Narrow-leaved Orange Bark), *Polyscias sambucifolia* subsp. A (Elderberry Panax) and *Rapanea variabilis* (Muttonwood). Mesophyllous species are generally more common in gullies associated with both shale and volcanic soils than slopes and ridgetops. Sclerophyllous species such as *Persoonia linearis* (Narrow-leaved Geebung) and *Leucopogon juniperinum* (Prickly Bearded-heath) occur more frequently closer to the shale/sandstone boundary. The ground stratum is often dense and contains a mixture of herb, grass and fern species including *Adiantum aethiopicum*, *Entolasia marginata* (Bordered Panic), *Lomandra longifolia* (Spiny-headed Matrush), *Calochlaena dubia* (Common Groundfern), *Dianella caerulea* (Blue Flax Lily), *Pseuderanthemum variabile* (Pastel Flower) and *Oplismenus imbecillis*. Vine species are also frequently present, in particular *Tylophora barbata* (Bearded Tylophora), *Eustrephus latifolia* (Wombat Berry), *Clematis aristata* (Old Man's Beard) and *Pandorea pandorana* (Wonga Wonga Vine).

5. While no systematic fauna surveys have been carried out across the range of Blue Gum High Forest a number of mammal and bird species listed as threatened in NSW have been recorded as resident or transient in the community. These include the Grey-headed Flying Fox (*Pteropus poliocephalus*), Yellow-bellied Sheath-tail-bat (*Saccolaimus flaviventris*), Glossy Black cockatoo (*Calyptorhynchus lathami*) and the Powerful Owl (*Ninox strenua*).
6. Blue Gum High Forest is typically associated with soils derived from Wianamatta Shale (Tozer 2003), though may occur in adjacent areas underlain by Hawkesbury Sandstone. The community also occurs on soils associated with localised volcanic intrusions, 'diatremes' (Benson and Howell 1994). Typically, Blue Gum High Forest occurs more than 100m above sea level, where rainfall exceeds 1050 mm per annum, although it may be present in sheltered locations with lower rainfall (Tozer 2003). In drier areas and approaching the shale/sandstone boundary, it intergrades with Sydney Turpentine Ironbark Forest, which is currently listed as an Endangered Ecological Community under the TSC Act. Stands that exhibit intermediate characteristics are collectively covered by the Determinations of these communities and may be diagnosed by detailed consideration of the assemblage of species present at the site.
7. Vegetation surveys carried out across the range of Blue Gum High Forest include those of Benson and Howell (1990, 1994) and Tozer (2003). All of these studies describe and map this community as 'Blue Gum High Forest', including map unit 6b 'Tall open-forest: *Eucalyptus pilularis* – *Eucalyptus saligna*' of Benson and Howell (1994) and map unit 153 of Tozer (2003). In addition, Benson and Howell (1994) map separately that part of this community which occurs on soils associated with diatremes as 'Glen Forest, map unit 6c, i. Tall open-forest: *Eucalyptus saligna*', noting that this vegetation was 'very similar to the Blue Gum High Forest of the north shore [i.e. map unit 6b]'. Blue Gum High Forest belongs to the North Coast Wet Sclerophyll Forests vegetation class of Keith (2004).
8. Blue Gum High Forest is found on the north shore and northern suburbs of Sydney and has been recorded from the local government areas of Lane Cove, Willoughby, Ku-ring-gai, Hornsby, Baulkham Hills, Ryde and Parramatta within the Sydney Basin Bioregion and may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
9. Blue Gum High Forest has a very highly restricted geographic distribution, and is currently estimated to cover an extant area of less than 200 ha (Tozer 2003). The distribution comprises a series of small remnant patches, the largest of which is less than 20ha. Highly modified relics of the community also persist as small clumps of trees without a native understorey. All remnants of the community are now surrounded by urban development. Consequently, the distribution of Blue Gum High Forest is severely fragmented. Fragmentation of habitat contributes to a very large reduction in the ecological function of the community.
10. Prior to European settlement, about 200 years ago, Blue Gum High Forest is estimated to have covered an area of approximately 3700 ha (Tozer 2003). Its current extent amounts to less than 5% of this original distribution. The dominant eucalypts of the community live for several hundred years. Blue Gum High Forest has therefore undergone a very large reduction in its geographic distribution within a time span appropriate to the life cycle and habitat characteristics of its component species. Small-scale clearing associated with residential subdivision, road upgrading, extension and maintenance of service easements, etc. pose a threat of ongoing decline in the extent of the community. Clearing of native vegetation is listed as a Key Threatening Process under the Threatened Species Conservation Act 1995.
11. Changes in structure of Blue Gum High Forest have occurred as a consequence of the extensive removal of large old trees. A number of stands of Blue Gum Forests have highly modified understoreys, in which the native woody component has been largely replaced by woody exotic species or by increased abundance of native and exotic grasses. Continued underscrubbing, frequent burning and mowing may maintain the understorey in an artificially open state and prevent recruitment of species with the community. The loss of large trees removes essential habitat for a range of tree-dependent fauna (Gibbons and Lindenmeyer 1996). The reduction of understorey complexity, through the reduction of native shrub cover, degrades habitat for a range of bird and mammal species (Catling 1991). These processes contribute to a very large reduction in the ecological function of the community.
12. The influx of stormwater, which brings excessive moisture, pollutants and nutrients to the remnant forests from surrounding urban areas, is a significant ongoing threat to the ecological integrity of Blue Gum High Forest. This, together with the legacy of past disturbances and the abundance and dispersal of weed propagules from nearby urban areas, results in the invasion, establishment and spread of weeds (Thomson and Leishman 2005). Problematic weed species in Blue Gum High Forest include the following:

<i>Asparagus asparagoides</i>	Bridal Creeper
<i>Cinnamomum camphora</i>	Camphor laurel
<i>Lantana camara</i>	Lantana
<i>Ligustrum lucidum</i>	Large-leaved Privet
<i>Ligustrum sinense</i>	Small-leaved Privet
<i>Ochna serrulata</i>	
<i>Passiflora edulis</i>	Passionfruit
<i>Passiflora subpeltata</i>	Passionfruit
<i>Pennisetum clandestinum</i>	Kikuyu
<i>Rubus ulmifolius</i>	Blackberry
<i>Senna colutioides</i>	
<i>Tradescantia fluminensis</i>	

'Invasion and establishment of exotic vines and scramblers, 'Invasion of native plant communities by exotic perennial grasses' and 'Invasion, establishment and spread of Lantana (*Lantana camara* L. sens. lat)' are listed as Key Threatening Processes under the Threatened Species Conservation Act. The influx of stormwater, pollutants and nutrients, and the invasion of weeds contribute to a very large reduction in the ecological function of the community.

13. Blue Gum High Forest in the Sydney Basin Bioregion is eligible to be listed as a critically endangered ecological community as, in the opinion of the Scientific Committee, it is facing an extremely high risk of extinction in New South Wales in the immediate future, as determined in accordance with the following criteria as prescribed by the Threatened Species Conservation Regulation 2002:

Clause 25

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (a) a very large reduction in geographic distribution.

Clause 26

The ecological community's geographic distribution is estimated or inferred to be:

- (b) very highly restricted,

and the nature of its distribution makes it likely that the action of a threatening process could cause it to decline or degrade in extent or ecological function over a time span appropriate to the life cycle and habitat characteristics of the ecological community's component species.

Clause 27

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (a) a very large reduction in ecological function,
as indicated by any of the following:
- (b) change in community structure
 - (c) change in species composition
 - (f) disruption of ecological processes
 - (g) invasion and establishment of exotic species
 - (h) degradation of habitat
 - (i) fragmentation of habitat

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed as an endangered ecological community in 1997

References:

- Benson DH, Howell J (1990) The natural vegetation of the Penrith 1:100 000 map sheet. *Cunninghamia* **2**, 541-596.
- Benson DH, Howell J (1990) Taken for granted: the bushland of Sydney and its suburbs. (Kangaroo Press: Sydney)
- Catling PC (1991) Ecological effects of prescribed burning practices on the mammals of south-eastern Australia. In: 'Conservation of Australia's forest fauna' (Ed. D Lunney), pp 353-363. (Surrey Beatty and Sons: Sydney).
- Gibbons P, Lindenmeyer DB (1996) A review of issues associated with the retention of trees with hollows in wood production forests. *Forest Ecology and Management* **83**, 245-279.
- Keith DA (2004) Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation, Sydney.
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- Thomson VP, Leishman MR (2005) Post-fire vegetation dynamics in nutrient-enriched and non-enriched sclerophyll woodland. *Austral Ecology* **30**, 250-260
- Tozer MG (2003) The native vegetation of the Cumberland Plain, western Sydney: systematic classification and field identification of communities. *Cunninghamia* **8**, 1-75.

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 10950 to 10954 in the *NSW Government Gazette* No. 131 dated 6 October 2000. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Blue Mountains Shale Cap Forest is the name given to the plant community from the local government areas of Blue Mountains and Hawkesbury (within the Sydney Basin Bioregion) that is characterised by the following assemblage of species.

<i>Acacia elata</i>	<i>Acacia longifolia</i>
<i>Acacia parramattensis</i>	<i>Acianthus exsertus</i>
<i>Adiantum aethiopicum</i>	<i>Allocasuarina littoralis</i>
<i>Allocasuarina torulosa</i>	<i>Angophora costata</i>
<i>Angophora floribunda</i>	<i>Astrotricha latifolia</i>
<i>Backhousia myrtifolia</i>	<i>Blechnum cartilagineum</i>
<i>Blechnum nudum</i>	<i>Bracteantha bracteata</i>
<i>Breynia oblongifolia</i>	<i>Callicoma serratifolia</i>
<i>Calochlaena dubia</i>	<i>Cassytha pubescens</i>
<i>Ceratopetalum gummiferum</i>	<i>Cissus antarctica</i>
<i>Clematis aristata</i>	<i>Dianella caerulea</i>
<i>Dichelachne rara</i>	<i>Dichondra repens</i>
<i>Dodonaea triquetra</i>	<i>Doodia aspera</i>
<i>Echinopogon ovatus</i>	<i>Entolasia marginata</i>
<i>Entolasia stricta</i>	<i>Eucalyptus cypellocarpa</i>
<i>Eucalyptus deanei</i>	<i>Eucalyptus globoidea</i>
<i>Eucalyptus notabilis</i>	<i>Eucalyptus paniculata</i>
<i>Eucalyptus piperita</i>	<i>Eucalyptus punctata</i>
<i>Eustrephus latifolius</i>	<i>Geitonoplesium cymosum</i>
<i>Geranium solanderi</i>	<i>Glycine clandestina</i>
<i>Hakea dactyloides</i>	<i>Hardenbergia violacea</i>
<i>Hibbertia diffusa</i>	<i>Imperata cylindrica</i>
<i>Indigofera australis</i>	<i>Kennedia rubicunda</i>
<i>Lepidosperma laterale</i>	<i>Leucopogon lanceolatus</i>
<i>Lomandra longifolia</i>	<i>Lomatia silaifolia</i>
<i>Microlaena stipoides</i>	<i>Oplismenus aemulus</i>
<i>Oplismenus imbecillis</i>	<i>Ozothamnus diosmifolius</i>
<i>Pandorea pandorana</i>	<i>Persoonia linearis</i>
<i>Phyllanthus hirtellus</i>	<i>Pittosporum revolutum</i>
<i>Pittosporum undulatum</i>	<i>Platysace lanceolata</i>
<i>Polyscias sambucifolia</i>	<i>Pratia purpurascens</i>
<i>Pseudanthemum variabile</i>	<i>Pteridium esculentum</i>
<i>Pultenaea flexilis</i>	<i>Rubus parvifolius</i>
<i>Schoenus melanostachys</i>	<i>Smilax australis</i>
<i>Smilax glycyphylla</i>	<i>Stypandra glauca</i>
<i>Syncarpia glomulifera</i>	<i>Telopea speciosissima</i>
<i>Themeda australis</i>	<i>Tristaniopsis collina</i>
<i>Tylophora barbata</i>	

2. The total species list of the community is considerably larger than that given in 1 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 1 may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
3. Blue Mountains Shale Cap Forest is or has been known to occur in the local government areas of Blue Mountains and Hawkesbury, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

4. The structure of the community was originally tall open forest to open forest, depending on site conditions and history, but as a result of partial clearance may now exist as woodland or as groups of remnant trees.
5. Characteristic tree species are *Eucalyptus deanei* (Deanes Gum), *Eucalyptus cypellocarpa* (Monkey Gum) and *Syncarpia glomulifera* (Turpentine). Other tree species include *Angophora costata*, *Angophora floribunda*, *Eucalyptus notabilis*, *Eucalyptus piperita* and *Eucalyptus punctata*. Tree species composition varies between sites depending on geographical location and local conditions (e.g. topography, rainfall exposure).
6. Blue Mountains Shale Cap Forest is found on deep fertile Wianamatta Shale soils on moist sheltered sites at lower and middle altitudes in the Blue Mountains and Wollemi areas. Extensive occurrences of shale are at Springwood, Berambing to Kurrajong Heights, Mountain Lagoon and Colo Heights.
7. Blue Mountains Shale Cap Forest includes vegetation that is part of Map Unit 9a Shale Cap Forest of the Royal Botanic Gardens 1:100 000 vegetation maps (Keith & Benson 1988, Benson 1992, Ryan *et al* 1996) and part of the *Eucalyptus deanei*-*Syncarpia glomulifera* Tall Open forest of Smith & Smith (1998).
8. Blue Mountains Shale Cap Forest is a rich habitat for fauna, supporting greater numbers and a greater diversity of mammals and birds than the typical lower drier eucalypt forests and woodlands of the Blue Mountains. The *Eucalyptus deanei* trees are a major source of nest hollows for owls, parrots, gliders and other hollow dependent fauna including the Threatened Species, Powerful Owl and Glossy Black-Cockatoo.
9. Blue Mountains Shale Cap Forest has been extensively cleared for past agricultural and urban development and is poorly represented in Blue Mountains and Wollemi National Parks; and is threatened with further clearing for urban development, as well as other indirect threats associated with proximity to urban and agricultural areas.
10. In view of the small size of existing remnants, the threat of further clearing and disturbance, the Scientific Committee is of the opinion that Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion is likely to become extinct in nature unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2000 as indicated in the determination

References:

- Benson, D.H. (1992) The natural vegetation of the Penrith 1:100 000 map sheet. *Cunninghamia* 2(4): 541-596.
- Keith, D.A. & Benson, D.H. (1988) The natural vegetation of the Katoomba 1:100 000 map sheet. *Cunninghamia* 2(1): 107-144.
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**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 2 OF SCHEDULE 2
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 2 of Schedule 2 (Vulnerable ecological communities) of the Act by inserting the Blue Mountains Swamps in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Blue Mountains Swamps in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published in the *NSW Government Gazette* No. 98 dated 3 August 2007 (pages 5609 to 5613) and in the *NSW Government Gazette* No. 99 dated 10 August 2007 (pages 5627 and 5630 to 5634). Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Blue Mountains Swamps in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in paragraph 2. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. The Blue Mountains Swamps in the Sydney Basin Bioregion is characterised by the following assemblage of species:

<i>Acacia terminalis</i>	<i>Almalaea incurvata</i>
<i>Baeckea linifolia</i>	<i>Banksia ericifolia</i> subsp. <i>ericifolia</i>
<i>Banksia spinulosa</i> var. <i>spinulosa</i>	<i>Callistemon citrinus</i>
<i>Dampiera stricta</i>	<i>Drosera binata</i>
<i>Empodisma minus</i>	<i>Entolasia stricta</i>
<i>Epacris obtusifolia</i>	<i>Epacris pulchella</i>
<i>Gahnia sieberiana</i>	<i>Gleichenia dicarpa</i>
<i>Gleichenia microphylla</i>	<i>Gonocarpus teucrioides</i>
<i>Goodenia bellidifolia</i>	<i>Grevillea acanthifolia</i> subsp. <i>acanthifolia</i>
<i>Gymnoschoenus sphaerocephalus</i>	<i>Hakea teretifolia</i>
<i>Hibbertia riparia</i>	<i>Lepidosperma limicola</i>
<i>Leptocarpus tenax</i>	<i>Leptospermum grandifolium</i>
<i>Leptospermum juniperinum</i>	<i>Leptospermum polygalifolium</i>
<i>Lepyrodia scariosa</i>	<i>Lomandra longifolia</i>
<i>Mirbelia rubiifolia</i>	<i>Ptilothrix deusta</i>
<i>Pultenaea divaricata</i>	<i>Sprengelia incarnata</i>
<i>Symphionema montanum</i>	<i>Tetrarrhena turfosa</i>
<i>Xyris ustulata</i>	

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species; the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are not well documented.
4. The Blue Mountains Swamps community is characterised by a dense mixture of shrubs and sedges, most of which have sclerophyllous foliage. The shrub stratum typically varies from 0.5 m to over 2.0 m tall and is highly variable in cover. The ground stratum may be up to about 1 m tall and is dominated by a dense sward of sclerophyllous sedges and grasses except in patches where these are displaced by a dense cover of taller shrubs. Ferns, forbs and small shrubs are scattered amongst the sedges and grasses. There is considerable local variation within the swamps in species composition and vegetation structure, which is apparently related to local soil properties and fire history (Keith and Benson 1988, Holland *et al.* 1991). Structure of the vegetation varies from closed heath or scrub to open heath to closed sedgeland or fernland (Specht 1970). Among the frequently occurring large shrub species, *Baeckea linifolia*, *Leptospermum juniperinum* and *Hakea teretifolia* are relatively ubiquitous, while *L. grandifolium* and *Grevillea acanthifolia* subsp. *acanthifolia* occur primarily on deeper, highly organic, frequently waterlogged soils, and *L. polygalifolium* and *Banksia spinulosa* are typically found on intermittently waterlogged, shallower sandy soils with a moderate organic content. Small shrubs, including *Almalaea incurvata*, *Epacris obtusifolia* and *Sprengelia incarnata*, are typically more abundant on the less waterlogged soils. The large tussock sedge, *Gymnoschoenus sphaerocephalus*, and rhizomatous sedges and cord rushes, including *Lepidosperma limicola*, *Ptilothrix deusta*, *Lepyrodia scariosa* and *Leptocarpus tenax* are generally common throughout the swamps, as are the grasses *Entolasia stricta* and *Tetrarrhena turfosa*. Coral ferns, *Gleichenia* spp., and *Drosera binata* are typical of frequently waterlogged soils, while other herbs, including *Dampiera stricta*, *Mirbelia rubiifolia* and *Gonocarpus teucrioides* occur in more open vegetation on intermittently waterlogged soils.

5. While no systematic fauna surveys have been carried out across the range of the Blue Mountains Swamps community, a number of vertebrate and invertebrate species listed as threatened in NSW have been recorded as resident or transient in the community. These include the Water Skink (*Eulamprus leuraensis*), the Giant Dragonfly (*Petalura gigantea*), the Giant Burrowing Frog (*Heleioporus australiacus*) and the Red-crowned Toadlet (*Pseudophryne australis*). The swamps also provide habitat for the Southern Emu Wren (*Stipiturus malachurus*), Lewin's Rail (*Dryolimnas pectoralis*) and the Buff-banded Rail (*Gallirallus phillippensis*), as well as a range of honeyeaters. A number of plant species recorded in the Blue Mountains Swamps community are endemic to the Blue Mountains area (*Acacia ptyococlada*, *Almaleea incurvata*, *Grevillea acanthifolia* subsp. *acanthifolia*, *Notochloe microdon*, *Olearia quercifolia*, *Symphionema montanum*) and/or threatened in NSW (*Carex klaphakei*, *Eucalyptus copulans*, *Pultenaea glabra*).
6. The Blue Mountains Swamps community is typically associated with the poorly drained headwaters of streams on the predominantly sandstone plateaux of the Blue Mountains. High levels of soil moisture result from the combination of high rainfall (typically exceeding an average of 1000 mm per annum), relatively slow runoff and low subsurface permeability (Young and Wray 2000). The soils typically vary from damp grey-yellow sandy loams to black mineral peats, depending on the level of waterlogging. Upland swamps perform important hydrological functions within the landscape by regulating and sustaining flows, reducing turbidity, and maintaining and enhancing the water quality of discharge streams (Keith *et al.* 2006). The Blue Mountains Swamps community spans an altitudinal range of approximately 500 to 950 m above sea level. It may occur in low-relief and relatively steep terrain, where examples of the community are sometimes described as 'hanging swamps'. In these latter cases, waterlogging may be exacerbated by seepage moisture on the valley sides that emerges from outcropping strata of water-bearing sandstone, which are underlain by less permeable claystone bands ('aquicludes' of Holland *et al.* 1991).
7. With increasing elevation, the Blue Mountains Swamps community intergrades with Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion, which is currently listed as an Endangered Ecological Community under the Threatened Species Conservation Act. The transition occurs around Bell and Clarence at approximately 850-950 m above sea level. The Blue Mountains Swamps community typically has less cover of shrubs, a greater cover of sedges (particularly *Gymnoschoenus sphaerocephalus*) and may occur on steeper terrain than Newnes Plateau Shrub Swamp. The two communities have different suites of *Leptospermum* species, and Newnes Plateau Shrub Swamp contains several shrub species (e.g. *Boronia deanei*, *Dillwynia stipulifera*) and herbs (e.g. *Centella asiatica*, *Geranium neglectum*, *Velleia montana*) that are absent from or uncommon in the Blue Mountains Swamps community. Swamps that exhibit intermediate characteristics are collectively covered by the Determinations of these communities and may be diagnosed by detailed consideration of the assemblage of species present at the site.
8. The Blue Mountains Swamps community shares some characteristics with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, which is listed as an Endangered Ecological Community under the Threatened Species Conservation Act. However, this latter community has a lower diversity of sclerophyllous shrub species, a greater diversity of soft-leaved sedges, grasses and herbs, and typically occurs, not on sandstone, but on more fertile substrates than the Blue Mountains Swamps community. The Blue Mountains Swamps community apparently forms part of Temperate Highland Peat Swamps on Sandstone, which is listed as an Endangered Ecological Community under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.
9. Vegetation surveys carried out across the range of the Blue Mountains Swamps community describe a number of related plant assemblages. The Blue Mountains Swamps community includes 'Blue Mountains Sedge Swamps' (map unit 26a) of Keith and Benson (1988), and Benson and Howell (1990); 'Blue Mountains Swamps' (community 13) of Smith and Smith (1996); 'Hanging Swamp' (map unit S) of Douglas (2001); 'Upland Swamps Tea Tree Thicket' and 'Upland Swamps Cyperoid Heath' (map units 27a and 27b, respectively) of NPWS (2003); and those occurrences of 'Blue Mountains – Shoalhaven Hanging Swamps' (map unit FRW130) of Tindall *et al.* (2004) and Tozer *et al.* (2006), which are mapped within the Hawkesbury-Nepean catchment. This latter map unit also includes swamps on the Morton plateau within Shoalhaven River catchment, which are not part of the Blue Mountains Swamps community, as they lack species endemic to the Blue Mountains area (paragraph 5) and a number of other species that characterise this community. The Blue Mountains Swamps community belongs to the Coastal Heath Swamp vegetation class of Keith (2004). Together with Newnes Plateau Shrub Swamp, the Blue Mountains Swamps community represents a high altitude expression of this vegetation class, which is typically found on coastal plateaux and sandplains.
10. The Blue Mountains Swamps community has been recorded from the local government areas of Blue Mountains and Wollondilly within the Sydney Basin Bioregion and may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
11. The Blue Mountains Swamps community has a total extent of occurrence of less than 2000 km², bounded approximately by the western Blue Mountains escarpment from Bell to Narrow Neck Peninsula, south to Lacys tableland, the Hawkesbury-Nepean River from Lapstone to Kurrajong in the east, and Mt Wilson in the north. Within this range, the community is currently estimated to occupy an area of approximately 3200 ha (based on mapping by Douglas 2001 and Tindall *et al.* 2004). The distribution comprises up to 1400 individually mapped swamps, typically 1-2 ha in size, but varying from less than 0.1 ha up to 70 ha, with only 160 swamps larger than

5 ha. These estimates indicate that the geographic distribution of the Blue Mountains Swamps community is in the range of moderately to highly restricted.

12. The geographic distribution of the Blue Mountains Swamps community is unlikely to have been reduced substantially by past land clearing. Approximately two-thirds of the current area of the community occurs within Blue Mountains National Park. While clearing associated with urban, industrial and rural development is unlikely to directly affect a large portion of the remaining third, small-scale clearing associated with residential subdivisions and urban infrastructure has destroyed several swamps between Hazelbrook and Blackheath in recent decades and could threaten other important examples of the community. 'Clearing of native vegetation' is listed as a Key Threatening Process under the Threatened Species Conservation Act.
13. Continuing urbanisation within the Blue Mountains is also likely to threaten the hydrological integrity and ecological function of the swamps through erosion, sedimentation, eutrophication and weed invasion. At present, approximately one-third (ca. 1000 ha) of the community occurs within catchments that are disturbed by urban or industrial development, plantations, rural infrastructure, airstrips, roads, fire trails or utility easements, including more than 250 ha of swamp within Blue Mountains National Park. The expanding area of sealed and partially sealed surfaces associated with urbanisation (e.g. buildings, roads, concourses, etc.) increases the volume and velocity of surface flows discharged into bushland areas, which will affect the Blue Mountains Swamps community where it is part of the hydrological system between the developed areas and streams. These waters carry increased loads of nutrients originating from a variety of sources including fertilised gardens, lawns and golfcourses, industrial infrastructure, leachates and motor vehicles. Expansion and intensification of urban areas is likely to increase nutrient inputs from these sources. The increased velocity, volume and nutrient content of urban runoff are likely to significantly increase rates of erosion, sedimentation and eutrophication, resulting in damage to swamp soils and native vegetation, creating substrates that are susceptible to weed invasion, and transporting weed propagules into the swamps from disturbed areas. The impacts of erosion are likely to be amplified where the swamps occur in steep terrain. 'Alteration to the natural flow regimes of rivers, streams and their floodplains and wetlands' is listed as a Key Threatening Process under the Threatened Species Conservation Act. Given the distribution of the Blue Mountains Swamps community and its catchments in relation to the current urban interface, transport corridors and utility easements, the influx of stormwater, pollutants and nutrients, and the invasion of weeds contribute to a moderate reduction in the ecological function of the community.

14. Problematic weed species in the Blue Mountains Swamps community include the following:

<i>Ageratina adenophora</i>	Crofton Weed
<i>Anagalis arvensis</i>	Scarlet Pimpernel
<i>Cytisus scoparia</i>	Scotch Broom
<i>Erica lusitanica</i>	Spanish Heath
<i>Ligustrum sinense</i>	Small-leaved Privet
<i>Lonicera japonica</i>	Honeysuckle
<i>Ranunculus repens</i>	Buttercup
<i>Rubus</i> spp.	blackberries
<i>Salix</i> spp.	willows

'Invasion and establishment of exotic vines and scramblers' is listed as a Key Threatening Process under the Threatened Species Conservation Act.

15. Degradation of soils and vegetation within the Blue Mountains Swamps community is also associated with certain types of outdoor recreation activity. Overuse of walking trails and unauthorised use of off-road vehicles including trail bikes result in the compaction of swamp soils, physical damage to vegetation and localised concentration of surface water flows that may result in erosion and sedimentation. Degradation by walkers and off-road vehicles has occurred at several locations between Lawson, Medlow Bath and Mt Hay within and outside the Blue Mountains National Park. Threats to the Blue Mountains Swamps community associated with outdoor recreation represent a moderate reduction in the ecological function of the community and are likely to intensify as urban areas continue to expand and with increasing numbers of residents and visitors in the region.
16. Bushfires may sometimes consume the peaty substrate in localised areas of the Blue Mountains Swamps community (Keith 1996). Where this occurs, seed banks and subsoil rhizomes of living plants may be destroyed. Exposure of such soils to heavy post-fire rainfall may result in significant erosion. A localised example of erosion was observed after fires in the Hazelbrook area within Blue Mountains National Park (JL Porter pers. comm.). Physical disturbance to soils and vegetation by machinery, vehicles, hooved animals or walkers is likely to increase the risk of such events. The Blue Mountains Swamps community may also be exposed to disturbances associated with management of bushfire hazard along the urban interface. These may include construction of access tracks and fuel breaks, slashing, mowing and frequent hazard reduction burning. 'High frequency fire resulting in disruption of life cycle processes in plants and animals and loss of vegetation structure and composition' is listed as a Key Threatening Process under the Threatened Species Conservation Act.
17. Groundwater extraction poses a potential future threat to the Blue Mountains Swamps community by altering the hydrological conditions required to maintain its soils and vegetation. The precise nature and timing of impacts will be difficult to predict and will depend on the relationship between swamp hydrology and the aquifers from which water is extracted, as well as the rates of water extraction. Surface infrastructure may also degrade swamp vegetation. There have been recent proposals to utilise the Blue Mountains Swamps community for production of

bottled spring water. Proposals to extract groundwater for domestic, industrial or rural use are likely to increase as demand exceeds supply from existing water storages.

18. The dependencies and relationships between the Blue Mountains Swamps community and specialised hydrological conditions may predispose the community to impacts associated with anthropogenic climate change (Hughes 2003). The nature and timing of such impacts are uncertain. Most future climate scenarios for NSW project reduced rainfall (Hennessy *et al.* 2004a) and, if this eventuates, a delayed contraction of swamps may result (Keith *et al.* 2006). An increased frequency of extreme weather (Hennessy *et al.* 2004b) is likely to increase the chance of peat fires and severe erosion events. 'Anthropogenic climate change' is listed as a Key Threatening Process under the Threatened Species Conservation Act.
19. The Blue Mountains Swamps in the Sydney Basin Bioregion is not eligible to be listed as an endangered or a critically endangered ecological community.
20. The Blue Mountains Swamps in the Sydney Basin Bioregion is eligible to be listed as a vulnerable ecological community as, in the opinion of the Scientific Committee, it is facing a high risk of extinction in New South Wales in the medium-term future, as determined in accordance with the following criteria as prescribed by the Threatened Species Conservation Amendment Act 2002:

Clause 26

The ecological community's geographic distribution is estimated or inferred to be:

- (c) moderately restricted,

and the nature of its distribution makes it likely that the action of a threatening process could cause it to decline or degrade in extent or ecological function over a time span appropriate to the life cycle and habitat characteristics of the ecological community's component species.

Clause 27

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (c) a moderate reduction in ecological function,
- as indicated by any of the following:
- (d) change in community structure
 - (e) change in species composition
 - (f) disruption of ecological processes
 - (g) invasion and establishment of exotic species
 - (h) degradation of habitat

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2007 as indicated in the determination

References:

- Benson DH, Howell, J (1990) The natural vegetation of the Penrith 1:100 000 map sheet. *Cunninghamia* **2**, 541-596.
- Douglas S (2001) Native vegetation mapping of Areas 1 to 5 in Blue Mountains City local government area. Blue Mountains City Council, Katoomba.
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- Holland WH, Benson DH, McRae RHD (1991) Spatial and temporal variation in a perched headwater valley in the Blue Mountains: geology, geomorphology, vegetation, soils and hydrology. *Proceedings of the Linnean Society of New South Wales* **113**, 271-295.
- Hughes L (2003) Climate change and Australia: Trends, projections and impacts. *Austral Ecology* **28**, 423-443.
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- Keith DA (2004) Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation, Sydney.
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- Tozer MG, Turner K, Simpson C, Keith DA, Beukers P, MacKenzie B, Tindall D, Pennay C (2006). Native vegetation of southeast NSW: a revised classification and map for the coast and eastern tablelands. Version 1.0. NSW Department of Environment and Conservation, NSW Department of Natural Resources, Sydney.
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**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Brogo Wet Vine Forest in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Brogo Wet Vine Forest in the South East Corner Bioregion (as described in the final determination to list the ecological community) which was published on pages 11945 to 11946 and 11956 to 11959 in the *NSW Government Gazette* No. 152 dated 24 November 2000. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Brogo Wet Vine Forest is the name of a forest type described by Keith D. & Bedward M. 1999 (Native Vegetation of the South East Forests Region, Eden, New South Wales. *Cunninghamia* 6(1), 1-100). Further details of the community may be found in this paper.
2. The upper storey of the forest is dominated by *Eucalyptus tereticornis* with occasional *Eucalyptus bosistoana* and *Eucalyptus baueriana*, with rainforest elements such as *Alectryon subcinereus* and *Ficus rubiginosa*. The open shrubby understorey includes *Acacia implexa*, *Cassinia trinerva*, *Deeringia amaranthoides*, *Hymenanchera dentata* and *Breynia oblongifolia*. There is a species-rich ground cover of forbs and graminoids. A variety of vines and twiners occur between the shrub and ground layer including *Marsdenia rostrata*, *Clematis glycinoides*, *Geitonoplesium cymosum*, *Glycine clandestina* and *Stephania japonica*.
3. The plant species assemblage for the community includes:

<i>Acacia implexa</i>	<i>Acacia subporosa</i>
<i>Acmena smithii</i>	<i>Alectryon subcinereus</i>
<i>Angophora floribunda</i>	<i>Asplenium flabellifolium</i>
<i>Breynia oblongifolia</i>	<i>Carex appressa</i>
<i>Cassinia trinerva</i>	<i>Cissus antarctica</i>
<i>Clematis glycinoides</i>	<i>Davallia pyxidata</i>
<i>Deeringia amaranthoides</i>	<i>Desmodium varians</i>
<i>Dichondra repens</i>	<i>Echinopogon ovatus</i>
<i>Eucalyptus baueriana</i>	<i>Eucalyptus bosistoana</i>
<i>Eucalyptus globoidea</i>	<i>Eucalyptus tereticornis</i>
<i>Ficus rubiginosa</i>	<i>Geitonoplesium cymosum</i>
<i>Geranium solanderi</i>	<i>Glycine clandestina</i>
<i>Hydrocotyle laxiflora</i>	<i>Hymenanchera dentata</i>
<i>Lomandra longifolia</i>	<i>Marsdenia rostrata</i>
<i>Microlaena stipoides</i> var. <i>stipoides</i>	<i>Oplismenus imbecillus</i>
<i>Pellaea falcata</i> var. <i>falcata</i>	<i>Poa labillardieri</i> var. <i>labillardieri</i>
<i>Poa meionectes</i>	<i>Pteridium esculentum</i>
<i>Rubus parvifolius</i>	<i>Sigesbeckia orientalis</i>
<i>Stellaria flaccida</i>	<i>Stephania japonica</i> var. <i>discolor</i>
<i>Urtica incisa</i>	
4. The total species list of the community may be larger than that given above with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
5. Brogo Wet Vine Forest is distinguished from other communities in the south east forests of New South Wales by the dominance of *Eucalyptus tereticornis* and the abundance of mesophyll shrubs and vines.
6. Brogo Wet Vine Forest is found in the Brogo – Bega Area and the Candelo – Myrtle Area in the Bega Valley Local Government Area within the South East Corner Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
7. The majority of the community is found on private land.
8. Since 1788 about half of the estimated original extent of Brogo Wet Vine Forest has been cleared for agriculture.
9. Continuing threats to Brogo Wet Vine Forest include further clearing, grazing and weed invasion. Inappropriate fire regimes may pose a potential threat, particularly to the rainforest element in the flora.

10. Given the limited geographical distribution and area extent of the community and 7,8 and 9 above, the Scientific Committee is of the opinion that the Brogo Wet Vine Forest in the South East Corner Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2000 as indicated in the determination

References:

- Keith, D. and Bedward, M. (1999) Native Vegetation of the South East Forests Region, Eden, NSW. *Cunninghamia* 6(1) 1-218.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 2781 to 2785 in the *NSW Government Gazette* No. 85 dated 10 May 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in paragraph 2. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

2. Cooks River/Castlereagh Ironbark Forest is characterised by the following assemblage:

<i>Acacia binervia</i>	<i>Acacia falcata</i>
<i>Angophora bakeri</i>	<i>Angophora floribunda</i>
<i>Aristida ramosa</i>	<i>Aristida vagans</i>
<i>Astroloma humifusum</i>	<i>Austrodanthonia setacea</i>
<i>Austrodanthonia tenuior</i>	<i>Austrostipa pubescens</i>
<i>Austrostipa rudis</i>	<i>Billardiera scandens</i>
<i>Boronia polygalifolia</i>	<i>Bursaria spinosa</i>
<i>Calotis cuneifolia</i>	<i>Cassinia arcuata</i>
<i>Cassytha glabella</i> form <i>glabella</i>	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>
<i>Dianella revoluta</i>	<i>Dichelachne micrantha</i>
<i>Dillwynia parviflora</i>	<i>Dillwynia sieberi</i>
<i>Einadia nutans</i>	<i>Einadia trigonos</i>
<i>Entolasia stricta</i>	<i>Eragrostis brownii</i>
<i>Eucalyptus capitellata</i>	<i>Eucalyptus fibrosa</i>
<i>Eucalyptus longifolia</i>	<i>Eucalyptus moluccana</i>
<i>Eucalyptus resinifera</i>	<i>Exocarpos cupressiformis</i>
<i>Glycine clandestina</i>	<i>Gonocarpus tetragynus</i>
<i>Goodenia belledifolia</i>	<i>Goodenia hederacea</i> subsp. <i>hederacea</i>
<i>Goodenia paniculata</i>	<i>Hakea sericea</i>
<i>Hibbertia empetrifolia</i>	<i>Hibbertia serpyllifolia</i>
<i>Kunzea ambigua</i>	<i>Laxmannia gracilis</i>
<i>Laxmannia gracilis</i>	<i>Lepidosperma laterale</i>
<i>Leptospermum trinervium</i>	<i>Leucopogon juniperinus</i>
<i>Lissanthe strigosa</i>	<i>Lomandra longifolia</i>
<i>Lomandra multiflora</i> subsp. <i>multiflora</i>	<i>Melaleuca decora</i>
<i>Melaleuca decora</i>	<i>Melaleuca nodosa</i>
<i>Microlaena stipoides</i>	<i>Microtis parviflora</i>
<i>Notelaea longifolia</i>	<i>Opercularia diphylla</i>
<i>Orthoceras strictum</i>	<i>Ozothamnus diosmifolius</i>
<i>Ozothamnus diosmifolius</i>	<i>Panicum simile</i>
<i>Paspalidium distans</i>	<i>Podolobium ilicifolium</i>
<i>Pomax umbellata</i>	<i>Poranthera microphylla</i>
<i>Pratia purpurascens</i>	<i>Pultenaea villosa</i>
<i>Rhytidisporum procumbens</i>	<i>Stackhousia viminea</i>
<i>Syncarpia glomulifera</i>	<i>Thelymitra pauciflora</i>
<i>Themeda australis</i>	<i>Vernonia cinerea</i> var. <i>cinerea</i>
<i>Wahlenbergia gracilis</i>	<i>Xanthorrhoea media</i>

3. The total species list of flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes invertebrates, many of which are poorly known, as well as vertebrates. In any particular site not all of the assemblage listed above may be present. At any one time, some species may only be present as seeds in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to sediments or canopy trees and shrubs for example. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
4. Cooks River/Castlereagh Ironbark Forest is predominantly of open-forest to low woodland structure usually with trees of *Eucalyptus fibrosa* and *Melaleuca decora*, sometimes with *Eucalyptus longifolia*. A relatively dense shrub

stratum is typical, commonly with *Melaleuca nodosa* and *Lissanthe strigosa*, and to a lesser extent *Melaleuca decora*. A variety of shrub species may occur, including *Acacia pubescens*, *Dillwynia tenuifolia*, *Daviesia ulicifolia*, *Pultenaea villosa* and *Grevillea juniperina*. Commonly occurring species in the ground stratum include *Entolasia stricta*, *Lepidosperma laterale*, *Opercularia diphylla*, *Dianella revoluta*, *Themeda australis*, *Microlaena stipoides* and *Pratia purpurascens*.

5. Cooks River/Castlereagh Ironbark Forest usually occurs on clay soils on Tertiary alluvium or on shale soils on Wianamatta Shale including the Birrong Soil Landscape and associated shale lowlands.
6. Cooks River/Castlereagh Ironbark Forest is described in NSW NPWS (2000a&b) which lists diagnostic plant species for the community. These species provide a guide to identification of the community, but care should be taken in the application and interpretation of diagnostic plant species because of sampling limitations; the reduction in species diversity in degraded sites; and the fact that some species may only be present at a site at some times as a soil seedbank or as dormant bud/tubers.
7. Cooks River/Castlereagh Ironbark Forest is or has been known to occur in the Auburn, Bankstown, Blacktown, Canterbury, Campbelltown, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta, Penrith and Strathfield local government areas, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
8. It occurred extensively in the Castlereagh area, Holsworthy-Voyager Point area, Kemps Creek area and the upper Cooks River valley, Duck River and associated shale lowlands in the Canterbury-Auburn-Strathfield- Bankstown-Parramatta-Holroyd area.
9. Cooks River/Castlereagh Ironbark Forest may grade into Castlereagh Swamp Woodland in poorly-drained depressions or into Castlereagh Scribbly Gum Woodland where the soil is sandier. Where the Tertiary alluvium is shallow, the community may grade into Shale Gravel Transition Forest.
10. Disturbed Cooks River/Castlereagh Ironbark Forest remnants are considered to form part of the community including remnants where the vegetation would respond to assisted natural regeneration such as where the natural soil and associated seedbank is still at least partially intact.
11. Cooks River/Castlereagh Ironbark Forest has been extensively cleared for urban and rural developments. About 7% of the original distribution is estimated to remain (NSW NPWS 2000a). There has been very extensive clearing and major fragmentation and isolation of remnants in the Canterbury-Auburn-Strathfield-Bankstown-Parramatta-Holroyd area. Much of the remaining area of Cooks River/Castlereagh Ironbark Forest elsewhere has been disturbed by clearing, tracks, weed invasion and soil disturbance. Continuing threats to the community include invasion by exotic species, illegal dumping, water pollution, unauthorised access, fragmentation and clearing for urban, rural-residential, recreational and industrial development.
12. Cooks River/Castlereagh Ironbark Forest has been reported from Agnes Banks Nature Reserve, Castlereagh Nature Reserve and Windsor Downs Nature Reserve. The area of the community in these reserves is about 1.7% of the original distribution.
13. The eastern occurrences of this community, in the Canterbury-Auburn-Strathfield- Bankstown-Parramatta-Holroyd area, are currently listed as the Cooks River Clay Plain Scrub Forest Endangered Ecological Community. The present determination recognises that similar areas in Western Sydney, previously not recognised as part of the community, should be included as part of the listed Endangered Ecological Community.
14. In view of the originally restricted distribution of this community, its inadequate representation within conservation reserves, the extensive disturbance and fragmentation and weed invasion that has occurred and the ongoing development and use threats, the Scientific Committee is of the opinion that Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- NSW NPWS (2000a). *Native vegetation maps of the Cumberland Plain, western Sydney – Interpretation guidelines*. NSW National Parks & Wildlife Service, January 2000.
- NSW NPWS (2000b). *The native vegetation of the Cumberland Plain, Western Sydney – Technical report*. NSW National Parks & Wildlife Service, April 2000.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Dry Rainforest of the South East Forests in the South East Corner Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Dry Rainforest of the South East Forests in the South East Corner Bioregion (as described in the final determination to list the ecological community) which was published on pages 11945 to 11946 and 11960 to 11963 in the *NSW Government Gazette* No. 152 dated 24 November 2000. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Dry Rainforest of the South East Forests is the name given to a forest community described by Keith, D. & Bedward, M. (1999).
2. The community is a rainforest with a dense canopy to 10 m tall with occasional emergent eucalypts. The upperstorey is dominated by *Ficus rubiginosa* with occasional *Pittosporum undulatum* and *Brachychiton populneus* and scattered emergent eucalypts. The sparse understorey shrub layer includes *Alectryon subcinereus*, *Notelaea venosa* and *Hymenanthera dentata*, *Dendrocnide excelsa* and *Deeringia amaranthoides* may be locally common in the northern part of the range. The ground cover is patchy with scattered patches of *Plectranthus graveolens* and *Sigesbeckia orientalis*, with the fern *Pellaea falcata* var. *falcata* and grass *Oplismenus imbecillis* among rocks. *Ficus rubiginosa* is at the southern limit of its geographical distribution within the community.
3. The plant species assemblage for the community includes:

<i>Alectryon subcinereus</i>	<i>Asplenium flabellifolium</i>
<i>Brachychiton populneus</i> var. <i>populneus</i>	<i>Celastrus australis</i>
<i>Clematis glycinoides</i>	<i>Deeringia amaranthoides</i>
<i>Dendrocnide excelsa</i>	<i>Dichondra repens</i>
<i>Eucalyptus polyanthemus</i> var. <i>vestita</i>	<i>Eucalyptus sieberi</i>
<i>Eucalyptus tereticornis</i>	<i>Ficus rubiginosa</i>
<i>Geitonoplesium cymosum</i>	<i>Hymenanthera dentata</i>
<i>Lomandra longifolia</i>	<i>Notelaea venosa</i>
<i>Oplismenus imbecillis</i>	<i>Pellaea falcata</i> var. <i>falcata</i>
<i>Pittosporum undulatum</i>	<i>Plectranthus graveolens</i>
<i>Poa meionectes</i>	<i>Pteridium esculentum</i>
<i>Sigesbeckia orientalis</i>	<i>Solanum aviculare</i>
<i>Urtica incisa</i>	
4. The total species list of the community may be larger than that given above with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
5. Dry Rainforest of the South East Forests is found between Cobargo and Bega, south of Candelo and in the upper Towamba Valley, all in the Bega Valley Local Government Area within the South East Corner Bioregion, on steep upper granite slopes or heads of north facing gullies. A small stand may also occur in the Araluen Valley (Austin & Sheaffe, 1976). Bioregions are defined in Thackway and Cresswell (1995).
6. Most Dry Rainforest is restricted to small patches of less than 10 ha. Some stands occur in Coolangubra National Park but much of the Dry Rainforest is on private land. The total area of the community is believed to be less than 100 ha.
7. Threats to the community include the impacts of grazing of the understorey by cattle, sheep and rabbits, potential further clearing and inappropriate fire regimes which may adversely affect rainforest species.
8. Given the fragmented nature of Dry Rainforest of the South East Forests in the South East Corner Bioregion and 6 and 7 above the Scientific Committee is of the opinion that this Community is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2000 as indicated in the determination

References:

- Austin, M.P. & Sheaffe, J. (1976). Vegetation survey data of the south coast study area, NSW Tech. Memo. 76/15. CSIRO Div. Land Use Res., CSIRO, Canberra.
- Keith, D. and Bedward, M. (1999) Native Vegetation of the South East Forests Region, Eden, NSW. *Cunninghamia* 6(1) 1-218.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Duffys Forest Ecological Community in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Duffys Forest Ecological Community in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 4930 to 4934 in the *NSW Government Gazette* No. 106 dated 28 June 2002 Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference and to clarify the description of the ecological community.

The Scientific Committee has found that:

1. Duffys Forest Ecological Community is the accepted name for the ecological community that occurs on the ridgetops, plateaus, upper slopes and occasionally mid slopes on Hawkesbury sandstone geology, typically in association with laterite soils and soils derived from shale and laminite lenses. It has the structural form predominantly of open-forest to woodland. The Duffys Forest Ecological Community has been reported from the Warringah, Pittwater, Ku-ring-gai, Hornsby and Manly Local Government Areas, although it may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

2. Duffys Forest Ecological Community is characterised by the following assemblage of vascular plant species:

<i>Acacia linifolia</i>	<i>Acacia myrtifolia</i>
<i>Acacia suaveolens</i>	<i>Acacia ulicifolia</i>
<i>Actinotus minor</i>	<i>Allocasuarina littoralis</i>
<i>Angophora costata</i>	<i>Anisopogon avenaceus</i>
<i>Austrostipa pubescens</i>	<i>Banksia ericifolia</i>
<i>Banksia serrata</i>	<i>Banksia spinulosa</i>
<i>Billardiera scandens</i>	<i>Boronia ledifolia</i>
<i>Boronia pinnata</i>	<i>Bossiaea heterophylla</i>
<i>Bossiaea obcordata</i>	<i>Brunoniella pumilio</i>
<i>Cassytha pubescens</i>	<i>Ceratopetalum gummiferum</i>
<i>Conospermum longifolium</i>	<i>Comesperma ericinum</i>
<i>Cyathochaeta diandra</i>	<i>Dampiera stricta</i>
<i>Dianella caerulea</i>	<i>Dillwynia retorta</i>
<i>Dodonaea triquetra</i>	<i>Entolasia stricta</i>
<i>Epacris pulchella</i>	<i>Eucalyptus capitellata</i>
<i>Eucalyptus gummifera</i>	<i>Eucalyptus haemastoma</i>
<i>Eucalyptus sieberi</i>	<i>Gompholobium grandiflorum</i>
<i>Gonocarpus teucroides</i>	<i>Grevillea buxifolia</i>
<i>Grevillea caleyi</i>	<i>Grevillea linearifolia</i>
<i>Hakea dactyloides</i>	<i>Hakea sericea</i>
<i>Hakea teretifolia</i>	<i>Hibbertia bracteata</i>
<i>Hovea linearis</i>	<i>Lambertia formosa</i>
<i>Lasiopetalum ferrugineum</i>	<i>Lepidosperma laterale</i>
<i>Leptospermum trinervium</i>	<i>Lindsaea linearis</i>
<i>Lindsaea microphylla</i>	<i>Lomandra glauca</i>
<i>Lomandra longifolia</i>	<i>Lomandra multiflora</i>
<i>Lomandra obliqua</i>	<i>Lomatia silaifolia</i>
<i>Micrantheum ericoides</i>	<i>Patersonia glabrata</i>
<i>Patersonia sericea</i>	<i>Persoonia levis</i>
<i>Persoonia pinifolia</i>	<i>Petrophile pulchella</i>
<i>Phyllanthus hirtellus</i>	<i>Phyllota phyllicoides</i>
<i>Pimelea linifolia</i>	<i>Platysace linearifolia</i>
<i>Pteridium esculentum</i>	<i>Pultenaea daphnoides</i>
<i>Pultenaea elliptica</i>	<i>Pultenaea linophylla</i>
<i>Telopea speciosissima</i>	<i>Tetrarrhena juncea</i>
<i>Xanthorrhoea media</i>	<i>Xanthosia tridentata</i>
<i>Xylomelum pyriforme</i>	

3. The total species list of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 2 may be present. At any one time, seeds of some species may only be present in the soil seedbank with no above ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above ground composition of species will change with time since fire, and may also change in response to changes in fire frequency. The community is an important

habitat for a diverse fauna (vertebrates and invertebrates), but detailed records are not available from most stands and the invertebrate fauna is poorly known.

4. Smith & Smith (2000) give a list of diagnostic plant species for Duffys Forest Ecological Community and describe how the community can be distinguished from surrounding ecological communities. Diagnostic species provide a guide to identification of the community, but care should be taken in the application and interpretation of diagnostic plant species because of sampling limitations; the reduction in species diversity in degraded sites; and the fact that some species may only be present at a site at some times as a part of the soil seedbank or as dormant buds/tubers.
5. The endangered shrub *Grevillea caleyi* is largely restricted to Duffys Forest Ecological Community though it is not present at all locations of the community. Other threatened plant species known from the community include *Persoonia hirsuta*, *Tetratheca glandulosa*, *Pimelea curviflora* var. *curviflora*, *Epacris purpurascens* var. *purpurascens*.
6. The Scientific Committee noted that general information on the Duffys Forest Ecological Community is contained in:
 - Benson, D. & Howell, J. (1994) The natural vegetation of the Sydney 1:100 000 map sheet. *Cunninghamia* 3(4) 677-787.
 - NPWS (2001) *Grevillea caleyi* R.Br. (Proteaceae) Draft Recovery Plan for public comment. NSW National Parks and Wildlife Service, Hurstville.
 - Thomas, J. & Benson, D.H. (1985) Vegetation survey of Ku-ring-gai Chase National Park. National Herbarium of New South Wales, Royal Botanic Gardens, Sydney.
 - Sheringham, P.R. & Sanders, J.M. (1993) Vegetation survey of Garigal National Park and surrounding Crown Lands. A report for the NSW National Parks and Wildlife Service.
 - Scott, J., Marshall, A. & Auld, T.D. (1995) Conservation research statement and recovery plan for *Grevillea caleyi*. ANCA Endangered Species Project No. 456.
 - Smith, P. & Smith, J. (2000) Survey of the Duffys Forest Vegetation Community. Unpublished Report to NSW National Parks and Wildlife Service and Warringah Council.

These surveys and accompanying maps are by no means inclusive in their representation of Duffys Forest Ecological Community. The scale of the Sydney map is too coarse to map the smaller remnants of this community. The community is highly fragmented by urban developments and not all the small fragments appear on the maps. Duffys Forest Ecological Community is represented on the southern edge of the Ku-ring-gai Chase National Park vegetation map (Thomas & Benson 1985) and the northern edge of the Garigal National Park vegetation map (Sheringham & Sanders 1993). These two maps do not directly abut as there is a gap in the middle comprising cleared land within which small remnant patches of the Duffys Forest Ecological Community exist. Some disturbed or degraded remnants of Duffys Forest Ecological Community may not be mapped as the community in Smith and Smith (2000).

7. It is estimated that only 15% of the original area of the Duffys Forest Ecological Community currently exists in the form of a number of remnants.
8. Threats to the survival of the Duffys Forest Ecological Community include land clearing and associated fragmentation, habitat degradation by rubbish dumping; weed invasion facilitated by urban runoff, an inappropriate fire regime, unauthorised horse riding activities in the area and access by people, trail bikes, and other vehicles.
9. Only a small number of fragments of the Duffys Forest Ecological Community occur within Ku-ring-gai Chase and Garigal National Parks, and all of these are on the boundary of the Parks and bounded by roads.
10. In view of the substantial reduction in the area occupied by the community, its fragmentation and the numerous threats to the community, the Scientific Committee is of the opinion that Duffys Forest Ecological Community is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 6426 to 6430 in the *NSW Government Gazette* No. 133 dated 23 August 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference and to clarify the description of the ecological community.

The Scientific Committee has found that:

1. The Eastern Suburbs Banksia Scrub is the accepted name for the ecological community occurring on nutrient poor sand deposits in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. It has the structural form predominantly of sclerophyllous heath or scrub occasionally with small areas of woodland or low forest, with, depending on local topography and drainage conditions, limited wetter areas.
3. The Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion is characterised by the following assemblage of species.

<i>Acacia longifolia</i>	<i>Acacia suaveolens</i>
<i>Acacia terminalis</i>	<i>Acacia ulicifolia</i>
<i>Actinotus helianthii</i>	<i>Actinotus minor</i>
<i>Allocasuarina distyla</i>	<i>Astroloma pinifolium</i>
<i>Baeckaea imbricata</i>	<i>Banksia aemula</i>
<i>Banksia ericifolia</i>	<i>Banksia integrifolia</i>
<i>Banksia serrata</i>	<i>Bauera rubioides</i>
<i>Billardiera scandens</i>	<i>Boronia parvifolia</i>
<i>Bossiaea heterophylla</i>	<i>Bossiaea scolopendria</i>
<i>Brachyloma daphnoides</i>	<i>Caustis pentandra</i>
<i>Conospermum taxifolium</i>	<i>Cyathochaeta diandra</i>
<i>Darwinia fascicularis</i>	<i>Darwinia leptantha</i>
<i>Dianella revoluta</i>	<i>Dichelachne crinita</i>
<i>Dillwynia retorta</i>	<i>Epacris longiflora</i>
<i>Epacris microphylla</i>	<i>Epacris obtusifolia</i>
<i>Eragrostis brownii</i>	<i>Eriostemon australasius</i>
<i>Eucalyptus gummifera</i>	<i>Gonocarpus teucroides</i>
<i>Haemodorum planifolium</i>	<i>Hakea teretifolia</i>
<i>Hardenbergia violacea</i>	<i>Hibbertia fasciculata</i>
<i>Hypolaena fastigiata</i>	<i>Kunzea ambigua</i>
<i>Lambertia formosa</i>	<i>Lepidosperma laterale</i>
<i>Leptocarpus tenax</i>	<i>Leptospermum laevigatum</i>
<i>Leptospermum trinervium</i>	<i>Lepyrodia scariosa</i>
<i>Leucopogon ericoides</i>	<i>Lomandra longifolia</i>
<i>Melaleuca nodosa</i>	<i>Melaleuca squamea</i>
<i>Monotoca elliptica</i>	<i>Monotoca scoparia</i>
<i>Persoonia lanceolata</i>	<i>Philothea salsolifolia</i>
<i>Pimelea linifolia</i>	<i>Pomax umbellata</i>
<i>Pteridium esculentum</i>	<i>Restio fastigiata</i>
<i>Ricinocarpos pinifolius</i>	<i>Styphelia viridis</i>
<i>Woolfsia pungens</i>	<i>Xanthorrhoea resinifera</i>
<i>Xanthosia pilosa</i>	

4. The total flora species list for the community may be larger than that given above, with many species present only in one or two sites or in very small quantity. In any particular site, not all of the assemblage listed above may be present. At any one time some species may only be present as seeds in the soil seed bank with no above ground individuals present. Invertebrate species are poorly known but some species may be restricted to soils or canopy trees and shrubs. The species composition of a site will be influenced by the size of the site and by its recent disturbance history. For a number of years after a major disturbance dominance by a few species (such as *Kunzea ambigua* or *Leptospermum laevigatum*) may occur, with gradual restoration of a more complex floristic composition and vegetation structure over time. The balance between species will change with time since fire, and may also change in response to changes in fire regimes (e.g. fire frequency).
5. The Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion is distinguished from the coastal heath which occurs along the eastern seaboard on soils derived either directly from sandstone or, if aeolian, of younger age than those of the Eastern Suburbs Banksia Scrub. Coastal heath is characteristically much lower than Eastern Suburbs

Banksia Scrub and, although sharing many species with the Eastern Suburbs Banksia Scrub, characteristically contains a more maritime element including *Baeckea imbricata*, *Correa alba* and *Westringia fruticosa*.

Heathland with *Banksia aemula* has been recorded from the Central Coast by Benson & Howell (1994). These stands have a less dense shrub layer, a greater density of graminoids in the ground layer and differences in total floristics when compared with Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion as defined in this determination and are not regarded as part of this community.

6. The Community has been reported from areas of sand deposits in the local government areas of Botany, Manly, Randwick, Waverley and Woollahra which are all within the Sydney Basin Bioregion. On North Head, within Manly local government area the ecological community occurs on a sand sheet of similar age and composition to that on which the ecological community occurs further south. Bioregions are defined in Thackway and Cresswell (1995).
7. The Scientific Committee noted that general information on the Eastern Suburbs Banksia Scrub is provided in Benson D & Howell J 1990. 'Taken for Granted – The Bushland of Sydney and its Suburbs'. Kangaroo Press, Kenthurst.
8. Less than 1% of the original area of the community currently exists in the form of a number of remnants.
9. Threats to the survival of the community include fragmentation, development, increased nutrient status, inappropriate fire regimes, invasion by exotic plants, grazing by horses and rabbits, erosion from use of bicycles, motorcycles and from excessive pedestrian use.
10. Although a small part of the surviving Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion is included within the Botany Bay National Park, this in itself does not ensure the survival of the community unless the threats to the integrity of the community are ameliorated.
11. In view of the above the Scientific Committee is of the opinion that the Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- Benson, D. & Howell, J. (1994). The natural vegetation of the Sydney 1:100,000 map sheet. *Cunninghamia* **3(4)**, 679 – 787
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 12389 to 12392 in the *NSW Government Gazette* No. 144 dated 24 December 1999. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Illawarra Lowlands Grassy Woodland is the name given to the plant community from the local government areas of Wollongong City, Shellharbour City, and Kiama Municipality (within the Sydney Basin Bioregion sensu Thackway and Cresswell 1995) that is characterised by the following assemblage of species:

<i>Acacia falcata</i>	<i>Acacia implexa</i>
<i>Acacia maidenii</i>	<i>Acacia mearnsii</i>
<i>Acacia stricta</i>	<i>Allocasuarina littoralis</i>
<i>Angophora floribunda</i>	<i>Aristida ramosa</i>
<i>Aristida vagans</i>	<i>Athropodium milleflorum</i>
<i>Boronia polygalifolia</i>	<i>Bothriochloa macra</i>
<i>Brachychiton populneus</i>	<i>Brunoniella pumilio</i>
<i>Bursaria spinosa</i>	<i>Callistemon salignus</i>
<i>Carex longebrachiata</i>	<i>Cheilanthes sieberi</i>
<i>Citriobatus pauciflorus</i>	<i>Commelina cyanea</i>
<i>Cymbopogon refractus</i>	<i>Daviesia genistifolia</i>
<i>Daviesia ulicifolia</i>	<i>Desmodium rhytidophyllum</i>
<i>Desmodium varians</i>	<i>Dianella revoluta</i>
<i>Dichondra repens</i>	<i>Dodonaea viscosa</i> var. <i>angustifolia</i>
<i>Echinopogon caespitosus</i>	<i>Echinopogon ovatus</i>
<i>Entolasia stricta</i>	<i>Eragrostis</i> sp.
<i>Eucalyptus amplifolia</i>	<i>Eucalyptus bosistoana</i>
<i>Eucalyptus botryoides</i>	<i>Eucalyptus botryoides/saligna</i>
<i>Eucalyptus eugenioides</i>	<i>Eucalyptus longifolia</i>
<i>Eucalyptus pilularis</i>	<i>Eucalyptus tereticornis</i>
<i>Gahnia radula</i>	<i>Geitonoplesium cymosum</i>
<i>Geranium solanderi</i>	<i>Glycine</i> sp.
<i>Goodenia hederacea</i> subsp. <i>hederacea</i>	<i>Hardenbergia violacea</i>
<i>Hibbertia aspera</i>	<i>Hypericum gramineum</i>
<i>Hypoxis hygrometrica</i>	<i>Jacksonia scoparia</i>
<i>Kennedia rubicunda</i>	<i>Lepidosperma laterale</i>
<i>Leucopogon juniperinum</i>	<i>Lomandra filiformis</i>
<i>Lomandra multiflora</i>	<i>Melaleuca decora</i>
<i>Melaleuca styphelioides</i>	<i>Microlaena stipoides</i>
<i>Oplismenus aemulus</i>	<i>Oplismenus imbecillis</i>
<i>Panicum</i> sp.	<i>Parsonsia straminea</i>
<i>Plectranthus parviflorus</i>	<i>Poa labillardieri</i>
<i>Pratia purpurascens</i>	<i>Pultenaea retusa</i>
<i>Pultenaea villosa</i>	<i>Rubus parvifolius</i>
<i>Stellaria flaccida</i>	<i>Themeda australis</i>
<i>Tricoryne elatior</i>	<i>Veronica calycina</i>
<i>Wahlenbergia</i> sp.	

2. The total species list of the community is considerably larger than that given in 1 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 1 may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
3. Illawarra Lowlands Grassy Woodland has been recorded from the local government areas of Wollongong City, Shellharbour City and Kiama Municipality (within the Sydney Basin Bioregion). Bioregions are defined in Thackway and Cresswell (1995).
4. Illawarra Lowlands Grassy Woodland includes the Yallah Woodland and Mills' (1997) communities of the Floodplains, communities of the Ridges and Slopes (Dry communities) and communities of the lower escarpment

(Moist communities), but does not include Floodplain Communities dominated by *Casuarina* species or rainforest on latite soils.

5. Characteristic tree species in the Illawarra Lowlands Grassy Woodland are *Eucalyptus tereticornis*, *Eucalyptus eugenioides*, *Eucalyptus longifolia*, *Eucalyptus bosistoana* and *Melaleuca decora*.
6. Illawarra Lowlands Grassy Woodland occurs on relatively gently sloping to undulating lands less than about 200 m elevation on Berry Siltstone, Budgong Sandstone and Quaternary alluvium.
7. Illawarra Lowlands Grassy Woodland provides habitat for the endangered orchid *Pterostylis gibbosa*.
8. No areas of Illawarra Lowlands Grassy Woodland are presently included in formal conservation reserves though some occur in small council reserves including Blackbutt Reserve and Croome Road Reserve in Shellharbour.
9. Large areas of Illawarra Lowlands Grassy Woodland have been cleared. Most remnants are small and fragmented and their long term viability is threatened. Some remnants consist of regrowth after clearing or other disturbances. Identified threats include further clearing, grazing, weed invasion, selective logging, rubbish dumping, housing and hobby farm developments and physical damage from recreational activities.
10. In view of the small size of existing remnants, the threat of further clearing and other threatening processes, the Scientific Committee is of the opinion that Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion is likely to become extinct in nature unless factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 1999 as indicated in the determination

References:

- Kevin Mills & Associates (1997) *Ecological Study Figtree Estate and Forest Red Gum Communities of the Illawarra Coastal Plain*. (prepared for Stockland Trust Group Ltd Sydney).
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Illawarra Subtropical Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Illawarra Subtropical Rainforest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published in the *NSW Government Gazette* No. 201 dated 1 November 2002 (pages 9355 to 9356) and in the *NSW Government Gazette* No. 210 dated 8 November 2002 (pages 9560 to 9561). Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Illawarra Subtropical Rainforest is the name given to the ecological community on high nutrient soils in the Illawarra area within the Sydney Basin Bioregion (*sensu* Thackway and Cresswell 1995) and is characterised by the following assemblage of species.

<i>Adiantum formosum</i>	<i>Alectryon subcinereus</i>
<i>Alphitonia excelsa</i>	<i>Baloghia inophylla</i>
<i>Brachychiton acerifolius</i>	<i>Cassine australis</i>
<i>Cayratia clematidea</i>	<i>Celastrus australis</i>
<i>Cissus antarctica</i>	<i>Citriobatus pauciflorus</i>
<i>Dendrocnide excelsa</i>	<i>Diospyros pentamera</i>
<i>Diploglottis australis</i>	<i>Doodia aspera</i>
<i>Ehretia acuminata</i>	<i>Ficus</i> spp.
<i>Guioa semiglauc</i>	<i>Hibiscus heterophyllus</i>
<i>Legnephora moorei</i>	<i>Maclura cochinchinensis</i>
<i>Malaisia scandens</i>	<i>Pennantia cunninghamii</i>
<i>Piper novaehollandiae</i>	<i>Planchonella australis</i>
<i>Podocarpus elatus</i>	<i>Scolopia braunii</i>
<i>Streblus brunonianus</i>	<i>Toona ciliata</i>
<i>Wilkiea huegliana</i>	

2. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in very small quantity. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species, the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
3. Illawarra Subtropical Rainforest has been recorded from the local government areas of Wollongong City, Shellharbour City, Shoalhaven City and Kiama Municipality (within the Sydney Basin Bioregion) and may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
4. Illawarra Subtropical Rainforest includes Subtropical Rainforest (Type 1), Moist Subtropical Rainforest (Type 2) and Dry Subtropical Rainforest (Type 3) of Mills, K & Jakeman, J. (1995) *Rainforests of the Illawarra District* (Coachwood Publishing, Jamberoo). (The classification of Mills & Jakeman was developed specifically for the Illawarra – in a broader context much of the community recognised here would fall within dry forest (suballiance 23) in Floyd, A. G. (1990). *Australian rainforests in New South Wales* (Vols 1 and 2, Surrey Beatty and Sons, Chipping Norton). Although rainforest canopies are generally closed, in highly disturbed stands the canopy may be irregular and open. Canopy height varies considerably, and structurally some stands are scrub.
5. Characteristic tree species in the Illawarra Subtropical Rainforest are *Baloghia inophylla*, *Brachychiton acerifolius*, *Dendrocnide excelsa*, *Diploglottis australis*, *Ficus* spp., *Pennantia cunninghamii* and *Toona ciliata*. Stands may have species of *Eucalyptus*, *Syncarpia* and *Acacia* as emergents or incorporated into the dense canopy.
6. Illawarra Subtropical Rainforest occurred mainly on the coastal Permian volcanics, but can occur on a range of geological substrates, mainly between Albion Park and Gerringong (termed the Illawarra Brush by Mills and Jakeman 1995) and north of Lake Illawarra on the Berkeley Hills (termed the Berkeley Brush by Mills & Jakeman 1995). The Illawarra Brush and Berkeley Brush originally covered about 13 600 ha and made up about 60% of the rainforest of the Illawarra area. Outlying occurrences of Illawarra Subtropical Rainforest also occur south to the Shoalhaven River and westwards into Kangaroo Valley, where areas of Permian volcanic soils occur. The community generally occurs on the coastal plain and escarpment foothills, rarely extending onto the upper escarpment slopes.

7. Illawarra Subtropical Rainforest provides habitat for the tree *Daphnandra* sp. C Illawarra, and in some drier stands the endangered vine *Cynanchum elegans*. The shrub *Zieria granulata* may grow near stands of Illawarra Subtropical Rainforest and in regrowth stands (K. Mills pers. comm.).
8. Small areas of Illawarra Subtropical Rainforest occur in Budderoo National Park, Macquarie Pass National Park, Morton National Park, Cambewarra Range Nature Reserve, Devils Glen Nature Reserve and Rodway Nature Reserve.
9. Large areas of Illawarra Subtropical Rainforest have been cleared for agriculture. Only about 3400 ha remains with about 13% of this (440 ha) in reserved areas (Mills & Jakeman 1995, L. Mitchell pers. comm). Illawarra Subtropical Rainforest occurs mainly on private land and is inadequately protected. Compared with warm temperate rainforest it is under-represented in conservation reserves.
10. Remnants are small and fragmented and their long term viability is threatened. Weed invasion is a major threat and invasive exotic species include *Lantana camara*, *Araujia sericiflora*, *Ageratina riparia*, *Ageratina adenophora*, *Delairea odorata*, *Senna pendula* var. *glabra*, *Senna septemtrionalis*, *Tradescantia fluminensis*, *Cinnamomum camphora*, *Olea europea* subsp. *africana*, *Hedychium gardnerianum*, *Ligustrum lucidum*, *Ligustrum sinense*, *Passiflora subpeltata* and *Solanum mauritianum*. Other threats include further clearing, quarrying, grazing, inappropriate fire regimes, rubbish dumping and hobby farm developments.
11. In view of the above the Scientific Committee is of the opinion that Illawarra Subtropical Rainforest in the Sydney Basin Bioregion is likely to become extinct in nature in NSW unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Kurri Sand Swamp Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Kurri Sand Swamp Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 3045 to 3048 in the *NSW Government Gazette* No. 93 dated 1 June 2001. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Kurri Sand Swamp Woodland is the name given to the ecological community that occurs on soils developed over poorly-drained Tertiary sand deposits that blanket Permian sediments around Kurri Kurri. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Kurri Sand Swamp Woodland generally ranges from low open-woodland to low woodland and open scrub. There is generally a low open canopy rarely exceeding 15 m in height, with *Eucalyptus parramattensis* subsp. *decadens*, *Angophora bakeri* and occasionally *Eucalyptus signata* and *Eucalyptus sparsifolia*. The shrubby stratum is typified by *Melaleuca nodosa*, *Banksia spinulosa*, *Dillwynia retorta*, *Jacksonia scoparia*, *Hakea dactyloides*, *Acacia ulicifolia* and *Lambertia formosa* and merges into the ground layer. The ground layer has grasses and low shrubs such as *Entolasia stricta*, *Pimelea linifolia*, *Lissanthe strigosa* and *Melaleuca thymifolia*. A considerable number of ground orchid species have been recorded in the area.
3. Kurri Sand Swamp Woodland is a low open-woodland to low woodland and open scrub characterised by the assemblage of species listed below. While some of the species listed below may be widespread and may occur elsewhere, it is the following distinct assemblage that is recognised as the Kurri Sand Swamp Woodland ecological community.

The total species flora and fauna list for the community is considerably larger than the assemblage of species shown below, with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site, recent rainfall or drought conditions and by its recent disturbance history. The community includes vertebrates and invertebrates in both soil and vegetation, many of which are poorly known.

<i>Acacia elongata</i>	<i>Acacia myrtifolia</i>
<i>Acacia ulicifolia</i>	<i>Angophora bakeri</i>
<i>Anisopogon avenaceus</i>	<i>Aristida vagans</i>
<i>Baeckea diosmifolia</i>	<i>Banksia spinulosa</i>
<i>Bossiaea rhombifolia</i>	<i>Conospermum ericifolium</i>
<i>Cyathochaeta diandra</i>	<i>Dampiera stricta</i>
<i>Dianella revoluta</i> var <i>revoluta</i>	<i>Dillwynia retorta</i>
<i>Entolasia stricta</i>	<i>Eucalyptus agglomerata</i>
<i>Eucalyptus capitellata</i>	<i>Eucalyptus fibrosa</i>
<i>Eucalyptus parramattensis</i> subsp. <i>decadens</i>	<i>Eucalyptus signata</i>
<i>Eucalyptus sparsifolia</i>	<i>Grevillea linearifolia</i>
<i>Grevillea montana</i>	<i>Haemodorum planifolium</i>
<i>Hakea dactyloides</i>	<i>Hovea linearis</i>
<i>Jacksonia scoparia</i>	<i>Lambertia formosa</i>
<i>Leptospermum polygalifolium</i>	<i>Leucopogon ericoides</i>
<i>Leucopogon virgatus</i>	<i>Lissanthe strigosa</i>
<i>Lomandra longifolia</i>	<i>Macrozamia flexuosa</i>
<i>Melaleuca decora</i>	<i>Melaleuca nodosa</i>
<i>Melaleuca sieberi</i>	<i>Melaleuca thymifolia</i>
<i>Paterosonia sericea</i>	<i>Persoonia levis</i>
<i>Persoonia linearis</i>	<i>Phebalium squamulosum</i>
<i>Pimelea linifolia</i>	<i>Ptilothrix deusta</i>
<i>Themeda australis</i>	<i>Xanthorrhoea glauca</i>

4. Kurri Sand Swamp Woodland is or has been known to occur in the Kurri Kurri – Cessnock area in the lower Hunter Valley, in the local government area of Cessnock, but may occur elsewhere.
5. Kurri Sand Swamp Woodland includes vegetation described in NSW National Parks and Wildlife Service – (2000)
6. Disturbed remnants are considered to form part of the community including remnants where the vegetation would respond to assisted natural regeneration such as where the natural soil and associated seedbank is still at least partially intact.

7. Kurri Sand Swamp Woodland has been fragmented and is subject to weed invasion and ongoing disturbances. Threats include increased urbanisation, transport and utility corridors, industrial development, changes to drainage conditions, weed invasion, rubbish dumping and inappropriate fire regimes.
8. The only known occurrence of Kurri Sand Swamp Woodland reported from conservation areas is in the Lower Hunter National Park.
9. Plant species of conservation significance occurring in Kurri Sand Swamp Woodland are *Eucalyptus parramattensis* subsp. *decadens* and *Grevillea parviflora* subsp. *parviflora*, both listed as Vulnerable under Schedule 2.
10. In view of the small size of existing remnants, and the threat of further clearing, disturbance and degradation, the Scientific Committee is of the opinion that Kurri Sand Swamp Woodland in the Sydney Basin Bioregion is likely to become extinct in nature unless factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2001 as indicated in the determination

References:

- NSW National Parks and Wildlife Service (2000). Vegetation Survey, Classification and Mapping. Lower Hunter and Central Coast Region. National Parks and Wildlife Service, Sydney
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 2 OF SCHEDULE 2
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 2 of Schedule 2 (Vulnerable ecological communities) of the Act by inserting the Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions (as described in the final determination to list the ecological community) which was published on pages 6573 to 6577 in the *NSW Government Gazette* No. 82 dated 4 July 2008. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions is the name given to the ecological community typically occurring on Carboniferous sediments of the Barrington footslopes in the Hunter Valley. The community usually forms a closed forest 15-20m high with emergent trees 20-30m high. Vines are abundant and there is a dense shrub and ground layer. All sites are within the Sydney Basin Bioregion and NSW North Coast Bioregion. Those sites within the NSW North Coast Bioregion are in the southern part of the bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions is characterised by the following assemblage of species:

<i>Adiantum aethiopicum</i>	<i>Alectryon subcinereus</i>
<i>Alectryon tomentosus</i>	<i>Alphitonia excelsa</i>
<i>Aphanopetalum resinosum</i>	<i>Baloghia inophylla</i>
<i>Brachychiton populneus</i> subsp. <i>populneus</i>	<i>Breynia oblongifolia</i>
<i>Capparis arborea</i>	<i>Cayratia clematidea</i>
<i>Claoxylon australe</i>	<i>Clerodendrum tomentosum</i>
<i>Commelina cyanea</i>	<i>Corymbia maculata</i>
<i>Cupaniopsis anacardioides</i>	<i>Dendrocnide excelsa</i>
<i>Dioscorea transversa</i>	<i>Diospyros australis</i>
<i>Doodia aspera</i>	<i>Drypetes australasica</i>
<i>Elaeocarpus obovatus</i>	<i>Elaeodendron australis</i> var. <i>australis</i>
<i>Eucalyptus acmenoides</i>	<i>Eucalyptus punctata</i>
<i>Eustrephus latifolius</i>	<i>Ficus coronata</i>
<i>Gahnia melanocarpa</i>	<i>Geitonoplesium cymosum</i>
<i>Guoia semiglauc</i>	<i>Hibiscus heterophyllus</i>
<i>Jasminum volubile</i>	<i>Lepidosperma laterale</i>
<i>Lomandra longifolia</i>	<i>Maclura cochinchinensis</i>
<i>Mallotus philippensis</i>	<i>Melaleuca styphelioides</i>
<i>Melia azedarach</i>	<i>Melicope micrococca</i>
<i>Morinda jasminoides</i>	<i>Myrsine variabilis</i>
<i>Notelaea longifolia</i>	<i>Olea paniculata</i>
<i>Oplismenus aemulus</i>	<i>Pandorea pandorana</i> subsp. <i>pandorana</i>
<i>Pararchidendron pruinatum</i> var. <i>pruinatum</i>	<i>Parsonsia straminea</i>
<i>Pellaea falcata</i>	<i>Pellaea paradoxa</i>
<i>Peperomia leptostachya</i>	<i>Pittosporum multiflorum</i>
<i>Plectranthus parviflorus</i>	<i>Pouteria australis</i>
<i>Pseuderanthemum variabile</i>	<i>Sarcopetalum harveyanum</i>
<i>Scolopia braunii</i>	<i>Streblus brunonianus</i>
<i>Syzygium australe</i>	<i>Tetrastigma nitens</i>
<i>Triplodenia cunninghamii</i>	

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species, the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
4. Lower Hunter Valley Dry Rainforest typically has a canopy of 15-25m high with 40-80% cover. The most common trees include *Elaeocarpus obovatus* (Hard Quandong), *Alectryon subcinereus* (Wild Quince), *Baloghia inophylla* (Brush Bloodwood), *Melia azedarach* (White Cedar), *Melicope micrococca* (Hairy-leaved Doughwood), *Scolopia braunii* (Flintwood), *Streblus brunonianus* (Whalebone Tree), *Mallotus philippensis* (Red Kamala), *Capparis*

arborea (Brush Caper Berry), *Olea paniculata* (Native Olive), *Guioa semiglaucula* (Guioa), *Alectryon tomentosus* (Hairy Alectryon), *Claoxylon australe* (Brittlewood), *Elaeodendron australe* var. *australe* (Red Olive Plum), *Diospyros australis* (Black Plum) and *Pararchidendron pruinosum* var. *pruinoseum* (Snow Wood). The shrub layer is dense with common species including *Notelaea longifolia* (Large Mock Olive), *Breynia oblongifolia* (Coffee Bush), *Clerodendrum tomentosum* (Hairy Clerodendrum) and *Pittosporum revolutum* (Hairy Pittosporum). Vines are very abundant and include *Pandorea pandorana* subsp. *pandorana* (Wonga Vine), *Geitonoplessium cymosum* (Scrambling Lily), *Cayratia clematidea* (Native Grape), *Jasminum volubile* (Stiff Jasmine) and *Maclura cochinchinensis* (Cockspur Thorn). The ground cover is often dense and is comprised of forbs, grasses and ferns. The common species include, *Commelina cyanea* (Scurvy Weed), *Dichondra repens* (Kidney Weed), *Oplismenus aemulus* (Basket Grass) and *Adiantum aethiopicum* (Common Maidenhair).

5. Lower Hunter Valley Dry Rainforest typically occurs on Carboniferous sediments of the Barrington footslopes along the northern rim of the Hunter Valley Floor, where it occupies gullies and steep hillslopes with south facing aspects. It is generally found at elevations less than 300 m ASL with a mean annual rainfall less than 900 mm (Peake 2006).
6. Areas of Lower Hunter Valley Dry Rainforest have been described by NSW NPWS (2000), Turner & Vernon (1994), DEC *in litt.* (2006) and Peake (2006). It falls broadly within *Alliance VI, Sub-Alliance 23 Ficus-Streblus-Dendrocnide-Cassine* in the rainforest classification of Floyd (1990). It shares characteristics with, but is not part of, the Western Sydney Dry Rainforest in the Sydney Basin Bioregion (NSW Scientific Committee 2000), currently listed as an Endangered Ecological Community under the NSW Threatened Species Conservation Act 1995.
7. Lower Hunter Valley Dry Rainforest has been recorded from the local government areas of Cessnock, Maitland and Port Stephens, and is also likely to occur or have occurred in Muswellbrook, Singleton, Upper Hunter and Dungog (within the Sydney Basin Bioregion and NSW North Coast Bioregion) (*sensu* Thackway and Cresswell 1995). It may occur elsewhere in the Bioregions.
8. Lower Hunter Valley Dry Rainforest has an extent of occurrence of less than 10,000 km². Within this extent the community has been reduced to small remnants (generally < 10 ha) by clearing. Within the eastern portion of the range of the community, NSW NPWS (2000) estimated that the geographic distribution has been reduced by nearly 70%. The decline over the remaining portion of the range is uncertain but likely to be up to 50% across the whole range. Lower Hunter Valley Dry Rainforest is not known to occur in any conservation reserves. Remnants are mostly located on private property.
9. Threats to Lower Hunter Valley Dry Rainforest include clearing and track building, frequent fire, trampling and grazing by cattle and weed invasion. The community is also vulnerable to stochastic events due to its fragmentation and small size of remnant patches. These threats are intensified by the absence of a forest buffer on forest margins (Turner and Vernon 1994). Invasion by the thicket-forming shrub *Lantana* (*Lantana camara*) has been demonstrated to increase following disturbances associated with fire or grazing (Gentle and Duggin 1997a). *Lantana* (*Lantana camara*) occurs in and around many stands and poses a threat through structural alteration, invasion and allelopathic suppression of rainforest seedlings (Gentle and Duggin 1997b). African Olive (*Olea europea* subsp. *cuspidata*) also poses a significant threat through invasion (Peake 2006). 'Anthropogenic climate change', 'Clearing of native vegetation', 'Invasion and establishment of exotic vines and scramblers' and 'Invasion, establishment and spread of *Lantana* (*Lantana camara* L. *sens. lat.*)' are listed as Key Threatening Processes under the NSW Threatened Species Conservation Act 1995.
10. Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions is not eligible to be listed as an endangered or critically endangered ecological community.
11. Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions is eligible to be listed as a vulnerable ecological community as, in the opinion of the Scientific Committee, it is facing a high risk of extinction in New South Wales in the medium-term future, as determined in accordance with the following criteria as prescribed by the Threatened Species Conservation Regulation 2002.

Clause 25

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (c) a moderate reduction in geographic distribution.

Clause 26

The ecological community's geographic distribution is estimated or inferred to be:

- (c) moderately restricted,

and the nature of its distribution makes it likely that the action of a threatening process could cause it to decline or degrade in extent or ecological function over a time span appropriate to the life cycle and habitat characteristics of the ecological community's component species.

Clause 27

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (c) a moderate reduction in ecological function,
as indicated by any of the following:
- (f) disruption of ecological processes
 - (g) invasion and establishment of exotic species
 - (h) degradation of habitat
 - (i) fragmentation of habitat.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2008 as indicated in the determination

References:

- Floyd AG (1990) *Australian rainforests in New South Wales Vol 2* Surrey Beatty & Sons, NSW.
- Gentle CB, Duggin JA (1997a) *Lantana camara* L. invasions in dry rainforest-open forest ecotones: the role of disturbances associated with fire and grazing. *Australian Journal of Ecology* **22**, 298-306.
- Gentle CB, Duggin JA (1997b) Allelopathy as a competitive strategy in persistent thickets of *Lantana camara* L. in three Australian forest communities. *Plant Ecology* **132**, 85-85.
- NSW National Parks & Wildlife Service (2000) *Vegetation survey and mapping – Lower Hunter and Central Coast Region*. Report prepared for the Lower Hunter and Central Coast Regional Environment management Strategy. Version 1.1.
- NSW Scientific Committee (2000) Final Determination of Western Sydney Dry Rainforest in the Sydney Basin Bioregion.
- Peake TC (2006) *The Vegetation of the Central Hunter Valley, New South Wales*. A report on the findings of the Hunter Remnant Vegetation Project. Hunter- Central Rivers Catchment Authority, Paterson.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserve System Cooperative Program. (Version 4.0 Australian Nature Conservation Agency: Canberra).
- Turner JC, Vernon SL (1994) Rainforest stands between Barrington Tops and the Hunter River, New South Wales. *Cunninghamia* **3**, 465-514.

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the *Melaleuca armillaris* Tall Shrubland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the *Melaleuca armillaris* Tall Shrubland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 6431 to 6434 in the *NSW Government Gazette* No. 133 dated 23 August 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. *Melaleuca armillaris* Tall Shrubland is the name given to the ecological community found on outcrops of volcanic soils on dry rocky ridges in the Illawarra area (within the Sydney Basin Bioregion *sensu* Thackway and Cresswell 1995) and is characterised by the following assemblage of species:

<i>Acacia mearnsii</i>	<i>Alphitonia excelsa</i>
<i>Bracteantha bracteata</i>	<i>Calandrinia pickeringii</i>
<i>Cheilanthes distans</i>	<i>Cheilanthes sieberi</i>
<i>Commelina cyanea</i>	<i>Commersonia fraseri</i>
<i>Crassula sieberiana</i>	<i>Dodonaea viscosa</i> subsp. <i>angustifolia</i>
<i>Hibiscus heterophyllus</i>	<i>Melaleuca armillaris</i>
<i>Plectranthus graveolens</i>	<i>Prostanthera linearis</i>
<i>Zieria granulata</i>	

2. The total species list of the community is considerably larger than that given in 1 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 1 may be present. At any one time, some species may only be present as seeds in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site, recent rainfall or drought conditions and by its disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency. The community includes a diverse fauna, both vertebrate and invertebrate, but it is poorly known. The threatened species *Zieria granulata* is closely associated with *Melaleuca armillaris* Tall Shrubland (Mills & Assoc 2000).
3. *Melaleuca armillaris* Tall Shrubland may be up to about 5 m tall and is dominated by the large Paperbark shrub *Melaleuca armillaris*. It occurs in sites away from the coast on very dry rocky ridges, at Dunmore and in Jamberoo Valley on volcanic soils overlying latite, and in small patches near Killalea. Rock outcrops are common within the Community. Because the soils on which it grows are shallow and are unable to retain enough moisture, the shrubs may die back during drought. (Dense stands of *M. armillaris* on coastal headlands are not included within this ecological community).
4. *Melaleuca armillaris* Tall Shrubland has been recorded from the local government areas of Shellharbour City, and Kiama Municipality (within the Sydney Basin Bioregion) and may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
5. Small stands of *Melaleuca armillaris* Tall Shrubland occur in Killalea State Park.
6. Many areas of *Melaleuca armillaris* Tall Shrubland have been cleared. Most remnants are small and fragmented and their longterm viability is threatened. Threats include further clearing, grazing, including by rabbits, quarrying, inappropriate fire regimes, weed invasion, rubbish dumping, housing and hobby farm developments.
7. In view of the above the Scientific Committee is of the opinion that *Melaleuca armillaris* Tall Shrubland in the Sydney Basin Bioregion is likely to become extinct in nature in NSW unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

Kevin Mills & Associates (2000) Nature Conservation Study Rural lands study area City of Shellharbour (prepared for Shellharbour City Council).

Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published in the *NSW Government Gazette* No. 201 dated 1 November 2002 (pages 9359 and 9360) and in the *NSW Government Gazette* No. 210 dated 8 November 2002 (pages 9561 to 9562). Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Milton Ulladulla Subtropical Rainforest is the name given to the ecological community that occurs on basaltic soils (on Milton Monzonite), deep alluvium and soils of the Conjola Formation enriched by monzonite in the Milton Ulladulla area (within the Sydney Basin Bioregion *sensu* Thackway and Cresswell 1995) and is characterised by the following assemblage of species

<i>Acmena smithii</i>	<i>Adiantum flabellifolium</i>
<i>Alectryon subcinereus</i>	<i>Aphanopetalum resinum</i>
<i>Arthropteris tenella</i>	<i>Baloghia inophylla</i>
<i>Breynia oblongifolia</i>	<i>Cissus antarctica</i>
<i>Cissus hypoglauca</i>	<i>Citriobatus pauciflorus</i>
<i>Clayoxylon australe</i>	<i>Dendrocnide excelsa</i>
<i>Diospyros australis</i>	<i>Doodia aspera</i>
<i>Eustrephus latifolius</i>	<i>Ficus</i> spp.
<i>Geitonoplesium cymosum</i>	<i>Gymnostachys anceps</i>
<i>Legnephora moorei</i>	<i>Malaisia scandens</i>
<i>Marsdenia rostrata</i>	<i>Notelaea venosa</i>
<i>Oplismenus imbecillus</i>	<i>Pandorea pandorana</i>
<i>Pellaea falcata</i>	<i>Pittosporum undulatum</i>
<i>Plectranthus parviflorus</i>	<i>Sarcopetalum harveyanum</i>
<i>Smilax australis</i>	<i>Stephania japonica</i>
<i>Streblus brunonianus</i>	<i>Syzygium australe</i>
<i>Toona ciliata</i>	

2. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in very small quantity. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species, the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
3. The structure of Milton Ulladulla Subtropical Rainforest is dense forest up to 15 m high with an emergent tree layer to over 25 m often present. Characteristic tree species in the Milton Ulladulla Subtropical Rainforest include *Clayoxylon australe*, *Acmena smithii*, *Dendrocnide excelsa*, *Ficus* species, *Syzygium australe*, *Streblus brunonianus*, *Baloghia inophylla* and *Toona ciliata* (K. Mills pers. comm.). There is generally a sparse shrub layer and ground cover with a diverse mix of lianas, vines, and ferns or if disturbed there are components of indigenous native species sufficient to facilitate the restoration of the characteristic habitat.
4. The name Milton Ulladulla Subtropical Rainforest is an appropriate description for rainforest in the Milton-Ulladulla area. In a broader context the rainforests in the area fall into both subtropical (suballiance 14) and dry rainforest (suballiance 23) in Floyd's 1990 classification (Floyd, A.G. 1990. *Australian rainforests in New South Wales* Vols. 1 and 2. Surrey Beatty and Sons, Chipping Norton).
5. Milton Ulladulla Subtropical Rainforest provides habitat for several threatened species including the Powerful Owl, *Ninox strenua* and the Grey-headed Flying Fox, *Pteropus poliocephalus*. The community contains many "subtropical" rainforest plant species that are found no further to the south, and are rare on the South Coast (K. Mills pers. comm.).
6. Milton Ulladulla Subtropical Rainforest has been recorded from the local government area of Shoalhaven (within the Sydney Basin Bioregion) and may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
7. Milton Ulladulla Subtropical Rainforest occurs in one conservation reserve, Yatteyattah Nature Reserve.

8. Large areas of Milton Ulladulla Subtropical Rainforest have been cleared leaving remnants that are small and fragmented and surrounded by agricultural land. Remnant rainforest in this region has been found to suffer from edge effects, associated with grazing, light intrusion, wind and weed invasion. Other threats include urban developments, cutting of trees for firewood, fires, rubbish dumping, road widening and utility easements.
9. In view of the above the Scientific Committee is of the opinion that Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion is likely to become extinct in nature in NSW unless circumstances and factors threatening its survival or evolutionary development cease.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Moist Shale Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Moist Shale Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 2367 to 2371 in the *NSW Government Gazette* No. 75 dated 19 April 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Moist Shale Woodland in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in paragraph 2. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Moist Shale Woodland is characterised by the following assemblage of species:

<i>Adiantum aethiopicum</i>	<i>Arthropodium milleflorum</i>
<i>Brachychiton populneus</i>	<i>Breynia oblongifolia</i>
<i>Brunoniella australis</i>	<i>Bursaria spinosa</i>
<i>Carex inversa</i>	<i>Cayratia clematidea</i>
<i>Cheilanthes distans</i>	<i>Clematis glycinoides</i> var. <i>glycinoides</i>
<i>Clerodendrum tomentosum</i>	<i>Commelina cyanea</i>
<i>Cyperus gracilis</i>	<i>Desmodium brachypodum</i>
<i>Desmodium varians</i>	<i>Dichondra repens</i>
<i>Echinopogon ovatus</i>	<i>Einadia hastata</i>
<i>Eucalyptus moluccana</i>	<i>Eucalyptus tereticornis</i>
<i>Galium propinquum</i>	<i>Glycine clandestina</i>
<i>Microlaena stipoides</i> var. <i>stipoides</i>	<i>Myoporum montanum</i>
<i>Nyssanthes diffusa</i>	<i>Olearia viscidula</i>
<i>Oplismenus aemulus</i>	<i>Oxalis perennans</i>
<i>Plantago debilis</i>	<i>Plectranthus parviflorus</i>
<i>Poa sieberiana</i> var. <i>sieberiana</i>	<i>Rumex brownii</i>
<i>Senecio quadridentatus</i>	<i>Sigesbeckia orientalis</i> subsp. <i>orientalis</i>
<i>Solanum prinophyllum</i>	<i>Wahlenbergia gracilis</i>

3. The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes invertebrates, many of which are poorly known, as well as vertebrates. In any particular site not all of the assemblage listed above may be present. At any one time, some species may only be present as seeds in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to soil or canopy trees and shrubs for example. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
4. The canopy of the Moist Shale Woodland generally has trees of *Eucalyptus tereticornis* and *Eucalyptus moluccana*, with *Eucalyptus crebra* and *Corymbia maculata* occurring occasionally. There is often a small tree stratum including species such as *Acacia implexa* or *Acacia parramattensis* subsp. *parramattensis*. A sparse shrub stratum is usually present, and commonly includes *Breynia oblongifolia*, *Clerodendrum tomentosum*, *Bursaria spinosa* and *Olearia viscidula*. Ground layer species include *Desmodium varians*, *Cyperus gracilis*, *Galium propinquum*, *Cayratia clematidea*, *Glycine clandestina*, *Brunoniella australis*, *Desmodium brachypodum*, *Dichondra repens*, *Microlaena stipoides* var. *stipoides*, *Sigesbeckia orientalis* subsp. *orientalis* and *Solanum prinophyllum*.
5. Moist Shale Woodland usually occurs on soils derived from Wianamatta Shale on higher country in the southern half of the Cumberland Plain. Moist Shale Woodland is found in very similar environments to Western Sydney Dry Rainforest, but tends to occupy upper slopes while Western Sydney Dry Rainforest is often found on lower slopes and in gullies.
6. Moist Shale Woodland is described in NSW NPWS (2000a&b) which lists diagnostic plant species for the community. These species provide a guide to identification of the community, but care should be taken in the application and interpretation of diagnostic plant species because of sampling limitations; the reduction in species diversity in degraded sites; and the fact that some species may only be present at a site at some times as a soil seedbank or as dormant bud/tubers.
7. Part of the Moist Shale Woodland is or has been known to occur in the Camden, Campbelltown, Fairfield, Holroyd, Liverpool, Penrith, and Wollondilly Local Government Areas, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

8. Disturbed Moist Shale Woodland remnants are considered to form part of the community including remnants where the vegetation would respond to assisted natural regeneration such as where the natural soil and associated seedbank is still at least partially intact.
9. Moist Shale Woodland occurs in Mulgoa Nature Reserve and Western Sydney Regional Park. The area estimated in these reserves is less than 1% of the original distribution.
10. Moist Shale Woodland has been extensively cleared for agriculture and urban development. NSW National Parks & Wildlife Service (2000a) estimate that about 480 ha or about 20% of the original distribution remains. Most of the remaining community has been disturbed, by tracks and clearing, weed invasion and soil disturbance. Continuing threats include invasion of exotic species, illegal dumping, fragmentation and clearing for urban, rural residential, rural and recreational development.
11. In view of the originally restricted distribution of this community, its inadequate representation within conservation reserves, the extensive disturbance and weed invasion that has occurred to date, and the ongoing development and use threats, the Scientific Committee is of the opinion that Moist Shale Woodland in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- NSW NPWS (2000a). *Native vegetation maps of the Cumberland Plain, Western Sydney – Interpretation guidelines*. NSW National Parks and Wildlife Service, 2000.
- NSW NPWS (2000b). *The native vegetation of the Cumberland Plan, Western Sydney Technical report*. NSW National Parks and Wildlife Service, 2000.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Mount Gibraltar Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Mount Gibraltar Forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 1272 to 1276 in the *NSW Government Gazette* No. 54 dated 16 March 2001. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Mount Gibraltar Forest in the Sydney Basin Bioregion is the name given to the plant community characterised by the species assemblage listed in 2 below. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995). The community is described in Fisher, Ryan & Lembit (1995).

2. Mount Gibraltar Forest is characterised by the following assemblage:

<i>Acacia melanoxyton</i>	<i>Adiantum aethiopicum</i>
<i>Blechnum cartilagineum</i>	<i>Cyathea australis</i>
<i>Cymbopogon refractus</i>	<i>Dianella caerulea</i>
<i>Dichondra repens</i>	<i>Doodia aspera</i>
<i>Eucalyptus fastigata</i>	<i>Eucalyptus piperita</i>
<i>Eucalyptus radiata</i>	<i>Eucalyptus smithii</i>
<i>Eucalyptus viminalis</i>	<i>Eustrephus latifolius</i>
<i>Exocarpos cupressiformis</i>	<i>Hedycarya angustifolia</i>
<i>Leptospermum brevipes</i>	<i>Leptospermum polygalifolium</i>
<i>Leucopogon lanceolatus</i>	<i>Lomandra longifolia</i>
<i>Melaleuca hypericifolia</i>	<i>Notelaea venosa</i>
<i>Oreomyrrhis eriopoda</i>	<i>Pittosporum undulatum</i>
<i>Polyscias sambucifolia</i>	<i>Pteridium esculentum</i>
<i>Senecio linearis</i>	<i>Stypandra glauca</i>
<i>Themeda australis</i>	<i>Tylophora barbata</i>

- 3 The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes invertebrates, many of which are poorly known, as well as vertebrates. In any particular site not all of the assemblage listed above may be present. At any one time, seeds of some plant species may only be present in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to soils or canopy trees and shrubs, for example. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
- 4 Mount Gibraltar Forest includes vegetation ranging from open-forest to woodland and scrub depending on aspect, soil conditions and previous clearing and disturbance. Typical trees include *Eucalyptus radiata*, *Eucalyptus piperita* and *Eucalyptus smithii*, on the upper slopes, and *Eucalyptus radiata*, *Eucalyptus piperita*, *Eucalyptus fastigata* and *Eucalyptus viminalis* on the deeper soils on the southern side.
- 5 Understorey species in the open-forest are predominantly herbaceous and grassy and include *Stypandra glauca*, *Dianella caerulea*, *Dichondra repens*, *Themeda australis*, *Blechnum cartilagineum*, *Adiantum aethiopicum*, *Tylophora barbata*, *Oreomyrrhis eriopoda*, *Cymbopogon refractus*, *Senecio linearis*, *Polyscias sambucifolia*, *Exocarpos cupressiformis*, *Leucopogon lanceolatus* and *Lomandra longifolia*. The tall forest is dominated by ferns such as *Blechnum cartilagineum*, *Doodia aspera*, *Pteridium esculentum*, and twiners such as *Eustrephus latifolius* and *Tylophora barbata*. There may be small patches of rainforest species such as *Acacia melanoxyton*, *Hedycarya angustifolia*, *Notelaea venosa*, *Pittosporum undulatum* and *Cyathea australis*. Scrub with *Melaleuca hypericifolia*, *Leptospermum brevipes* and *Leptospermum polygalifolium* may occur on exfoliating rock on exposed sites.
- 6 Mount Gibraltar Forest is found on clay soils derived from a microsyenite volcanic intrusion associated with Mount Gibraltar near Bowral, but may also have occurred on nearby mountains such as Mount Jellore, Mount Flora, Mount Misery and Cockatoo Hill depending on the extent of microsyenite. It is referred to in Fisher, Ryan & Lembit (1995)
- 7 Mount Gibraltar Forest is or has been known to occur in the Wingecarribee Local Government Area, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
- 8 Disturbed Mount Gibraltar Forest remnants are considered to form part of the community including where the vegetation would respond to assisted natural regeneration, such as where the natural soil and associated seedbank is still at least partially intact.

- 9 Mount Gibraltar Forest has been cleared for agriculture and rural development. Remnants are mostly small isolated pockets.
- 10 Mount Gibraltar Forest has not been reported from any NPWS reserves.
- 11 Much of the remaining area of Mount Gibraltar Forest is largely isolated from other areas of bushland. Ongoing threats to the remnants include exotic weed invasion such as *Hedera*, *Lonicera*, *Ilex*, *Berberis*, *Pyracantha* and *Genista*, pressure from adjacent urban development (including dogs, cats, rubbish dumping, noise, trampling and vehicles), inappropriate fire regimes and disturbances associated with communication tower infrastructure (including clearing, movement of machinery, weed introduction, dumping of rubbish).
- 12 In view of the restricted distribution of this community, the ongoing threats to the remnants and its inadequate representation within conservation reserves, the Scientific Committee is of the opinion that Mount Gibraltar Forest in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2001 as indicated in the determination

References:

- Fisher, M., Ryan, K. & Lembit, R. (1995) The natural vegetation of the Burragorang 1:100 000 map sheet. *Cunninghamia* 4(2): 143-215.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published in the *NSW Government Gazette* No. 90 dated 15 July 2005 (pages 3740 to 3744) and in the *NSW Government Gazette* No. 92 dated 22 July 2005 (pages 3798 and 3806 to 3810). Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion is the name given to the ecological community dominated by shrubs and sedges that occurs on sites with impeded drainage in low slope headwater valleys on the Newnes Plateau in the upper Blue Mountains.

2. Newnes Plateau Shrub Swamp is characterised by the following assemblage of species:

<i>Baeckea linifolia</i>	<i>Baeckea utilis</i>
<i>Baloskion australe</i>	<i>Bauera rubioides</i>
<i>Blechnum nudum</i>	<i>Boronia deanei</i>
<i>Callistemon citrinus</i>	<i>Callistemon linearis</i>
<i>Celmisia longifolia</i>	<i>Centella asiatica</i>
<i>Daviesia latifolia</i>	<i>Deyeuxia gunniana</i>
<i>Dillwynia stipulifera</i>	<i>Drosera spathulata</i>
<i>Eleocharis sphacelata</i>	<i>Empodisma minus</i>
<i>Epacris microphylla</i>	<i>Epacris paludosa</i>
<i>Gahnia sieberiana</i>	<i>Geranium neglectum</i>
<i>Gleichenia dicarpa</i>	<i>Gonocarpus micranthus</i>
<i>Goodenia bellidifolia</i>	<i>Grevillea acanthifolia</i> subsp. <i>acanthifolia</i>
<i>Gymnoschoenus sphaerocephalus</i>	<i>Hydrocotyle peduncularis</i>
<i>Juncus continuus</i>	<i>Lepidosperma limicola</i>
<i>Leptospermum continentale</i>	<i>Leptospermum grandifolium</i>
<i>Leptospermum myrtifolium</i>	<i>Leptospermum obovatum</i>
<i>Lepyrodia anarthria</i>	<i>Lepyrodia scariosa</i>
<i>Lomandra longifolia</i>	<i>Luzula ovata</i>
<i>Notochloe microdon</i>	<i>Olearia quercifolia</i>
<i>Patersonia fragilis</i>	<i>Sporadanthus gracilis</i>
<i>Sprengelia incarnata</i>	<i>Stylidium graminifolium</i>
<i>Todea barbara</i>	<i>Utricularia dichotoma</i>
<i>Velleia montana</i>	<i>Viola sieberiana</i>
<i>Xanthosia dissecta</i>	<i>Xyris gracilis</i>
<i>Xyris ustulata</i>	

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species; the community also includes micro-organisms, fungi, and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
4. Newnes Plateau Shrub Swamp occurs in narrow, elongated swamps formed in low-slope headwaters of the Newnes Plateau, in predominantly sandstone catchments of Triassic Narrabeen Group geology, at approximately 900-1200 m elevation on deep sandy organic sediments that are permanently to periodically waterlogged.
5. Newnes Plateau Shrub Swamp is characteristically dominated by shrubs, with a variable cover of sedges. Shrubs have a dense to open cover, and include *Baeckea linifolia*, *Grevillea acanthifolia* subsp. *acanthifolia*, *Epacris paludosa* and *Leptospermum* species. The cover of sedges varies inversely with shrub cover. Common sedges include *Baloskion australe*, *Empodisma minus*, *Lepyrodia scariosa* and *Lepidosperma limicola*, while herbs include *Patersonia fragilis* and *Xanthosia dissecta*. *Gleichenia dicarpa* and *Gymnoschoenus sphaerocephalus* may occur around drainage lines, while *Lomandra longifolia* may be prominent around the swamp margins. Floristic composition varies locally in relation to soil moisture gradients within the swamps (Keith and Benson 1988; Benson and Keith 1990).

6. With decreasing altitude, Newnes Plateau Shrub Swamp grades into Blue Mountains sedge swamp communities (Keith and Benson 1988). The transition occurs around Bell and Clarence at approximately 850-950 m above sea level. Blue Mountains sedge swamps typically have less cover of shrubs and a greater cover of sedges (particularly *Gymnoschoenus sphaerocephalus*) than Newnes Plateau Shrub Swamp. Other salient features that distinguish Newnes Plateau Shrub Swamp from Blue Mountains sedge swamps include the presence of species in the former such as *Dillwynia stipulifera* and *Boronia deanei*, the absence from the former of a range of shrub species that are not found at higher altitudes, and the occurrence of the former on subdued terrain, compared with the steep seepage slopes and headwater valleys that typify swamp habitats at lower elevations in the Blue Mountains.
7. Newnes Plateau Shrub Swamp may share a number of characteristics with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps Bioregions, also listed as an Endangered Ecological Community under the Threatened Species Conservation Act (1995). However, this latter community has a lower diversity of sclerophyllous shrub species, a greater diversity of soft-leaved sedges, grasses and herbs, and typically occurs on more fertile substrates than Newnes Plateau Shrub Swamp.
8. Newnes Plateau Shrub Swamp provides habitat for threatened species including *Boronia deanei*, *Petalura gigantea*, the Giant Dragonfly, and *Eulamprus leuraensis*, the Blue Mountains Water Skink. The endangered shrub, *Persoonia hindii*, is also associated with the margins of the swamps.
9. Newnes Plateau Shrub Swamp has been recorded from the local government areas of Lithgow and Blue Mountains City (within the Sydney Basin Bioregion) but may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995). Vegetation mapping of the entire range of Newnes Plateau Shrub Swamp indicates that it covers less than 650 ha in total (Keith and Benson 1988; Benson and Keith 1990). The largest swamp covers about 40 ha, and the average swamp size is less than 6 ha. Approximately 160 ha of Newnes Plateau Shrub Swamp occurs within Blue Mountains and Wollemi national parks, with the remainder on state forest and freehold land. Approximately 120 ha of the community, including the largest swamp, is adjacent to pine plantations or other cleared land.
10. Biogeographically, Newnes Plateau Shrub Swamp is related to other upland swamps in the Sydney Basin (e.g. Keith and Myerscough 1993). It represents the highest altitude expression of upland swamps on sandstone in mainland Australia, and is transitional between the 'Coastal Heath Swamps' and 'Montane Bogs and Fens' vegetation classes of Keith (2004). All of these swamps play important hydrological roles, acting as water filters, releasing water slowly to downstream watercourses, thereby regulating water quality and stream flows (Young and Young 1988).
11. A number of the water catchments containing Newnes Plateau Shrub Swamp contain transport corridors, pine plantations, sand quarries, coal mines or small-scale rural holdings. In some cases, these developments are located immediately adjacent to the swamps or with narrow buffer strips. The community is threatened by small-scale clearing, fragmentation, erosion and sedimentation all associated with roadworks, quarrying and periodic timber harvesting from adjacent plantations. Clearing of native vegetation is listed as a Key Threatening Process under the Threatened Species Conservation Act (1995).
12. Changes to drainage and moisture conditions in some swamps, including the largest example of the community, are caused by damming of swamp watercourses; roading across the swamps; sedimentation and erosion associated with roadways, quarries, mines and plantation harvesting within swamp catchments; and disposal of waste water from underground coal mines. These changes pose threats to the persistence and integrity of Newnes Plateau Shrub Swamp, given the crucial roles of water regimes in the composition, structure and function of the community. Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands is listed as a Key Threatening Process under the Threatened Species Conservation Act (1995).
13. The Newnes plateau is underlain by extractable coal seams at varying depths, with underground longwall mining occurring or proposed to occur, beneath the majority of the swamps. Subsidence of the land surface, and associated fracturing of bedrock between the coal seam and the surface, occurs after longwall mining, and this may change the hydrology of catchments and swamps they contain. Specifically, the conversion of perched water table flows into subsurface flows through mine-related voids may significantly alter the water balance of upland swamps (Young and Wray 2000). Changes to surface morphology within or near the swamps as a result of mine subsidence may also create nick points which become the focus of severe and rapid erosion (Young 1982). These changes pose threats to the persistence and integrity of, the community. Alteration of habitat following subsidence due to longwall mining is listed as a Key Threatening Process under the Threatened Species Conservation Act (1995).
14. Invasion of exotic species, including species of *Pinus*, and changes to fire regimes may pose threats to Newnes Plateau Shrub Swamp in future if any of the above processes result in physical displacement of vegetation, increased influx of sediments and/or nutrients or significant drying of the swamps.
15. In view of the above the Scientific Committee is of the opinion that Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival cease to operate or it might already be extinct.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2005 as indicated in the determination

References:

- Benson DH, Keith DA (1990) The natural vegetation of the Wallerawang 1:100 000 map sheet. *Cunninghamia* **2**, 305-335.
- Keith DA, Benson DH (1988) The natural vegetation of the Katoomba 1:100 000 map sheet. *Cunninghamia* **2**, 107-143.
- Keith DA, Myerscough PJ (1993) Floristics and soil relations of upland swamp vegetation near Sydney. *Australian Journal of Ecology* **18**, 325-344.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)
- Young ARM (1982) *Upland swamps (dells) on the Woronora plateau, N.S.W.* PhD thesis, University of Wollongong.
- Young RW, Wray RAL (2000) The geomorphology of sandstones in the Sydney Region. In McNally GH and Franklin BJ eds *Sandstone City – Sydney’s Dimension Stone and other Sandstone Geomaterials*. Proceedings of a symposium held on 7th July 2000, 15th Australian Geological Convention, University of Technology Sydney. Monograph No. 5, Geological Society of Australia, Springwood, NSW. Pp 55-73.
- Young RW, Young ARM (1982) ‘Altogether barren, peculiarly romantic’: the sandstone lands around Sydney. *Australian Geographer* **19**, 9-25.

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 6422 to 6425 in the *NSW Government Gazette* No. 33 dated 23 August 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Quorrobolong Scribbly Gum Woodland is the name given to the ecological community occurring on a residual sand deposit overlying the Permian clay sediments in the Hunter Valley. The Ecological Community is characterised by the species assemblage listed below.

<i>Acacia parvipinnula</i>	<i>Allocasuarina littoralis</i>
<i>Angophora costata</i>	<i>Aristida vagans</i>
<i>Banksia spinulosa</i> var. <i>collina</i>	<i>Billardiera scandens</i>
<i>Breynia oblongifolia</i>	<i>Callistemon pinifolius</i>
<i>Comesperma ericinum</i>	<i>Correa reflexa</i> var. <i>reflexa</i>
<i>Cryptostylis subulata</i>	<i>Dampiera stricta</i>
<i>Daviesia ulicifolia</i>	<i>Dillwynia retorta</i>
<i>Entolasia stricta</i>	<i>Eragrostis brownii</i>
<i>Eucalyptus piperita</i>	<i>Eucalyptus racemosa</i>
<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>	<i>Eucalyptus punctata</i>
<i>Exocarpos cupressiformis</i>	<i>Gahnia aspera</i>
<i>Glycine clandestina</i>	<i>Gompholobium minus</i>
<i>Goodenia heterophylla</i> subsp. <i>heterophylla</i>	<i>Goodenia rotundifolia</i>
<i>Hakea sericea</i>	<i>Hardenbergia violacea</i>
<i>Hibbertia diffusa</i>	<i>Imperata cylindrica</i> var. <i>major</i>
<i>Jacksonia scoparia</i>	<i>Laxmannia compacta</i>
<i>Leptospermum trinervium</i>	<i>Leptospermum polygalifolium</i> subsp. <i>cismontanum</i>
<i>Leucopogon juniperinus</i>	<i>Lomandra cylindrica</i>
<i>Lomandra glauca</i>	<i>Lomandra multiflora</i> subsp. <i>multiflora</i>
<i>Lomandra obliqua</i>	<i>Lomatia silaifolia</i>
<i>Melaleuca nodosa</i>	<i>Melaleuca sieberi</i>
<i>Microlaena stipoides</i> var. <i>stipoides</i>	<i>Notelaea venosa</i>
<i>Panicum simile</i>	<i>Paspalidium distans</i>
<i>Persoonia linearis</i>	<i>Phyllanthus hirtellus</i>
<i>Platysace ericoides</i>	<i>Polyscias sambuccifolia</i>
<i>Pomax umbellata</i>	<i>Pratia purpurascens</i>
<i>Pteridium esculentum</i>	<i>Syncarpia glomulifera</i> subsp. <i>glomulifera</i>
<i>Themeda australis</i>	<i>Xylomelum pyriforme</i>
<i>Zieria smithii</i> subsp. <i>smithii</i>	

2. The total flora species list for the community may be larger than that given above, with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed above may be present. At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed bank or as dormant structures such as bulbs, corms, rhizomes, rootstock or lignotubers. The community includes invertebrates, many of which are poorly known, as well as vertebrates; some invertebrate species may be restricted to sediments or canopy trees and shrubs. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire regime, e.g. fire frequency.
3. Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion is known from a small area between Quorrobolong and Mulbring in the Cessnock Local Government Area but may occur elsewhere. It occupies gentle slopes and rises on a residual sand deposit overlying the Permian clay sediments of the Hunter Valley floor. Bioregions are defined in Thackway and Cresswell (1995).
4. Quorrobolong Scribbly Gum Woodland differs in floristic composition from other woodland communities on sand deposits within the region in the presence and importance of *Eucalyptus racemosa* in the canopy and the presence of *Eucalyptus piperita*, *E. resinifera* and *Syncarpia glomulifera*. Quorrobolong Scribbly Gum Woodland Ecological Community was not described in NSW NPWS (2000) but is a distinct community differing from other communities described in that report.

5. The currently known extent of the Quorrobolong Scribbly Gum Woodland is about 70 ha; the pre-European extent is estimated as about 160 ha, a reflection of the limited area of the sand deposit on which it occurs.
6. No part of the Quorrobolong Scribbly Gum Woodland occurs within a conservation reserve. A small part, about 6 ha, is within the Bow Wow Creek Gorge site listed on the Register of the National Estate.
7. Threats to the Quorrobolong Scribbly Gum Woodland include the very limited extent of the community, exposing it to stochastic disturbance events, clearing, grazing, inappropriate fire regimes and the spread of weeds.
8. In view of the above the Scientific Committee is of the opinion that the Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- NSW NPWS (2000). Vegetation Survey and Mapping – Lower Hunter and Central Coast Region. Report prepared for the Lower Hunter and Central Coast Regional Environment Management Strategy, Version 1.1, April 2000. 178pp.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 3697 to 3701 in the *NSW Government Gazette* No. 97 dated 15 June 2001. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in 2 below. The community occurs on high nutrient soils in high rainfall areas of the Southern Highlands. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Robertson Basalt Tall Open-forest is characterised by the following assemblage:

<i>Acacia mearnsii</i> <i>Acronychia oblongifolia</i> <i>Australina pusilla</i> <i>Clematis aristata</i> <i>Desmodium varians</i> <i>Eucalyptus elata</i> <i>Eucalyptus radiata</i> <i>Eucalyptus viminalis</i> <i>Galium propinquum</i> <i>Geranium homeanum</i> <i>Hymenanthera dentata</i> <i>Marsdenia rostrata</i> <i>Notelaea venosa</i> <i>Parsonsia straminea</i> <i>Pimelea ligustrina</i> <i>Plantago debilis</i> <i>Polyscias sambucifolia</i> <i>Rubus parvifolius</i> <i>Senecio linearifolius</i> <i>Solanum aviculare</i> <i>Themeda australis</i> <i>Urtica incisa</i> <i>Viola hederacea</i>	<i>Acacia melanoxylon</i> <i>Aphanopetalum resinum</i> <i>Citriobatus pauciflorus</i> <i>Coprosma quadrifida</i> <i>Doryphora sassafras</i> <i>Eucalyptus fastigata</i> <i>Eucalyptus tereticornis</i> <i>Eustrephus latifolius</i> <i>Geitonoplesium cymosum</i> <i>Hedycarya angustifolia</i> <i>Lomandra longifolia</i> <i>Microlaena stipoides</i> <i>Pandorea pandorana</i> <i>Pellaea falcata</i> <i>Pittosporum undulatum</i> <i>Poa labillardieri</i> <i>Pteridium esculentum</i> <i>Rubus rosifolius</i> <i>Smilax australis</i> <i>Stellaria flaccida</i> <i>Tylophora barbata</i> <i>Veronica plebeia</i>
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3. The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes vertebrates and invertebrates, many of which are poorly known. Invertebrate species may be restricted to soils or canopy trees and shrubs. In any particular site not all of the assemblage listed above may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to soils or canopy trees and shrubs, for example. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
4. Robertson Basalt Tall Open-forest was predominantly of tall open-forest structure, though remnants may now be of open forest or woodland structure due to clearing and disturbance. Typical trees include *Eucalyptus fastigata*, *Eucalyptus viminalis*, *Eucalyptus elata* and *Eucalyptus radiata*.
5. Robertson Basalt Tall Open-forest is found on high fertility soils derived generally from Tertiary basalts (mainly the Robertson Basalt and Kangaroo Valley Basanite), on areas of high rainfall (1000-1600 mm per annum). It is referred to in Fisher, Ryan & Lembit (1995) and Kodela (1990).
6. Robertson Basalt Tall Open-forest is or has been known to occur in the Wingecarribee and Shoalhaven Local Government areas, but may occur elsewhere in the Sydney Basin Bioregion (*sensu* Thackway and Cresswell 1995). It has been reported from the Southern Highlands on the Robertson plateau and Cambewarra Range (Kodela, 1990, Kevin Mills pers. comm.).

- 7 Disturbed Robertson Basalt Tall Open-forest remnants are considered to form part of the community including where the vegetation would respond to assisted natural regeneration, such as where the natural soil and associated seedbank is still at least partially intact.
- 8 Robertson Basalt Tall Open-forest has been extensively cleared for agriculture and rural development. About 400ha or less than 15% of its original occurrence has been estimated to remain though this is mostly as small and isolated pockets.
- 9 Robertson Basalt Tall Open-forest has not been reported from any NPWS national parks or nature reserves.
- 10 Much of the remaining area of Robertson Basalt Tall Open-forest is highly fragmented with much of it occurring on private land. Threatening processes include clearing, logging, burning, introduced species and grazing.
- 11 In view of the originally restricted distribution of this community, its inadequate representation within conservation reserves, the extensive disturbance and weed invasion that has occurred, and the threats from ongoing development, the Scientific Committee is of the opinion that Robertson Basalt Tall Open-forest in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2001 as indicated in the determination

References:

- Fisher, M., Ryan, K. & Lembit, R. (1995) The natural vegetation of the Burratorang 1:100 000 map sheet. *Cunninghamia* 4(2): 143-215.
- Kodala, P.G. (1990) Modern pollen rain from forest communities. *Australian Journal of Botany* 38:1-24.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Robertson Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Robertson Rainforest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 3702 to 3706 in the NSW Government Gazette No. 97 dated 15 June 2001. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Robertson Rainforest in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in 2 below. The community occurs on high nutrient soils in high rainfall areas of the Southern Highlands. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

2. Robertson Rainforest is characterised by the following assemblage:

<i>Acacia melanoxydon</i>	<i>Acmena smithii</i>
<i>Acronychia oblongifolia</i>	<i>Alectryon subcinereus</i>
<i>Alphitonia excelsa</i>	<i>Aphanopetalum resinolum</i>
<i>Arthropteris tenella</i>	<i>Asplenium attenuatum</i>
<i>Asplenium australasicum</i>	<i>Asplenium flabellifolium</i>
<i>Asplenium flaccidum</i>	<i>Australina pusilla</i>
<i>Austrocynoglossum latifolium</i>	<i>Blechnum nudum</i>
<i>Blechnum patersonii</i>	<i>Blechnum wattsii</i>
<i>Carex appressa</i>	<i>Cassinia trinerva</i>
<i>Celastrus australis</i>	<i>Ceratopetalum apetalum</i>
<i>Cissus hypoglauca</i>	<i>Citriobatus pauciflorus</i>
<i>Clematis aristata</i>	<i>Clematis glycinoides</i>
<i>Coprosma quadrifida</i>	<i>Cryptocarya glaucescens</i>
<i>Cyathea australis</i>	<i>Cyathea leichhardtiana</i>
<i>Dendrobium pugioniforme</i>	<i>Dennstaedtia davallioides</i>
<i>Dicksonia antarctica</i>	<i>Diospyros australis</i>
<i>Diplazium australe</i>	<i>Doodia aspera</i>
<i>Doryphora sassafras</i>	<i>Elaeocarpus holopetalus</i>
<i>Elaeocarpus kirtonii</i>	<i>Elaeocarpus reticulatus</i>
<i>Elatostema reticulatum</i>	<i>Eucalyptus fastigata</i>
<i>Eucryphia moorei</i>	<i>Eustrephus latifolius</i>
<i>Ficus coronata</i>	<i>Fieldia australis</i>
<i>Galium propinquum</i>	<i>Geitonoplesium cymosum</i>
<i>Geranium homeanum</i>	<i>Grammitis billardieri</i>
<i>Guioa semiglaucula</i>	<i>Gymnostachys anceps</i>
<i>Hedycarya angustifolia</i>	<i>Helicia glabrifolia</i>
<i>Hibbertia scandens</i>	<i>Histiopteris incisa</i>
<i>Hydrocotyle laxiflora</i>	<i>Hymenanthera dentata</i>
<i>Hymenophyllum cupressiforme</i>	<i>Hymenophyllum flabellatum</i>
<i>Lastreopsis acuminata</i>	<i>Lastreopsis decomposita</i>
<i>Lastreopsis microsora</i>	<i>Livistona australis</i>
<i>Lomandra longifolia</i>	<i>Marsdenia rostrata</i>
<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	<i>Microsorium scandens</i>
<i>Morinda jasminoides</i>	<i>Muellerina eucalyptoides</i>
<i>Notelaea venosa</i>	<i>Olearia argophylla</i>
<i>Ozothamnus diosmifolius</i>	<i>Ozothamnus ferrugineus</i>
<i>Palmeria scandens</i>	<i>Pandorea pandorana</i>
<i>Parsonsia brownii</i>	<i>Parsonsia straminea</i>
<i>Pellaea falcata</i>	<i>Pennantia cunninghamii</i>
<i>Pimelea ligustrina</i>	<i>Pittosporum revolutum</i>
<i>Pittosporum undulatum</i>	<i>Plantago debilis</i>
<i>Plectorrhiza tridentata</i>	<i>Polyosma cunninghamii</i>
<i>Polyphlebium venosa</i>	<i>Polyscias murrayi</i>
<i>Polyscias sambucifolia</i>	<i>Polystichum proliferum</i>
<i>Prostanthera lasianthos</i>	<i>Pteris umbrosa</i>
<i>Pyrrhosia rupestris</i>	<i>Quintinia sieberi</i>
<i>Ranunculus lappaceus</i>	<i>Ranunculus plebeius</i>
<i>Rapanea howittiana</i>	<i>Rubus Moluccanus</i> var. <i>trilobus</i>

Ripogonum album
Rubus rosifolius
Sarcochilus falcatus
Schizomeria ovata
Solanum aviculare
Stellaria flaccida
Sticherus lobatus
Synoum glandulosum
Tristaniopsis collina
Urtica incisa
Viola hederacea

Rubus nebulosus
Sambucus australasica
Sarcopetalum harveyanum
Smilax australis
Solanum pungetium
Stenocarpus salignus
Symplocos thwaitesii
Tasmannia insipida
Tylophora barbata
Veronica plebeia

- 3 The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes vertebrates and invertebrates, many of which are poorly known. Invertebrate species may be restricted to soils or canopy trees and shrubs. In any particular site not all of the assemblage listed above may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
- 4 Robertson Rainforest is a warm temperate/cool temperate rainforest type characterised by *Quintinia sieberi*, *Polyosma cunninghamia* and *Doryphora sassafras* (Mills & Jakeman 1995). *Eucryphia moorei* was probably common along streams. Tree and shrub species typically associated with this rainforest type are *Acmena smithii*, *Acacia melanoxylon*, *Quintinia sieberi*, *Hymenanthera dentata*, *Coprosma quadrifida*, *Tasmannia insipida* and occasionally *Ceratopetalum apetalum*. Cool temperate components include *Olearia argophylla*, *Hedycarya angustifolia*, *Eucryphia moorei*, *Dicksonia antarctica* and *Parsonsia brownii*. Ground cover is a dense fern cover including *Lastreopsis microsora* and *Microsorium pustulatum* subsp. *pustulatum*.
 - 5 Robertson Rainforest is found on high fertility soils derived generally from Tertiary basalts (mainly the Robertson Basalt and Kangaroo Valley Basanite), at high altitudes (500-750 m) and under high rainfalls (1000-1600 mm per annum) (Mills & Jakeman 1995).
 - 6 Robertson Rainforest is or has been known to occur in the Wingecarribee and Shoalhaven Local Government Area, but may occur elsewhere in the Sydney Basin Bioregion (sensu Thackway and Cresswell 1995). It has been reported from the Robertson plateau and Cambewarra Range (Mills & Jakeman 1995).
 - 7 Disturbed Robertson Rainforest remnants are considered to form part of the community including areas where the vegetation would respond to assisted natural regeneration, such as where the natural soil and associated seedbank is still at least partially intact.
 - 8 Robertson Rainforest has been extensively cleared for agriculture and rural development. About 400-600 ha or about 20% of its original extent is estimated to survive though mostly as fragmented remnants (Mills 1988). Remnants are often dominated by *Acmena smithii*, *Doryphora sassafras* and *Acacia melanoxylon*.
 - 9 A remnant of Robertson Rainforest is conserved in Robertson Nature Reserve at Robertson.
 - 10 Much of the remaining area of Robertson Rainforest is highly fragmented with much of it occurring on private land. Threatening processes include invasion of exotic weed species including *Ligustrum sinense*, *Hedera helix*, *Lonicera japonica*, *Ilex aquifolium* and clearing, grazing, trampling and further fragmentation.
 - 11 In view of the originally restricted distribution of this community, its inadequate representation within conservation reserves, and threats from fragmentation and weed invasion, the Scientific Committee is of the opinion that Robertson Rainforest in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
 Chairperson,
 Scientific Committee

Note this ecological community was originally listed in 2001 as indicated in the determination

References:

- Mills, K. (1988) The clearing of Illawarra rainforest: problems in reconstructing pre-european vegetation patterns. *Australian Geographer* 19(2): 230-240.
- Mills, K. & Jakeman, J. (1995) *Rainforests of the Illawarra District*. (Coachwood Publishing:Jamberoo)
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Shale Gravel Transition Forest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Shale Gravel Transition Forest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 2374 to 2378 in the *NSW Government Gazette* No. 75 dated 19 April 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Shale Gravel Transition Forest in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in paragraph 2. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).

2. Shale Gravel Transition Forest is characterised by the following assemblage:

<i>Acacia falcata</i>	<i>Acacia parramattensis</i>
<i>Aristida vagans</i>	<i>Austrodanthonia tenuior</i>
<i>Brunoniella australis</i>	<i>Bursaria spinosa</i>
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	<i>Daviesia ulicifolia</i>
<i>Desmodium varians</i>	<i>Dianella longifolia</i>
<i>Dianella revoluta</i> var. <i>revoluta</i>	<i>Dichelachne micrantha</i>
<i>Dichondra repens</i>	<i>Echinopogon caespitosus</i> var. <i>caespitosus</i>
<i>Echinopogon ovatus</i>	<i>Entolasia stricta</i>
<i>Eucalyptus fibrosa</i>	<i>Eucalyptus moluccana</i>
<i>Eucalyptus tereticornis</i>	<i>Euchiton sphaericus</i>
<i>Glycine clandestina</i>	<i>Goodenia hederacea</i> subsp. <i>hederacea</i>
<i>Hardenbergia violacea</i>	<i>Hydrocotyle peduncularis</i>
<i>Hypericum gramineum</i>	<i>Laxmannia gracilis</i>
<i>Lepidosperma laterale</i>	<i>Lissanthe strigosa</i>
<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	<i>Lomandra multiflora</i> subsp. <i>multiflora</i>
<i>Melaleuca decora</i>	<i>Microlaena stipoides</i> var. <i>stipoides</i>
<i>Opercularia diphylla</i>	<i>Oxalis perennans</i>
<i>Panicum simile</i>	<i>Paspalidium distans</i>
<i>Pomax umbellata</i>	<i>Poranthera microphylla</i>
<i>Pratia purpurascens</i>	<i>Themeda australis</i>
<i>Tricoryne elatior</i>	<i>Vernonia cinerea</i> var. <i>cinerea</i>
<i>Wahlenbergia gracilis</i>	

- 3 The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes invertebrates many of which are poorly known, as well as vertebrates. In any particular site not all of the assemblage listed above may be present. At any one time, some species may only be present as seeds in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to soils or canopy trees and shrubs, for example. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
- 4 Shale Gravel Transition Forest is predominantly of open-forest structure, usually with trees of *Eucalyptus fibrosa* sometimes with *E. moluccana* and *Eucalyptus tereticornis*. *Melaleuca decora* is frequently present in a small tree stratum. A sparse shrub stratum is usually present with species such as *Bursaria spinosa*, *Daviesia ulicifolia* and *Lissanthe strigosa*. Ground-layer species include *Microlaena stipoides* subsp. *stipoides*, *Cheilanthes sieberi* subsp. *sieberi*, *Themeda australis*, *Opercularia diphylla*, *Lomandra multiflora* subsp. *multiflora*, *Aristida vagans*, *Pratia purpurascens* and *Wahlenbergia gracilis*.
- 5 Shale Gravel Transition Forest occurs primarily in areas where shallow deposits of Tertiary alluvium overlie shale soils but may also occur in association with localised concentrations of iron-indurated gravel. Shale Gravel Transition Forest grades into Cumberland Plain Woodland as alluvial and ironstone influences decline. On thicker deposits of Tertiary alluvium it grades into Cooks River/Castlereagh Ironbark Forest or Castlereagh Scribbly Gum Woodland. South of the Tertiary alluvial deposits at Holsworthy, this community forms complex mosaics with shale/sandstone transitional communities.
- 6 Shale Gravel Transition Forest is described in NSW NPWS (2000a&b) which lists diagnostic plant species for the community. These species provide a guide to identification of the community, but care should be taken in the application and interpretation of diagnostic plant species because of sampling limitations; the reduction in species

diversity in degraded sites; and the fact that some species may only be present at a site at some times as a soil seedbank or as dormant bud/tubers.

- 7 Shale Gravel Transition Forest is or has been known to occur in the Auburn, Bankstown, Baulkham Hills, Blacktown, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta and Penrith Local Government Areas, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
- 8 Disturbed Shale Gravel Transition Forest remnants are considered to form part of the community including where the vegetation would respond to assisted natural regeneration, such as where the natural soil and associated seedbank is still at least partially intact.
- 9 Shale Gravel Transition Forest has been cleared for agriculture and rural development. About 36% of the original distribution of about 7000 ha remains (NSW NPWS 2000a) and much of this is in a degraded state.
- 10 Shale Gravel Transition Forest occurs in Agnes Banks Nature Reserve, Castlereagh Nature Reserve, Scheyville National Park and Windsor Downs Nature Reserve. The area in these reserves is about 3% of the original distribution.
- 11 Much of the remaining area of Shale Gravel Transition Forest has been disturbed by clearing, tracks, weeds invasion and soil disturbance. Continuing threats include invasion of exotic species, illegal dumping, unauthorised access, fragmentation and clearing for urban, rural residential recreational and industrial development.
- 12 In view of the originally restricted distribution of this community, its inadequate representation within conservation reserves, the extensive disturbance and weed invasion that has occurred, and the threats from ongoing development, the Scientific Committee is of the opinion that Shale Gravel Transition Forest in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- NSW NPWS (2000a). *Native vegetation maps of the Cumberland Plain, Western Sydney – Interpretation guidelines*. NSW National Parks & Wildlife Service, 2000.
- NSW NPSW (2000b). *The native vegetation of the Cumberland Plain, Western Sydney – Technical report*. NSW National Parks & Wildlife Service, 2000.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Southern Highlands Shale Woodlands in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Southern Highlands Shale Woodlands in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 3709 to 3713 in the *NSW Government Gazette* No. 97 dated 15 June 2001. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Southern Highlands Shale Woodlands in the Sydney Basin Bioregion is the name given to the ecological community characterised by the species assemblage listed in 2 below. It occurs on clay soils on Wianamatta Shale in the Southern Highlands. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Southern Highlands Shale Woodlands includes vegetation ranging from open-forest to woodland and scrub though it was predominantly woodland. Remnants may now be of variable structure due to clearing and disturbance. Typical trees include *Eucalyptus radiata*, *Eucalyptus macarthurii*, *Eucalyptus pauciflora*, *Eucalyptus globoidea*, *Eucalyptus cypellocarpa*, *Eucalyptus quadrangulata*, *Eucalyptus amplifolia*, *Eucalyptus ovata*. Other trees include *Eucalyptus smithii*, *Eucalyptus obliqua*, *Eucalyptus fastigata*, *Eucalyptus viminalis*, *Eucalyptus elata*, *Eucalyptus punctata*, *Eucalyptus tereticornis*, *Eucalyptus mannifera* and *Eucalyptus cinerea*.

The understorey is variable with small trees including *Acacia melanoxyton*, *Acacia binervata* and *Pittosporum undulatum*, shrubs such as *Indigofera australis*, *Leucopogon juniperinus*, *Olearia microphylla* and *Bursaria spinosa*. Ground species may include *Hardenbergia violacea*, *Lomandra longifolia*, *Pteridium esculentum*, *Themeda australis*, *Dichelachne crinita* and *Microlaena stipoides*.

Southern Highlands Shale Woodlands is characterised by the following assemblage:

<i>Acacia binervata</i>	<i>Acacia buxifolia</i>
<i>Acacia decurrens</i>	<i>Acacia falciformis</i>
<i>Acacia implexa</i>	<i>Acacia longifolia</i>
<i>Acacia mearnsii</i>	<i>Acacia melanoxyton</i>
<i>Acacia parramattensis</i>	<i>Acacia penninervis</i>
<i>Acacia rubida</i>	<i>Acacia stricta</i>
<i>Amperea xiphoclada</i>	<i>Asperula conferta</i>
<i>Austrodanthonia pilosa</i>	<i>Austrodanthonia racemosa</i>
<i>Austrostipa rudis</i>	<i>Billardiera scandens</i>
<i>Blechnum cartilagineum</i>	<i>Bracteantha bracteata</i>
<i>Bursaria spinosa</i>	<i>Calochlaena dubia</i>
<i>Cassinia aculeata</i>	<i>Clematis aristata</i>
<i>Dianella laevis</i>	<i>Dichelachne crinita</i>
<i>Dillwynia ramosissima</i>	<i>Echinopogon caespitosus</i>
<i>Eucalyptus amplifolia</i>	<i>Eucalyptus cinerea</i>
<i>Eucalyptus cypellocarpa</i>	<i>Eucalyptus dives</i>
<i>Eucalyptus elata</i>	<i>Eucalyptus fastigata</i>
<i>Eucalyptus globoidea</i>	<i>Eucalyptus macarthurii</i>
<i>Eucalyptus mannifera</i>	<i>Eucalyptus obliqua</i>
<i>Eucalyptus ovata</i>	<i>Eucalyptus pauciflora</i>
<i>Eucalyptus piperita</i>	<i>Eucalyptus punctata</i>
<i>Eucalyptus quadrangulata</i>	<i>Eucalyptus radiata</i>
<i>Eucalyptus rubida</i>	<i>Eucalyptus smithii</i>
<i>Eucalyptus tereticornis</i>	<i>Eucalyptus viminalis</i>
<i>Eustrephus latifolius</i>	<i>Exocarpos cupressiformis</i>
<i>Geranium homeanum</i>	<i>Geranium solanderi</i>
<i>Goodenia ovata</i>	<i>Hardenbergia violacea</i>
<i>Helichrysum elatum</i>	<i>Helichrysum scorpiodes</i>
<i>Hibbertia empetrifolia</i>	<i>Imperata cylindrica</i>
<i>Indigofera australis</i>	<i>Leptospermum polygalifolium</i>
<i>Leucopogon juniperinus</i>	<i>Leucopogon lanceolatus</i>
<i>Lomandra longifolia</i>	<i>Melaleuca linariifolia</i>
<i>Microlaena stipoides</i>	<i>Olearia microphylla</i>
<i>Patersonia glabrata</i>	<i>Persoonia linearis</i>
<i>Pittosporum undulatum</i>	<i>Plectantrus parviflorus</i>
<i>Podolobium ilicifolium</i>	<i>Polyscias sambucifolia</i>

Pratia purpurascens
Pultenaea blakelyi
Rubus parvifolius
Senecio hispidulus
Stackhousia monogyna
Tricoryne simplex
Viola betonicifolia
Zieria smithii

Pteridium esculentum
Pultenaea flexilis
Schoenus melanostachys
Senecio minimus
Themeda australis
Veronica plebeia
Viola hederacea

3. The total species list of the flora and fauna of the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. The community includes invertebrates, many of which are poorly known, as well as vertebrates. In any particular site not all of the assemblage listed above may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. Invertebrate species may be restricted to soils or canopy trees and shrubs. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
4. Southern Highlands Shale Woodlands is found on clay soils derived from Wianamatta Shale on the Southern Highlands, south of Colo Vale, extending from west of Mittagong, eastwards to the Illawarra Escarpment, south to Bundanoon and south-west to Canyonleigh. Elevation ranges from about 600 m to about 800 m. Rainfall ranges from 1400 mm in the east to 900 mm per annum in the west. Southern Highlands Shale Woodlands for parts of this area are described in Fisher, Ryan & Lembit (1995) and Benson & Howell (1994)
5. Southern Highlands Shale Woodlands is or has been known to occur in the Wingecarribee Local Government Area, but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
6. Disturbed Southern Highlands Shale Woodlands remnants are considered to form part of the community including areas where the vegetation would respond to assisted natural regeneration, such as where the natural soil and associated seedbank is still at least partially intact.
7. Southern Highlands Shale Woodlands has been extensively cleared for agriculture and rural development. Remnants are mostly small isolated pockets. About 2000 ha or less than 5% of the original extent now remains (Benson & Howell, 1994).
8. Southern Highlands Shale Woodlands has been reported from the Cecil Hoskins Nature Reserve, and the Hammock Hill and Old Bowral Airfield council reserves. There are small areas on the edges of the Metropolitan Catchment Area.
9. Animal species of conservation significance possibly occurring in Southern Highlands Shale Woodlands include Giant Burrowing Frog, *Heleioporus australiacus*; Rosenberg's Goanna, *Varanus rosenbergi*; Glossy Black Cockatoo, *Calyptorhynchus lathami*; Powerful Owl, *Ninox strenua*; Regent Honeyeater, *Xanthomyza phrygia*; and Yellow-bellied Glider, *Petaurus australis*.
10. Much of the remaining area of Southern Highlands Shale Woodlands is highly fragmented with much of it occurring on private land. Many remnants are in poor condition, including in some reserves, with aging trees, lack of regeneration and weed invasion. Ongoing threats include clearing for agriculture, hobby farming and replacement with european landscape e.g. pines, grazing that kills saplings and understorey species, ringbarking by stock, firewood cutting and invasion by exotic species.
11. In view of the restricted and fragmented distribution of this community, its inadequate representation within conservation reserves, the extensive disturbance and weed invasion that has occurred, and the threats from ongoing development, the Scientific Committee is of the opinion that Southern Highlands Shale Woodlands in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that the community is eligible for listing as an endangered ecological community.

Dr RICHARD MAJOR,
 Chairperson,
 Scientific Committee

Note this ecological community was originally listed in 2001 as indicated in the determination

References:

- Benson, D. & Howell, J. (1994) Hawkesbury-Nepean Catchment Vegetation Mapping – Moss Vale – Kiama draft 1:100 000 vegetation map sheets. (Royal Botanic Gardens Sydney).
- Fisher, M., Ryan, K. & Lembit, R. (1995) The natural vegetation of the Burratorang 1:100 000 map sheet. *Cunninghamia* 4(2): 143-215.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Sydney Freshwater Wetlands in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Sydney Freshwater Wetlands in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published in the *NSW Government Gazette* No. 168 dated 22 December 2000 (pages 13650 to 13651) and in the *NSW Government Gazette* No. 20 dated 19 January 2001 (pages 61 and 164 to 166). Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Sydney Freshwater Wetlands is the name given to the plant community characterised by the assemblage of species listed in paragraph 2 that is restricted to freshwater swamps in swales and depressions on sand dunes and low nutrient sandplain sites in coastal areas. All sites are within the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Sydney Freshwater Wetlands is characterised by the following assemblage of species:

<i>Banksia robur</i>	<i>Baumea articulata</i>
<i>Baumea juncea</i>	<i>Baumea rubiginosa</i>
<i>Callistemon citrinus</i>	<i>Casuarina glauca</i>
<i>Cladium procerum</i>	<i>Eleocharis sphacelata</i>
<i>Empodisma minus</i>	<i>Gahnia clarkei</i>
<i>Gahnia sieberiana</i>	<i>Gleichenia dicarpa</i>
<i>Goodenia paniculata</i>	<i>Hakea teretifolia</i>
<i>Hypolepis muelleri</i>	<i>Lepironia articulata</i>
<i>Leptocarpus tenax</i>	<i>Leptospermum juniperinum</i>
<i>Lomandra longifolia</i>	<i>Ludwigia peploides</i> subsp. <i>montevidensis</i>
<i>Melaleuca linariifolia</i>	<i>Melaleuca nodosa</i>
<i>Melaleuca quinquenervia</i>	<i>Melaleuca styphelioides</i>
<i>Persicaria decipiens</i>	<i>Persicaria strigosa</i>
<i>Philydrum lanuginosum</i>	<i>Phragmites australis</i>
<i>Pteridium esculentum</i>	<i>Restio tetraphyllus</i>
<i>Schoenus brevifolius</i>	<i>Triglochin procerum sensu lato</i>
<i>Typha orientalis</i>	<i>Villarsia exaltata</i>
<i>Viminaria juncea</i>	<i>Xanthorrhoea resinifera</i>
3. The total species flora and fauna list for the community is considerably larger than that given in 2 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 2 may be present. Invertebrate species may be restricted to sediments for example. At any one time, propagules and seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site, recent rainfall or drought conditions and by its recent disturbance history. The community includes vertebrates and invertebrates, many of which are poorly known.
4. Sydney Freshwater Wetlands are a mosaic community with considerable variation due to fluctuating water levels and seasonal conditions. Characteristic vegetation is sedges and aquatics particularly *Eleocharis sphacelata*, *Baumea juncea*, *Baumea rubiginosa*, *Baumea articulata*, *Gahnia sieberiana*, *Ludwigia peploides* subsp. *montevidensis* and *Persicaria* species. There may be considerable areas of open water particularly where drainage conditions have been altered. There may be patches of emergent trees such as *Melaleuca quinquenervia* and shrubs.
5. Sydney Freshwater Wetlands are restricted to freshwater swamps in swales and depressions on sand dunes and low nutrient sandplain sites in coastal areas. These areas are generally on the sands of the Warriewood and Tuggerah Soil Landscapes (Chapman & Murphy 1989). Coastal Swamp Forest eg. *Eucalyptus robusta* and swamp on alluvium with a saline influence is not covered by this Endangered Ecological Community Determination.
6. Sydney Freshwater Wetlands are or have been known to occur in the local government areas of Lake Macquarie, Wyong, Gosford, Pittwater, Warringah, Woollahra, Waverley, Botany, Rockdale, Randwick, Sutherland and Wollongong- but may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
7. Sydney Freshwater Wetlands were formerly particularly extensive in the Sydney Eastern Suburbs and Kurnell area. Occurrences have been reported to include Jewells Swamp, Wallarah wetland, Budgewoi wetlands, Porters Creek wetland, Wyong Golf Course, Tuggerah Oxbow, Bateau Bay; Iluka Lagoon; Everglades Lagoon Umina, Deep Creek Warringah, Dee Why Lagoon, Lachlan Swamps, Centennial Park, Botany Swamps at Eastlakes, La Perouse, Kurnell, Potter Point, Bundeena and Marley Lagoons and Coomaditchy Lagoon, but the ecological community may also occur elsewhere.

8. Sydney Freshwater Wetlands include vegetation described in Benson & Howell (1994), Adam & Stricker (1993) and Chafer (1997).
9. Disturbed remnants are considered to form part of the community described under this determination where the natural soil and associated seedbank is partially intact. At some sites changes to hydrology or drainage may be required to assist regeneration.
10. Sydney Freshwater Wetlands has been extensively cleared and filled for recreational purposes – playing fields, car parks, roads eg Marton Park Kurnell. Remnants are threatened with illegal filling with commercial, industrial and residential waste, dumping and burning of stolen vehicles, sand extraction and clearing for urban development. Threats include urban runoff associated with proximity to urban and agricultural areas, weed invasion e.g. *Cortaderia selloana*, *Ludwigia peruviana*, *Salvinia molesta*, *Eichhornia crassipes*; off-road vehicles and trail bikes, and introduced deer affecting Marley and Jibbon Lagoons in Royal National Park by grazing and trampling.
11. Small areas of Sydney Freshwater Wetlands have been reported to occur in Wyrabalong, Royal and Botany Bay National Parks.
12. Animal species of conservation significance which may occur in Sydney Freshwater Wetlands are Australasian Bittern, *Botaurus poiciloptilus*, Wallum Froglet, *Crinia tinnula*, Green and Golden Bell Frog, *Litoria aurea*, and Large Footed Myotis, *Myotis adversus*.
13. In view of the small size of existing remnants, and the threat of further clearing, disturbance and degradation, the Scientific Committee is of the opinion that the Sydney Freshwater Wetlands in the Sydney Basin Bioregion are likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2000 as indicated in the determination

References:

- Adam, P & Stricker, J (1993) *Wetlands of the Sydney Region*. National Estates Grants Programme. Project no 55. Report by Nature Council of NSW.
- Benson, D.H.& Howell, J. (1994) The natural vegetation of the Sydney 1:100 000 map sheet. *Cunninghamia* 3(4): 679-787.
- Chafer, C.J. (1997) Biodiversity of Wetlands in the Illawarra Catchments: an inventory. Illawarra Catchment Management Committee, Wollongong.
- Chapman, G.A. & Murphy, C.L. (1989) Soil landscapes of the Sydney 1:100 000 sheet. Soil Conservation Service of N.S.W., Sydney.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions (as described in the final determination to list the ecological community) which was published on pages 3 to 9 in the *NSW Government Gazette* No. 1 dated 4 January 2008. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions is the name given to the ecological community found on plateaus and tablelands with loam or clay soils derived primarily from basalt, but may also be derived from mudstones, granites, alluvium and other substrates. The community typically has an open canopy of eucalypts with sparse shrubs and a dense groundcover of herbs and grass, although disturbed stands may lack either or both of the woody strata. The community therefore includes 'derived' native grasslands which result from removal of the woody components from the woodland and forest forms of the community.
2. Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions is characterised by the following assemblage of species:

<i>Acacia melanoxylon</i>	<i>Acaena novae-zelandiae</i>
<i>Asperula conferta</i>	<i>Austrodanthonia pilosa</i>
<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	<i>Austrostipa rudis</i>
<i>Carex inversa</i>	<i>Cymbonotus lawsonianus</i>
<i>Desmodium varians</i>	<i>Dichelachne inaequiglumis</i>
<i>Dichondra</i> spp.	<i>Echinopogon ovatus</i>
<i>Einadia nutans</i>	<i>Elymus scaber</i> var. <i>scaber</i>
<i>Eucalyptus dalrympleana</i> subsp. <i>dalrympleana</i>	<i>Eucalyptus pauciflora</i>
<i>Eucalyptus radiata</i> subsp. <i>radiata</i>	<i>Eucalyptus viminalis</i>
<i>Geranium solanderi</i> var. <i>solanderi</i>	<i>Glycine microphylla</i>
<i>Hydrocotyle laxiflora</i>	<i>Lomandra filiformis</i> subsp. <i>coriacea</i>
<i>Microlaena stipoides</i>	<i>Oreomyrrhis eriopoda</i>
<i>Oxalis perennans</i>	<i>Plantago varia</i>
<i>Poa sieberiana</i> var. <i>sieberiana</i>	<i>Poa labillardieri</i> var. <i>labillardieri</i>
<i>Pteridium esculentum</i>	<i>Ranunculus lappaceus</i>
<i>Rubus parvifolius</i>	<i>Rumex brownii</i>
<i>Stellaria pungens</i>	<i>Themeda australis</i>
<i>Veronica plebeia</i>	<i>Viola betonicifolia</i>
<i>Wahlenbergia stricta</i> subsp. <i>stricta</i>	

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in low abundance. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species, will change with time since fire, and may also change in variation to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species; the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
4. Tableland Basalt Forest is dominated by an open eucalypt canopy of variable composition. *Eucalyptus viminalis* (Ribbon Gum), *E. radiata* (Narrow-leaved Peppermint), *E. dalrympleana* subsp. *dalrympleana* (Mountain Gum) and *E. pauciflora* (White Sally) may occur in the community in pure stands or in varying combinations. Small trees of *Acacia melanoxylon* may be scattered amongst the eucalypts. When present, a sparse layer of shrubs may include *Acacia melanoxylon* (Blackwood), *A. dealbata* (Silver Wattle) or *Rubus parvifolius* (Native Raspberry). The typically dense groundcover comprises a range of native grasses including *Microlaena stipoides* (Weeping Grass), *Echinopogon ovatus* (Hedgehog Grass), *Austrodanthonia racemosa* (Wallaby Grass), *Austrostipa rudis*, *Poa labillardieri*, *P. sieberiana* and *Themeda australis* (Kangaroo Grass), forbs including *Stellaria pungens*, *Dichondra* spp. (Kidney weeds), *Acaena novae-zelandiae* (Bidgee-widgee), *Geranium solanderi* var. *solanderi* (Native Geranium), *Hydrocotyle laxiflora* (Stinking Pennywort), *Asperula conferta* (Common Woodruff), *Plantago varia* (Variable Plantain), *Viola betonicifolia* (Mountain Violet), and the fern *Pteridium esculentum* (Bracken). Undisturbed stands of the community may have either a woodland or forest structure. The structure of the community varies depending on past and current disturbances, particularly clearing and grazing. Contemporary tree-dominated stands of the community are largely relics or regrowth of originally taller forests and woodlands, which are likely to have had scattered shrubs and a largely continuous grassy groundcover. At some sites, mature trees may exceed

30 m tall, although regrowth stands may be shorter than 10 m tall. After total or partial clearing, the tree canopy may remain sparse or may regrow to form dense stands of saplings and small trees, which are typically associated with a ground layer of reduced cover and diversity. Either or both of the tree and shrub strata may be absent from the community, as a consequence of past disturbance. Native grasslands derived from clearing of the woodland and forest, are also part of this community if they contain characteristic non-woody species listed in paragraph 2.

5. Tableland Basalt Forest typically occurs on loam or clay soils associated with basalt or, less commonly, alluvium, fine-grained sedimentary rocks, granites and similar substrates that produce relatively fertile soils. Its distribution spans altitudes from approximately 600 m to 900 m above sea level, usually on undulating or hilly terrain. Mean annual rainfall varies from approximately 750 mm up to 1100 mm across the distribution of the community. Tableland Basalt Forest is currently known from the local government areas (LGA) of Bathurst Regional, Goulburn Mulwaree, Oberon, Palerang, Shoalhaven, Upper Lachlan and Wingecarribee but may occur elsewhere within the designated bioregions. Bioregions are defined in Thackway and Cresswell (1995).
6. Tableland Basalt Forest includes the community of the same name (map unit 20) described and mapped by Tindall *et al.* (2004) and Tozer *et al.* (2006). A survey of the Wingecarribee LGA (Eco Logical 2002) was not sufficiently detailed to discriminate this community from other types of vegetation in the region. These studies map the majority of the community, but they do not cover its most western occurrences or occurrences in the Oberon district. In the upper catchment of the Lachlan River, western occurrences of Tableland Basalt Forest include 'High altitude gum tall open-forest on fertile soils of the central tablelands' (broad vegetation type 45) of DEC (2006). The community is not clearly identifiable in the classification and map of Thomas *et al.* (2000) and Gellie (2005). However, examples of the community are included within 'Eastern Tableland Dry Shrub/Grass Forest' (Forest Ecosystem 73) and 'Southern Tablelands Dry Shrub/Grass/Herb Forest' (Forest Ecosystem 74), where these units of Thomas *et al.* (2000) and Gellie (2005) occur on basalt or similarly fertile substrates. None of the above studies map areas of derived native grasslands, which are part of this community (see paragraph 4). These are structural forms of the community from which the woody components of the vegetation have been lost. Tableland Basalt Forest belongs to the Tableland Clay Grassy Woodlands vegetation class of Keith (2004).
7. The species composition of Tableland Basalt Forest varies with average annual rainfall. On basalt or plutonic substrates east of Mittagong and Moss Vale, at the eastern edge of its distribution where average rainfall exceeds 1000-1100 mm per year, the community is replaced by Robertson Basalt Tall Open-forest and Mount Gibraltar Forest. Both of these are listed as Endangered Ecological Communities under the Threatened Species Conservation Act 1995, and both are included within Southern Highlands Basalt Forest (map unit WSF p266) of Tindall *et al.* (2004) and Tozer *et al.* (2006). They differ from Tableland Basalt Forest in having a greater frequency of *Eucalyptus fastigata* and *E. cypellocarpa* in the tree canopy and in having a greater frequency of mesophyllous shrubs, vines and ferns in the understorey.
8. Since European settlement and relative to the longevity of its dominant trees, which live for several hundred years, Tableland Basalt Forest has undergone a large reduction in geographic distribution. This reduction has occurred as a result of clearing vegetation from flat terrain with fertile soils for pasture development and cropping (Keith 2004, Tindall *et al.* 2004, Tozer *et al.* 2006). The total remaining area of Tableland Basalt Forest is estimated to be less than 15 000 ha, including approximately 10 700 ha mapped in the Sydney – South Coast region by Tindall *et al.* (2004) and Tozer *et al.* (2006). The area of the community remaining in the Sydney – South Coast region is estimated to represent approximately 5-20% of its projected occurrence there at the time of European settlement, of which approximately 280 ha (<2%) is estimated to occur within conservation reserves (Tozer *et al.* 2006). Almost all of the remaining area of the community occurs on private land or on public easements, where its geographic distribution is undergoing a continuing decline due to small-scale clearing. 'Clearing of native vegetation' is listed as a Key Threatening Process under the Threatened Species Conservation Act 1995.
9. Extensive clearing of Tableland Basalt Forest has resulted in fragmentation and loss of ecological connectivity. The remaining area of the community is severely fragmented, with more than 70% of mapped extant patches estimated to be less than 10 ha (map data from Tozer *et al.* 2006). Many of these remaining patches occur on road reserves, the edges of house paddocks or beside steep slopes on the edges of cleared land. Small-scale clearing associated with rural subdivisions, easements, transport corridors and other localised development continues to threaten the community. The integrity and survival of small, isolated stands is impaired by the small population size of many species, enhanced risks from environmental stochasticity, disruption to pollination and dispersal of fruits or seeds, and likely reductions in the genetic diversity of isolated populations (Young *et al.* 1996, Young and Clarke 2000). Fragmentation also results in reduced fire frequencies within some patches, which may reduce the viability of some native plant populations (Clarke 2000). Fragmentation of habitat and disruption of these ecological processes contribute to a large reduction in the ecological function of the community.
10. Much of the remaining area of Tableland Basalt Forest is regrowth forest and woodland from past clearing activities. Areas of the community that are now devoid of woody plant species have undergone more extreme structural changes, but some may retain a substantial suite of native grasses and herbs in the ground layer. Tall trees are often absent from patches of regrowth vegetation, but may remain as isolated individuals within paddocks. These and other remnant and regrowth trees may suffer episodes of elevated mortality related to drought and recurring insect attack consistent with rural tree decline (Reid and Landsberg 2000). Changes in structure and species composition of the community, including loss of large trees, which provide habitat resources for a range of fauna, contribute to a large reduction in ecological function of the community. 'Loss of hollow-bearing trees' is listed as a Key Threatening Process under the Threatened Species Conservation Act 1995.

11. Moderate to heavy grazing of Tableland Basalt Forest, by livestock and rabbits results in the decline and disappearance of palatable plant species, including shrubs and herbs, and compaction and erosion of topsoil, making it difficult for a diverse native understorey to re-establish at times when total grazing pressure is reduced. The effects of such overgrazing may be exacerbated under drought conditions. Habitat degradation associated with overgrazing and erosion contributes to a large reduction in ecological function of the community. 'Competition and grazing by the feral European Rabbit, *Orytolagus cuniculus* (L.)' is listed as a Key Threatening Process under the Threatened Species Conservation Act 1995.
12. Weed invasion also poses a significant threat to Tableland Basalt Forest. Principal weed species include:

<i>Acetosella vulgaris</i>	<i>Sorrel</i>
<i>Cirsium vulgare</i>	<i>Spear Thistle</i>
<i>Crataegus monogyna</i>	<i>Hawthorn</i>
<i>Dactylis glomerata</i>	<i>Cocksfoot</i>
<i>Holcus lanatus</i>	<i>Yorkshire Fog</i>
<i>Hypochaeris radicata</i>	<i>Flatweed</i>
<i>Lolium perenne</i>	<i>Ryegrass</i>
<i>Plantago lanceolata</i>	<i>Lambs Tongues</i>
<i>Rosa rubiginosa</i>	<i>Sweet Briar</i>
<i>Rubus ulmifolius</i>	<i>Blackberry</i>
<i>Stellaria media</i>	<i>Chickweed</i>
<i>Taraxacum officinale</i>	<i>Dandelion</i>
<i>Trifolium spp.</i>	<i>Clover</i>

Several of these exotic species, particularly grasses, form a dense ground layer capable of smothering indigenous plants, reducing their reproduction and survival. The invasion and establishment of exotic species in Tableland Basalt Forest, results in a large reduction in the ecological function of the community. 'Invasion of native plant communities by exotic perennial grasses' is listed as a Key Threatening Process under the Threatened Species Conservation Act 1995.

13. Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions is not eligible to be listed as a critically endangered ecological community.
14. Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions is eligible to be listed as an endangered ecological community as, in the opinion of the Scientific Committee, it is facing a very high risk of extinction in New South Wales in the near future, as determined in accordance with the following criteria as prescribed by the Threatened Species Conservation Regulation 2002:

Clause 25

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (b) a large reduction in geographic distribution.

Clause 26

The ecological community's geographic distribution is estimated or inferred to be:

- (b) highly restricted,

and the nature of its distribution makes it likely that the action of a threatening process could cause it to decline or degrade in extent or ecological function over a time span appropriate to the life cycle and habitat characteristics of the ecological community's component species.

Clause 27

The ecological community has undergone, is observed, estimated, inferred or reasonably suspected to have undergone or is likely to undergo within a time span appropriate to the life cycle and habitat characteristics of its component species:

- (a) a large reduction in ecological function,
as indicated by any of the following:
- (d) change in community structure
 - (e) change in species composition
 - (f) disruption of ecological processes
 - (g) invasion and establishment of exotic species
 - (h) degradation of habitat
 - (i) fragmentation of habitat

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2008 as indicated in the determination

References:

- Clarke PJ (2000) Plant population processes in temperate woodlands in eastern Australia – premises for management. Pp 248-270 in (Eds. R J Hobbs and C J Yates) *Temperate eucalypt woodlands in Australia: biology, conservation, management and restoration* (Surrey Beatty & Sons: Chipping Norton).
- DEC (2006) *Reconstructed and extant distribution of native vegetation in the Central West Catchment*. NSW Department of Environment and Conservation: Dubbo.
- Eco Logical Australia (2002) *Wingecarribee Biodiversity Study – vegetation mapping, threatened species, corridors and conservation assessment*. Report to Wingecarribee Shire Council.
- Gellie NJH (2005) Native vegetation of the southern forests: South-east Highlands, Australian Alps, South-west Slopes and South-east Corner bioregions. *Cunninghamia* 9, 219-254.
- Keith DA (2004) Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT. (NSW Department of Environment and Conservation: Sydney).
- Reid N, Landsberg J (2000) Tree decline in agricultural landscapes: what we stand to lose. Pp 127-166 in (Eds. RJ Hobbs, CJ Yates) *Temperate eucalypt woodlands in Australia: biology, conservation, management and restoration* (Surrey Beatty & Sons: Chipping Norton).
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)
- Thomas V, Gellie N, Harrison T (2000) *Forest Ecosystem Classification and Mapping for the Southern CRA Region*. Report for the NSW CRA/RFA Steering Committee, Project No. NS 08EH. NSW National Parks and Wildlife Service, Queanbeyan.
- Tindall D, Pennay C, Tozer MG, Turner K, Keith DA (2004) *Native vegetation map report series. No. 4. Araluen, Batemans Bay, Braidwood, Burragorang, Goulburn, Jervis Bay, Katoomba, Kiama, Moss Vale, Penrith, Port Hacking, Sydney, Taralga, Ulladulla, Wollongong*. NSW Department of Environment and Conservation and NSW Department of Infrastructure, Planning and Natural Resources, Sydney.
- Tozer MG, Turner K, Simpson C, Keith DA, Beukers P, MacKenzie B, Tindall D, Pennay C (2006) *Native vegetation of southeast NSW: a revised classification and map for the coast and eastern tablelands*. Version 1.0 NSW Department of Environment and Conservation and NSW Department of Natural Resources, Hurstville.
- Young A, Boyle T, Brown A (1996) The population genetic consequences of habitat fragmentation for plants. *Trends in Ecology and Evolution* 11, 413-418.
- Young A, Clarke G (2000) *Genetics, demography and the viability of fragmented populations*. (Cambridge University Press: Cambridge).

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 10419 to 10423 in the *NSW Government Gazette* No. 246 dated 6 December 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Umina Coastal Sandplain Woodland is the name given to the ecological community recorded on coastal sands on the Woy Woy peninsula from the local government area of Gosford (within the Sydney Basin Bioregion *sensu* Thackway and Cresswell 1995) that is characterised by the following assemblage of species.

<i>Acacia elata</i>	<i>Acacia floribunda</i>
<i>Acacia irrorata</i>	<i>Acacia longifolia</i>
<i>Acacia suaveolens</i>	<i>Acacia ulicifolia</i>
<i>Adiantum aethiopicum</i>	<i>Allocasuarina littoralis</i>
<i>Allocasuarina torulosa</i>	<i>Angophora floribunda</i>
<i>Aotus ericoides</i>	<i>Banksia ericifolia</i>
<i>Banksia integrifolia</i>	<i>Banksia serrata</i>
<i>Billardiera scandens</i>	<i>Bossiaea ensata</i>
<i>Breynia oblongifolia</i>	<i>Caesia parviflora</i>
<i>Cassytha glabella</i>	<i>Cayratia clematidea</i>
<i>Cheilanthes sieberi</i>	<i>Clematis glycinoides</i>
<i>Clerodendrum tomentosum</i>	<i>Commelina cyanea</i>
<i>Cymbopogon refractus</i>	<i>Dianella caerulea</i>
<i>Dodonaea triquetra</i>	<i>Duboisia myoporoides</i>
<i>Echinopogon ovatus</i>	<i>Elaeocarpus reticulatus</i>
<i>Entolasia stricta</i>	<i>Eriostemon australasius</i>
<i>Eucalyptus botryoides</i>	<i>Eucalyptus paniculata</i>
<i>Eustrephus latifolius</i>	<i>Exocarpus cupressiformis</i>
<i>Glochidion ferdinandi</i>	<i>Glycine clandestina</i>
<i>Gompholobium latifolium</i>	<i>Gonocarpus teucrioides</i>
<i>Hakea sericea</i>	<i>Hardenbergia violacea</i>
<i>Hibbertia scandens</i>	<i>Hibbertia vestita</i>
<i>Imperata cylindrica</i>	<i>Isolepis nodosus</i>
<i>Kennedia rubicunda</i>	<i>Lasiopetalum macrophyllum</i>
<i>Leptospermum polygalifolium</i>	<i>Leptospermum trinervium</i>
<i>Lomandra longifolia</i>	<i>Macrozamia communis</i>
<i>Melaleuca quinquenervia</i>	<i>Monotoca elliptica</i>
<i>Notelaea longifolia</i>	<i>Pandorea pandorana</i>
<i>Persoonia levis</i>	<i>Persoonia linearis</i>
<i>Phyllanthus hirtellus</i>	<i>Pittosporum revolutum</i>
<i>Platysace lanceolata</i>	<i>Podocarpus spinulosus</i>
<i>Pomax umbellata</i>	<i>Pseudanthemum variabile</i>
<i>Pteridium esculentum</i>	<i>Rapanea variabilis</i>
<i>Restio tetraphyllum</i>	<i>Sarcopetalum harveyanum</i>
<i>Smilax glycyphylla</i>	<i>Stephania japonica</i>
<i>Themeda australis</i>	<i>Veronica plebeia</i>
<i>Viola hederacea</i>	<i>Xanthorrhoea arborea</i>
<i>Xylomelum pyrifforme</i>	

2. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in very small quantity. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species, the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
3. Umina Coastal Sandplain Woodland has been recorded from the local government area of Gosford (within the Sydney Basin Bioregion). Bioregions are defined in Thackway and Cresswell (1995).

4. Umina Coastal Sandplain Woodland is a low woodland dominated by trees of *Eucalyptus botryoides* and *Angophora floribunda* with a diverse understorey of sclerophyllous shrubs species including *Banksia integrifolia*, *Banksia serrata*, *Monotoca elliptica*, *Macrozamia communis*, *Acacia ulicifolia*, *Platysace lanceolata*, *Acacia suaveolens* and *Allocasuarina littoralis*.
5. Umina Coastal Sandplain Woodland has been recorded on coastal sands on the Woy Woy Peninsula at Umina and Pearl Beach. The woodland was described in 1952 by Burges & Drover (1952) who described *Eucalyptus botryoides* as predominating immediately behind the beach with *Angophora floribunda* predominating for up to 2 km from the beach. They described the soils as iron podzols and distinguished them from humus podzols with *Angophora costata* which occurred further away from the beach. Umina Coastal Sandplain Woodland occurs on soils of the Woy Woy Soil Landscape (Chapman & Murphy 1989). Umina Coastal Sandplain Woodland is part of the vegetation described as Coastal Dune Forest (map unit 9t) in Benson & Howell (1994).
6. Umina Coastal Sandplain Woodland is currently only known from three small areas at Umina; at Umina Oval, McEvoy Oval and Umina High School and at a tiny remnant at Little Patonga Beach. The total area still surviving in 2002 is estimated at less than 2 ha. Understorey has been removed for the occurrence at Pearl Beach.
7. Umina Coastal Sandplain Woodland has been extensively cleared for suburban development and remnants are not within conservation reserves. Remnants are very small and threatened by mowing and slashing, weed invasion, sand extraction and modified fire regimes. Weed species include *Lantana camara*, *Chrysanthemoides monilifera*, *Ipomoea cairica*, *Paspalum urvillei*, *Bidens pilosa*, *Pennistemon villosus*, *Coreopsis lanceolata* and *Ehrharta erecta*.
8. In view of the above the Scientific Committee is of the opinion that Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- Benson, D. & Howell, J. (1994) The natural vegetation of the Sydney 1:100 000 map sheet. *Cunninghamia* 3(4): 679-787.
- Burges, A. & Drover, D.P. (1952) The rate of podzol development in sands of the Woy Woy district N.S.W. *Australian Journal of Botany* 1:83-95.
- Chapman, G.A. & Murphy, C.L. (1989) *Soil landscapes of the Sydney 1:100 000 sheet*. Soil Conservation Service of N.S.W., Sydney.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Warkworth Sands Woodland in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Warkworth Sands Woodland of the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 10614 to 10618 in the *NSW Government Gazette* No. 255 dated 13 December 2002. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. Warkworth Sands Woodland in the Sydney Basin Bioregion is the name given to the ecological community occurring on aeolian sand deposits south east of Singleton in the Hunter Valley. This ecological community is currently known to occur in the local government area of Singleton but may occur elsewhere in the Bioregion. Bioregions are defined in Thackway and Cresswell (1995).
2. Warkworth Sands Woodland is characterised by the following assemblage of species.

<i>Acacia falcata</i>	<i>Acacia filicifolia</i>
<i>Ajuga australis</i>	<i>Allocasuarina littoralis</i>
<i>Allocasuarina luehmannii</i>	<i>Amyema pendulum</i>
<i>Angophora floribunda</i>	<i>Aristida calycina</i>
<i>Aristida ramosa</i>	<i>Aristida vagans</i>
<i>Aristida warburgii</i>	<i>Banksia integrifolia</i>
<i>Brachyloma daphnoides</i>	<i>Breynia oblongifolia</i>
<i>Callitris endlicheri</i>	<i>Calotis cuneifolia</i>
<i>Cheilanthes sieberi</i>	<i>Chrysocephalum apiculatum</i>
<i>Desmodium varians</i>	<i>Dianella revoluta</i>
<i>Dichondra species A</i>	<i>Echinopogon caespitosus</i>
<i>Echinopogon intermedius</i>	<i>Einadia trigonos</i>
<i>Entolasia stricta</i>	<i>Eucalyptus glaucina</i>
<i>Eucalyptus blakelyi/tereticornis intergrades</i>	<i>Eucalyptus crebra</i>
<i>Exocarpos cupressiformis</i>	<i>Exocarpos strictus</i>
<i>Hardenbergia violacea</i>	<i>Hibbertia linearis</i>
<i>Hovea linearis</i>	<i>Hypoxis hygrometrica</i>
<i>Imperata cylindrica</i>	<i>Indigofera australis</i>
<i>Jacksonia scoparia</i>	<i>Lomandra glauca</i>
<i>Lomandra leucocephala</i>	<i>Lomandra muticus</i>
<i>Melaleuca decora</i>	<i>Melaleuca thymifolia</i>
<i>Persoonia linearis</i>	<i>Pimelea linifolia</i>
<i>Pomax umbellata</i>	<i>Pteridium esculentum</i>
<i>Solanum prinophyllum</i>	<i>Vittadina sulcata</i>

3. The total species list of the community is considerably larger than that given above, with many species present in only one or two sites or in very small quantity. The species composition of a site will be influenced by the size of the site, recent rainfall or drought condition and by its disturbance (including fire) history. The number of species, and the above ground relative abundance of species will change with time since fire, and may also change in response to changes in fire regime (including changes in fire frequency). At any one time, above ground individuals of some species may be absent, but the species may be represented below ground in the soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers. The list of species given above is of vascular plant species, the community also includes micro-organisms, fungi, cryptogamic plants and a diverse fauna, both vertebrate and invertebrate. These components of the community are poorly documented.
4. Warkworth Sands Woodland is generally of woodland to low woodland structure with trees of *Angophora floribunda* and *Banksia integrifolia*, and shrubs and ground species including *Acacia filicifolia*, *Pteridium esculentum*, *Imperata cylindrica*, *Brachyloma daphnoides* and *Melaleuca thymifolia*.
5. Small drainage lines within the community may support a higher abundance of certain species (such as *Melaleuca thymifolia*) and less of others (such as *Banksia integrifolia*). Such areas are included as part of this community. In addition, adjacent areas, where woodland occurs on a shallow A horizon of sand, are included within this community.
6. The community supports a number of threatened species including squirrel glider (*Petaurus norfolcensis*), speckled warbler (*Pyrrholaemus saggitata*), brown treecreeper (*Climacteris picumnis* subsp. *victoriae*) and grey-crowned babbler (*Pomatosomus temporalis* subsp. *temporalis*).

7. Warkworth Sands Woodland occupies sand dunes generally 1-6 m high, resting on a river terrace. The main dune deposit is aligned NW-SE. The sand deposit is thought to be of Pleistocene age (Story *et al.* 1963).
8. Woodlands occurring adjacent to the sand dunes on Permian clays share many species with Warkworth Sands Woodland but also have a higher abundance of Permian substrate species, such as *Corymbia maculata*, *Eucalyptus moluccana*, *Allocasuarina luehmannii* and *Eucalyptus crebra*. These areas are not considered to be part of this community, except in ecotones where there is a dominant abundance of the species of the Warkworth Sands Woodland. This is generally where a thin sandy veneer overlies the Permian substrate.
9. Warkworth Sands Woodland is now mainly confined to a small area near Warkworth, about 15 km south east of Singleton in the Hunter Valley. This occurrence now comprises nearly 80% of the extant vegetation. Due to the extent of vegetation clearing and modification in other areas, the original extent is now difficult to estimate, though assuming the community occurred on most of the other occurrences of the Warkworth Land System (Story *et al.* 1963), except that at Kurri Kurri which is clearly different, the current Warkworth Sands Woodland extent may be as little as 13% of its pre-settlement extent.
10. Approximately 800 ha of Warkworth Sands Woodland (based on air photo interpretation, GIS mapping and field reconnaissance) remains. Ongoing threats include open-cut coalmining, sandmining and the construction of mining infrastructure as well as pressures from agricultural clearing, altered fire frequency, weed invasion and grazing.
11. No areas of Warkworth Sands Woodland occur within a conservation reserve.
12. In view of the above the Scientific Committee is of the opinion that the Warkworth Sands Woodland in the Sydney Basin Bioregion is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- Story, R., Galloway, R.W. & van de Graaff, R. H. M. (1963) Land Systems of the Hunter Valley. pp 12-61 in Story, R., Galloway, R.W., van de Graaff, R.H.M. & Tweedie, A. (eds) *General Report on the Lands of the Hunter Valley*. Land Research Series No. 8. CSIRO, Melbourne.
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

**DETERMINATION TO MAKE A MINOR AMENDMENT TO PART 3 OF SCHEDULE 1
OF THE THREATENED SPECIES CONSERVATION ACT**

THE Scientific Committee, established by the Threatened Species Conservation Act has made a Determination to make a minor amendment to Part 3 of Schedule 1 (Endangered ecological communities) of the Act by inserting the Western Sydney Dry Rainforest in the Sydney Basin Bioregion (as described in the determination of the Scientific Committee under Division 5 Part 2) and as a consequence to omit reference to the Western Sydney Dry Rainforest in the Sydney Basin Bioregion (as described in the final determination to list the ecological community) which was published on pages 2301 to 2305 in the *NSW Government Gazette* No. 39 dated 24 March 2000. Minor amendments to the Schedules are provided for by Division 5 of Part 2 of the Act.

The Scientific Committee is of the opinion that the amendment is necessary or desirable to correct minor errors or omissions in the Determination in relation to the Thackway and Cresswell (1995) reference.

The Scientific Committee has found that:

1. The Western Sydney Dry Rainforest (WSDR) is the name given to the plant community from the local government areas of Camden, Wollondilly, Fairfield, Hawkesbury and Baulkham Hills (within the Sydney Basin Bioregion sensu Thackway and Cresswell 1995) that is characterised by the following assemblage of species:

<i>Abutilon oxycarpum</i>	<i>Acacia elata</i>
<i>Acacia implexa</i>	<i>Acacia maidenii</i>
<i>Acacia parramattensis</i>	<i>Acacia penninervis</i>
<i>Adiantum aethiopicum</i>	<i>Allocasuarina torulosa</i>
<i>Alphitonia excelsa</i>	<i>Aphanopetalum resinosum</i>
<i>Arthropodium milleflorum</i>	<i>Asplenium flabellifolium</i>
<i>Austrostipa ramosissima</i>	<i>Backhousia myrtifolia</i>
<i>Brachychiton populneus</i>	<i>Breynia oblongifolia</i>
<i>Brunoniella australis</i>	<i>Bursaria spinosa</i>
<i>Callistemon salignus</i>	<i>Carex declinata</i>
<i>Carex inversa</i>	<i>Carex longibrachiata</i>
<i>Cassine australis</i> var. <i>australis</i>	<i>Cayratia clematidea</i>
<i>Celastrus australis</i>	<i>Cheilanthes distans</i>
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	<i>Chloris truncata</i>
<i>Chloris ventricosa</i>	<i>Cissus antarctica</i>
<i>Citriobatus pauciflorus</i>	<i>Claoxylon australe</i>
<i>Clematis aristata</i>	<i>Clematis glycinoides</i> var. <i>glycinoides</i>
<i>Clerodendrum tomentosum</i>	<i>Commelina cyanea</i>
<i>Convolvulus erubescens</i>	<i>Corymbia maculata</i>
<i>Croton verreauxii</i>	<i>Cymbopogon refractus</i>
<i>Cynanchum elegans</i>	<i>Cyperus enervis</i>
<i>Cyperus gracilis</i>	<i>Cyperus imbecillis</i>
<i>Cyperus laevis</i>	<i>Danthonia racemosa</i> var. <i>racemosa</i>
<i>Deeringia amaranthoides</i>	<i>Desmodium brachypodum</i>
<i>Desmodium varians</i>	<i>Dianella longifolia</i>
<i>Dichondra repens</i>	<i>Diospyros australis</i>
<i>Doodia aspera</i>	<i>Doodia caudata</i> var. <i>caudata</i>
<i>Echinopogon caespitosus</i> var. <i>caespitosus</i>	<i>Echinopogon ovatus</i>
<i>Ehretia acuminata</i>	<i>Einadia hastata</i>
<i>Einadia nutans</i> subsp. <i>nutans</i>	<i>Einadia trigonos</i> subsp. <i>trigonos</i>
<i>Entolasia marginata</i>	<i>Entolasia stricta</i>
<i>Eragrostis leptostachya</i>	<i>Eucalyptus crebra</i>
<i>Eucalyptus moluccana</i>	<i>Eucalyptus pilularis</i>
<i>Eucalyptus quadrangulata</i>	<i>Eucalyptus tereticornis</i>
<i>Eustrephus latifolius</i>	<i>Exocarpos cupressiformis</i>
<i>Ficus rubiginosa</i>	<i>Galium binifolium</i>
<i>Galium migrans</i>	<i>Galium propinquum</i>
<i>Geijera latifolia</i>	<i>Geitonoplesium cymosum</i>
<i>Geranium homeanum</i>	<i>Geranium solanderi</i> var. <i>solanderi</i>
<i>Glycine clandestina</i>	<i>Glycine</i> sp.A
<i>Glycine tabacina</i>	<i>Gnaphalium sphaericum</i>
<i>Guioa semiglauca</i>	<i>Hardenbergia violacea</i>
<i>Hydrocotyle tripartita</i>	<i>Hymenanthera dentata</i>
<i>Imperata cylindrica</i> var. <i>major</i>	<i>Juncus usitatus</i>
<i>Kennedia rubicunda</i>	<i>Legnephora moorei</i>
<i>Leucopogon juniperinus</i>	<i>Maclura cochinchinensis</i>
<i>Marsdenia flavescens</i>	<i>Marsdenia rostrata</i>
<i>Marsdenia viridiflora</i>	<i>Melaleuca styphelioides</i>

<i>Melia azedarach</i> var. <i>australasica</i>	<i>Melicope micrococca</i>
<i>Mentha satureioides</i>	<i>Microlaena stipoides</i> var. <i>stipoides</i>
<i>Morinda jasminoides</i>	<i>Notelaea longifolia</i> forma <i>longifolia</i>
<i>Notelaea venosa</i>	<i>Nyssanthes erecta</i>
<i>Olearia viscidula</i>	<i>Omalthus populifolius</i>
<i>Omalthus stillingiifolius</i>	<i>Oplismenus aemulus</i>
<i>Oplismenus imbecillis</i>	<i>Oxalis perennans</i>
<i>Pandorea pandorana</i>	<i>Parsonsia straminea</i>
<i>Paspalidium criniforme</i>	<i>Passiflora herbertiana</i> subsp. <i>herbertiana</i>
<i>Pellaea falcata</i> var. <i>falcata</i>	<i>Persoonia linearis</i>
<i>Phyllanthus gastroemii</i>	<i>Phyllanthus gunnii</i>
<i>Pittosporum revolutum</i>	<i>Plantago debilis</i>
<i>Plectranthus parviflorus</i>	<i>Poa affinis</i>
<i>Poa labillardieri</i>	<i>Polyscias sambucifolia</i> subsp. A
<i>Pratia purpurascens</i>	<i>Pseuderanthemum variabile</i>
<i>Psychotria loniceroides</i>	<i>Pteridium esculentum</i>
<i>Pteris tremula</i>	<i>Pyrrosia rupestris</i>
<i>Rapanea variabilis</i>	<i>Ripogonum album</i>
<i>Rubus parvifolius</i>	<i>Rubus ulmifolius</i>
<i>Rumex brownii</i>	<i>Sarcopetalum harveyanum</i>
<i>Scutellaria humilis</i>	<i>Senecio hispidulus</i> var. <i>hispidulus</i>
<i>Senecio linearifolius</i>	<i>Senecio quadridentatus</i>
<i>Senna clavigera</i>	<i>Sicyos australis</i>
<i>Sigesbeckia orientalis</i> subsp. <i>orientalis</i>	<i>Smilax glycyphylla</i>
<i>Solanum brownii</i>	<i>Solanum prinophyllum</i>
<i>Solanum pungetium</i>	<i>Solanum stelligerum</i>
<i>Stellaria flaccida</i>	<i>Stenocarpus salignus</i>
<i>Stephania japonica</i> var. <i>discolor</i>	<i>Streblus brunonianus</i>
<i>Stypantra glauca</i>	<i>Syncarpia glomulifera</i>
<i>Toona ciliata</i>	<i>Trema aspera</i>
<i>Tylophora barbata</i>	<i>Urtica incisa</i>
<i>Wahlenbergia gracilis</i>	

- The total species list of the community is considerably larger than that given in 1 (above), with many species present in only one or two sites or in very small quantity. In any particular site not all of the assemblage listed in 1 may be present. At any one time, seeds of some species may only be present in the soil seed bank with no above-ground individuals present. The species composition of the site will be influenced by the size of the site and by its recent disturbance history. The number of species and the above-ground composition of species will change with time since fire, and may also change in response to changes in fire frequency.
- WSDR has been recorded from the local government areas of Camden, principally near Cobbitty, Fairfield (Fairfield City Farm) and Wollondilly (Razorback Range), Hawkesbury and Baulkham Hills (within the Sydney Basin Bioregion). Bioregions are defined in Thackway and Cresswell (1995).
- WSDR is typically associated with gullies and sheltered slopes of hilly, relatively steep sections of the generally elevated Cumberland Plain in the Razorback Range from Cobbitty to Picton, and sporadically elsewhere in Western Sydney including Fairfield City Farm, Grose Vale and Cattai. Soils are clay soils on Wianamatta Shale.
- The structure of the community was originally a canopy of dry vine thicket rainforest as a similar understorey in eucalypt forest or woodland, but as a result of partial clearance it may now exist as woodland or shrubland.
- WSDR includes vegetation described by National Parks and Wildlife Service (NPWS) – referred to as Dry Rainforest in UBBS (1997); referred to as Vine Thicket in Benson & Howell (1990); referred to as Dry Rainforest in Benson, Howell & McDougall (1996) and James, McDougall & Benson (1999). The vegetation was also referred to as Cobbitty Vine Thicket and is included in the *Camden Significant Tree and Vegetated Landscape Study*.
- Significant species for WSDR listed by NPWS (1997) include: *Cynanchum elegans*, *Croton verreauxii*, *Streblus brunonianus*, *Legnephore moorei*, *Deeringia amaranthoides*, *Diospyros australis*, *Celastrus australis*, *Geijera latifolia*, *Solanum stelligerum*, *Maclura cochinchinensis*, *Aphanopetalum resinum* and *Senna clavigera*.
- Sites where WSDR remnants are found are less than 2 ha. in area and are mostly located on private property. An occurrence of WSDR is known from Cattai National Park.
- Occurrences of WSDR have been reduced to tiny remnants by clearing. The remnants are subject to disturbance and edge effects as a consequence of small size and threatened by woody weed invasion particularly by African Olive *Olea europaea subsp africana*.
- In view of the small size of existing remnants, the threat of further clearing and disturbance, the Scientific Committee is of the opinion that Western Sydney Dry Rainforest in the Sydney Basin Bioregion is likely to become extinct

in nature unless factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr RICHARD MAJOR,
Chairperson,
Scientific Committee

Note this ecological community was originally listed in 2002 as indicated in the determination

References:

- Benson, D. and Howell, J. (1990) *Taken for Granted; The Bushland of Sydney and its Suburbs*. (Kangaroo Press: Kenthurst).
- Benson, D., Howell, J. and McDougall, L. (1996) *A Guide to Natural Vegetation in the Hawkesbury-Nepean Catchment*. (Royal Botanic Gardens: Sydney).
- National Parks & Wildlife Service (1997), *Urban Bushland Biodiversity Survey of Western Sydney*. (National Parks and Wildlife Service: Sydney).
- James, T. McDougall, L. & Benson, D. (1999) *Rare Bushland Plants of Western Sydney* (Royal Botanic Gardens: Sydney).
- Landarc Landscape Architects (1993) *Camden Significant Tree and Vegetated Landscape Study* (Camden Municipal Council).
- Thackway R, Cresswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. (Version 4.0. Australian Nature Conservation Agency: Canberra.)

OFFICIAL NOTICES

Department of Planning

ENVIRONMENTAL PLANNING AND ASSESSMENT (SPECIAL INFRASTRUCTURE CONTRIBUTION – WESTERN SYDNEY GROWTH AREAS) AMENDMENT DETERMINATION 2011

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning and Infrastructure, in pursuance of section 94EE of the Environmental Planning and Assessment Act 1979, make the following Determination.

Dated: 9 September 2011.

BRADLEY HAZZARD,
Minister for Planning and Infrastructure

1 Name of Determination

This Determination is the Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Growth Areas) Amendment Determination 2011.

2 Amendment of Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Growth Areas) Determination 2011

Clause 25 (Reduction in contribution if made by 1 July 2011) of the Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Growth Areas) Determination 2011 is amended by:

- (a) numbering the existing text as subclause (1), and
- (b) omitting “1 July 2011” from subclause (1) and by inserting instead “1 January 2012”, and
- (c) inserting after subclause (1):
 - (2) The amendment made to subclause (1) by the Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Growth Areas) Amendment Determination 2011 is taken to have been in force on and from 24 January 2011.

3 Reasons for variation to level of contribution if made before 1 January 2012

For the purpose of section 94EE (5) of the Environmental Planning and Assessment Act 1979, the reason for making this Determination is to encourage the development of land in Western Sydney for residential and industrial purposes by extending to 1 January 2012 the period during which a special infrastructure contribution (if made as a monetary contribution) is reduced by one third.

Department of Primary Industries

COAL MINE HEALTH AND SAFETY ACT 2002

Coal Mine Health and Safety Regulation 2006

Exemption Order

I, ROBERT REGAN, Chief Inspector under the Coal Mine Health and Safety Act 2002, pursuant to Clause 201 of the Coal Mine Health and Safety Regulation 2006, make the following Exemption Order as specified in the schedule below.

SCHEDULE

1.0 Exemption

Notice is hereby given to the operator of an underground coal mine that the requirements of Clause 19 (1) (c) which relates to electrical equipment suitable for use in a hazardous zone and states:

“(1) The electrical engineering management plan for a coal operation must make provision for the following:

(c) the use of electrical plant only of a Gazetted type in a hazardous zone”

shall not apply at underground coal mining operations in so far as it relates to the Tiefenbach Solenoid Valve Actuators type iE33/IRSL and iEA33/IRSL as covered by certificate of conformity AUEx 2249X issue 1 and fitted to Sandvik ABM20 and ABM25 series bolter miners..

2.0 Conditions

This exemption shall be subject to the following conditions:

- 2.1 This exemption shall only apply to Tiefenbach Solenoid Valve Actuators type iEA33/IRSL and iE33/IRSL, covered by Certificate of Conformity AUEx 2249X issue 1 and fitted to a Sandvik ABM20 or ABM25 series bolter miner that is in use at an underground coal mining operation at the date of publication of this exemption in the gazette.
- 2.2 The solenoid valve actuator shall be considered as only achieving certification to “Ex ib” classification, and shall be deemed to have an input capacitance “Ci=0µF”. All other requirements of Certificate of Conformity AUEx 2249X issue 1 shall be complied with.
- 2.3 The solenoid valve actuators shall not be energised in hazardous zones where methane levels in the general body of air exceed 1.25%.
- 2.4 The mine shall review its operational risk assessment for the bolter miner to ensure controls provided for the detection of methane are suitable to ensure that the solenoid actuators are operated within the conditions of this exemption.
- 2.5 A copy of the review from 2.4 above is to be maintained in the verification dossier for the machine.
- 2.6 The mine shall compile and maintain a listing of machines fitted with non compliant solenoid valve actuators that are in service at the mine. This listing shall include as a minimum, the plant number of the bolter miner and the date of proposed replacement of solenoid valve actuators.
- 2.7 A copy of this exemption is to be maintained in the verification dossier for the bolter miner while non-

compliant solenoid actuators are in service on that machine.

- 2.8 Unless withdrawn earlier, this exemption shall have effect for a period of four years from the date of publication in the gazette.
- 2.9 A copy of this exemption shall be provided to the site check inspector for the mine.
- 2.10 A copy of this exemption and the listing of machines fitted with non-compliant solenoid valve actuators shall be displayed on the Mine Notice Board for the duration of the exemption, while ever non compliant solenoid valve actuators are in service at the mine.

Dated this 27th day of September 2011.

ROBERT REGAN,
Chief Inspector,
Department of Trade and Investment,
Regional Infrastructure and Services
(under delegation from Director General)

FISHERIES MANAGEMENT ACT 1994

Fisheries Management (Aquaculture) Regulation 2007

Clause 37 (3) – Notice of Granting of
Class 1 Aquaculture Lease

THE Minister has granted the following Class 1 Aquaculture Lease:

OL66/053 within the estuary of the Pambula River, having an area of 0.3619 hectares to Joan SEVERS of Pambula, NSW, for a term of 15 years expiring on 7 July 2026.

OL68/300 within the estuary of Brisbane Water, having an area of 0.7661 hectares to John MANSON and Celia MANSON of Salt Ash, NSW, for a term of 15 years expiring on 17 June 2025.

AL10/007 within the estuary of Camden Haven, having an area of 0.3230 hectares to Anthony TROUP and Joneen TROUP of Laurieton, NSW, for a term of 15 years expiring on 4 August 2026.

AL07/011 within the estuary of Port Stephens, having an area of 0.2114 hectares to Graham DESSENT and Lynette DESSENT of Soldiers Point, NSW, for a term of 15 years expiring on 4 August 2026.

BILL TALBOT,
Director,
Aquaculture, Conservation and Marine Parks,
Fisheries Division,
Department of Primary Industries

FISHERIES MANAGEMENT ACT 1994

Fisheries Management (Aquaculture) Regulation 2007

Clause 39 (4) – Notice of Aquaculture Lease Renewal

THE Minister has renewed the following Class 1 Aquaculture Leases:

OL95/007 within the estuary of Wagonga Inlet, having an area of 0.8357 hectares to EUROBODALLA COAST OYSTER SUPPLIES & SERVICES PTY LTD of Tuross Head, for a term of 15 years expiring on 19 March 2026.

OL81/005 within the estuary of the Hawkesbury River, having an area of 4.6113 hectares to Robert MOXHAM of Brooklyn, for a term of 15 years expiring on 11 October 2026.

OL80/021 within the estuary of Merimbula Lake, having an area of 0.7083 hectares to Una Winifred SMITH of Millingandi, for a term of 15 years expiring on 31 March 2026.

OL65/287 within the estuary of Port Stephens, having an area of 1.8758 hectares to Donald BURGOYNE and Mark SALM of Lemon Tree Passage, for a term of 15 years expiring on 11 February 2026.

OL80/235 within the estuary of Port Stephens, having an area of 1.4202 hectares to Donald BURGOYNE and Mark SALM of Lemon Tree Passage, for a term of 15 years expiring on 31 March 2026.

OL81/137 within the estuary of Port Stephens, having an area of 1.5552 hectares to Richard FARLEY of Karuah, for a term of 15 years expiring on 30 November 2026.

OL65/110 within the estuary of the Hawkesbury River, having an area of 0.4656 hectares to Bruce ALFORD of Patonga, for a term of 15 years expiring on 12 April 2026.

OL80/057 within the estuary of the Crookhaven River, having an area of 2.1720 hectares to Garry WALL of Greenwell Point, for a term of 15 years expiring on 21 July 2026.

OL81/055 within the estuary of the Hastings River, having an area of 0.4307 hectares to PORT OYSTER COMPANY PTY LTD of Port Macquarie, for a term of 15 years expiring on 16 February 2026.

OL81/042 within the estuary of Wallis Lake, having an area of 1.3653 hectares to Laurence COOMBES of Forster, for a term of 15 years expiring on 24 May 2026.

OL81/043 within the estuary of Wallis Lake, having an area of 0.3898 hectares to Laurence COOMBES of Forster, for a term of 15 years expiring on 16 June 2026.

OL84/161 within the estuary of Wallis Lake, having an area of 0.2882 hectares to Clarence COOMBES of Forster, for a term of 15 years expiring on 31 August 2026.

OL84/162 within the estuary of Wallis Lake, having an area of 0.4920 hectares to Clarence COOMBES of Forster, for a term of 15 years expiring on 31 August 2026.

OL86/073 within the estuary of Wallis Lake, having an area of 0.2006 hectares to Clarence COOMBES of Forster, for a term of 15 years expiring on 31 March 2026.

OL91/015 within the estuary of the Hawkesbury River, having an area of 0.3582 hectares to AGLIGN PTY LTD of Brooklyn, for a term of 15 years expiring on 10 September 2026.

OL93/007 within the estuary of the Hawkesbury River, having an area of 2.0582 hectares to AGLIGN PTY LTD of Brooklyn, for a term of 15 years expiring on 31 July 2026.

OL90/010 within the estuary of the Clyde River, having an area of 0.7415 hectares to PELICAN BEACH OYSTERAGE PTY LTD of Batemans Bay, for a term of 15 years expiring on 14 May 2026.

OL94/051 within the estuary of Camden Haven, having an area of 0.5302 hectares to Herman VAN HAREN and Robyn VAN HAREN of Lorne via Kendall, for a term of 15 years expiring on 16 July 2026.

OL95/005 within the estuary of the Bellinger River, having an area of 0.8578 hectares to Eric LINDSAY and Deborah LINDSAY of Urunga, for a term of 15 years expiring on 24 March 2026.

BILL TALBOT,
Director,
Aquaculture, Conservation and Marine Parks,
Fisheries Division,
Department of Primary Industries

MINERAL RESOURCES

NOTICE is given that the following applications have been received:

EXPLORATION LICENCE APPLICATIONS

(T11-0308)

No. 4393, ZEOLITE AUSTRALIA PTY LIMITED (ACN 000 038 497), area of 12 units, for Group 2, dated 28 September 2011. (Armidale Mining Division).

(T11-0311)

No. 4394, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), area of 74 units, for Group 1, dated 30 September 2011. (Orange Mining Division).

(T11-0312)

No. 4395, PINNACLE GOLD PTY LTD (ACN 151 778 424), area of 261 units, for Group 1, dated 4 October 2011. (Cobar Mining Division).

(T11-0313)

No. 4396, CARPENTARIA EXPLORATION LIMITED (ACN 095 117 981), area of 100 units, for Group 1, dated 4 October 2011. (Wagga Wagga Mining Division).

(T11-0314)

No. 4397, PINNACLE GOLD PTY LTD (ACN 151 778 424), area of 261 units, for Group 1, dated 5 October 2011. (Armidale Mining Division).

(T11-0315)

No. 4398, ABX1 PTY LTD (ACN 139 790 364), area of 88 units, for Group 2, dated 7 October 2011. (Singleton Mining Division).

(T11-0316)

No. 4399, SINO-QZ GROUP PTY LTD (ACN 108 528 865), area of 50 units, for Group 1, dated 7 October 2011. (Cobar Mining Division).

(T11-0317)

No. 4400, SNOWMIST PTY LTD (ACN 011 041 384), area of 6 units, for Group 1, dated 8 October 2011. (Wagga Wagga Mining Division).

MINING LEASE APPLICATIONS

(T11-0111)

No. 1, Jeanette Mary BARNES, area of about 50.47 hectares, to mine for clay/shale, dimension stone, feldspathic materials and limestone, dated 15 April 2011. (Orange Mining Division).

(T11-0276)

No. 5, CSR BUILDING PRODUCTS LIMITED (ACN 008 631 356), area of about 192580 square metres, to mine for clay/shale, dated 5 September 2011. (Singleton Mining Division).

(T11-0286)

No. 6, Louise Anne HOUSTON, area of about 1050 hectares, to mine for corundum, ruby, sapphire and zircon, dated 8 September 2011. (Inverell Mining Division).

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

NOTICE is given that the following applications have been granted:

EXPLORATION LICENCE APPLICATIONS

(T11-0027)

No. 4149, now Exploration Licence No. 7846, COBAR OPERATIONS PTY LTD (ACN 103 555 853), County of Blaxland, Map Sheet (8132, 8133), area of 14 units, for Group 1, dated 28 September 2011, for a term until 28 September 2013.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

NOTICE is given that the following applications have been withdrawn:

EXPLORATION LICENCE APPLICATIONS

(T11-0137)

No. 4253, AUSTRALIS MINERALS PTY LTD (ACN 131 522 257), County of Buller, Map Sheet (9340). Withdrawal took effect on 8 September 2011.

(T11-0306)

No. 4391, SILVER CITY MINERALS LIMITED (ACN 130 933 309), County of Yancowinna, Map Sheet (7234). Withdrawal took effect on 27 September 2011.

(T11-0311)

No. 4394, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), County of Phillip, Map Sheet (8832, 8833). Withdrawal took effect on 4 October 2011.

(T11-0312)

No. 4395, PINNACLE GOLD PTY LTD (ACN 151 778 424), County of Killara and County of Landsborough, Map Sheet (7736, 7737, 7836, 7837). Withdrawal took effect on 5 October 2011.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

NOTICE is given that the following applications for renewal have been received:

(10-1541)

Exploration Licence No. 2921, PERILYA BROKEN HILL LIMITED (ACN 099 761 289), area of 22 units. Application for renewal received 7 October 2011.

(05-5811)

Exploration Licence No. 4619, PROVIDENCE GOLD AND MINERALS PTY LTD (ACN 004 881 789), area of 4 units. Application for renewal received 7 October 2011.

(T93-0804)

Exploration Licence No. 4702, PROVIDENCE GOLD AND MINERALS PTY LTD (ACN 004 881 789), area of 8 units. Application for renewal received 7 October 2011.

(11-5127)

Exploration Licence No. 5138, CENTENNIAL NEWSTAN PTY LIMITED (ACN 101 508 865), area of 1793 hectares. Application for renewal received 28 September 2011.

(06-1155)

Exploration Licence No. 5629, CAPITAL MINING LIMITED (ACN 104 551 171), area of 4 units. Application for renewal received 5 October 2011.

(11-4118)

Exploration Licence No. 6467, WARATAH COAL PTY LTD (ACN 114 165 669), area of 3200 hectares. Application for renewal received 11 October 2011.

(07-0248)

Exploration Licence No. 6893, RIMFIRE PACIFIC MINING NL (ACN 006 911 744), area of 4 units. Application for renewal received 4 October 2011.

(09-7088)

Exploration Licence No. 6894, RIMFIRE PACIFIC MINING NL (ACN 006 911 744), area of 8 units. Application for renewal received 4 October 2011.

(07-0182)

Exploration Licence No. 6901, CARPENTARIA EXPLORATION LIMITED (ACN 095 117 981), area of 154 units. Application for renewal received 8 October 2011.

(09-6332)

Exploration Licence No. 6904, GLOUCESTER COAL LTD (ACN 008 881 712), area of 1760 hectares. Application for renewal received 6 October 2011.

(06-4194)

Exploration Licence No. 6907, ACTWAY PTY LIMITED (ACN 090 165 174), area of 46 units. Application for renewal received 10 October 2011.

(07-0082)

Exploration Licence No. 6925, IRONBARK ZINC LIMITED (ACN 118 751 027), area of 20 units. Application for renewal received 4 October 2011.

(T09-0087)

Exploration Licence No. 7401, PLATSEARCH NL (ACN 003 254 395), area of 50 units. Application for renewal received 29 September 2011.

(11-5272)

Petroleum Exploration Licence No. 5, AGL UPSTREAM INVESTMENTS PTY LIMITED (ACN 115 063 744), area of 6 blocks. Application for renewal received 6 October 2011.

(07-7399)

Petroleum Exploration Licence No. 16, METGASCO LTD (ACN 088 196 383), area of 11 blocks. Application for renewal received 30 September 2011.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

RENEWAL OF CERTAIN AUTHORITIES

NOTICE is given that the following authorities have been renewed:

(T93-0617)

Exploration Licence No. 4620, NEWCREST OPERATIONS LIMITED (ACN 009 221 505) and JERVOIS MINING LIMITED (ACN 007 626 575), County of Bathurst, Map Sheet (8731), area of 10 units, for a further term until 18 November 2012. Renewal effective on and from 28 September 2011.

(07-2346)

Exploration Licence No. 5868, HILL END GOLD LIMITED (ACN 072 692 365), Counties of Bathurst, Roxburgh and Wellington, Map Sheet (8731, 8732), area of 62 units, for a further term until 17 June 2012. Renewal effective on and from 28 September 2011.

(T02-0448)

Exploration Licence No. 6064, KIMBERLEY METALS LIMITED (ACN 129 954 365), County of Kennedy, Map Sheet (8333), area of 5 units, for a further term until 20 March 2013. Renewal effective on and from 28 September 2011.

(04-0577)

Exploration Licence No. 6346, TRITTON RESOURCES PTY LTD (ACN 100 095 494), Counties of Canbelego and Flinders, Map Sheet (8234, 8235), area of 78 units, for a further term until 22 November 2012. Renewal effective on and from 28 September 2011.

(11-0955)

Exploration Licence No. 6388, ANCHOR RESOURCES LIMITED (ACN 122 751 419), County of Fitzroy, Map Sheet (9437), area of 13 units, for a further term until 3 March 2013. Renewal effective on and from 28 September 2011.

(04-0644)

Exploration Licence No. 6391, GOLDEN CROSS OPERATIONS PTY LTD (ACN 050 212 827), Counties of Ashburnham and Wellington, Map Sheet (8631, 8632), area of 33 units, for a further term until 10 March 2013. Renewal effective on and from 27 September 2011.

(04-0612)

Exploration Licence No. 6404, TECK AUSTRALIA PTY LTD (ACN 091 271 911), Counties of Farnell and Yancowinna, Map Sheet (7134), area of 99 units, for a further term until 19 April 2013. Renewal effective on and from 5 October 2011.

(06-4171)

Exploration Licence No. 6695, GOLDEN CROSS OPERATIONS PTY LTD (ACN 050 212 827), County of Blaxland, Map Sheet (8032), area of 59 units, for a further term until 7 January 2013. Renewal effective on and from 28 September 2011.

(06-4118)

Exploration Licence No. 6711, EASTERN IRON LIMITED (ACN 126 678 037) and PLATSEARCH NL (ACN 003 254 395), Counties of Canbelego and Cowper, Map Sheet (8135, 8136), area of 50 units, for a further term until 31 January 2013. Renewal effective on and from 25 August 2011.

(06-7069)

Exploration Licence No. 6836, ALLIANCE (NSW) PTY LTD (ACN 096 947 223), Counties of Farnell and Yancowinna, Map Sheet (7134), area of 88 units, for a further term until 19 July 2013. Renewal effective on and from 6 October 2011.

(07-0355)

Exploration Licence No. 7051, GOLDEN CROSS OPERATIONS PTY LTD (ACN 050 212 827), County of Blaxland, Map Sheet (8132), area of 30 units, for a further term until 1 February 2012. Renewal effective on and from 28 September 2011.

(T08-0043)

Exploration Licence No. 7218, W J MURDOCH & CO PTY LTD (ACN 002 598 478), County of Wellington, Map Sheet (8832), area of 2 units, for a further term until 15 October 2012. Renewal effective on and from 28 September 2011.

(T08-0084)

Exploration Licence No. 7246, GOLDMINCO CORPORATION (ACN 669 382 832), County of Gipps, Map Sheet (8330), area of 70 units, for a further term until 13 November 2012. Renewal effective on and from 28 September 2011.

(T08-0223)

Exploration Licence No. 7283, EASTERN IRON LIMITED (ACN 126 678 037), Counties of Canbelego and Cowper, Map Sheet (8235, 8236), area of 33 units, for a further term until 5 February 2013. Renewal effective on and from 25 August 2011.

(T08-0074)

Exploration Licence No. 7321, STRAITS GOLD PTY LIMITED (ACN 072 498 081), County of Ashburnham, Map Sheet (8631), area of 4 units, for a further term until 9 March 2013. Renewal effective on and from 28 September 2011.

(T08-0232)

Exploration Licence No. 7329, VALE AUSTRALIA EA PTY LTD (ACN 081 724 101), Counties of Culgoa and Gunderbooka, Map Sheet (8038, 8138), area of 211 units, for a further term until 18 March 2013. Renewal effective on and from 28 September 2011.

(09-8667)

Coal Lease No. 327 (Act 1973), COAL & ALLIED OPERATIONS PTY LTD (ACN 000 023 656), Parish of Lemington, County of Hunter, Map Sheet (9032-1-N), area of 6.48 hectares, for a further term until 6 March 2031. Renewal effective on and from 16 September 2011.

(07-5366)

Mining Lease No. 1552 (Act 1992), LIDDELL TENEMENTS PTY LIMITED (ACN 051 529 876), Parish of Liddell, County of Durham, Map Sheet (9133-3-S), area of 70.31 hectares, for a further term until 10 March 2025. Renewal effective on and from 20 September 2011.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

TRANSFERS

(11-0984)

Exploration Licence No. 6400, formerly held by TURON GOLD PTY LTD (ACN 108 675 216) has been transferred to GREAT WESTERN MINERALS LIMITED (ACN 138 476 874). The transfer was registered on 28 September 2011.

(11-0984)

Exploration Licence No. 6464, formerly held by TURON GOLD PTY LTD (ACN 108 675 216) has been transferred to GREAT WESTERN MINERALS LIMITED (ACN 138 476 874). The transfer was registered on 28 September 2011.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

TRANSFER OF PART OF AN AUTHORITY

(11-3604)

Exploration Licence No. 6594, held by DELLWORTH PTY LIMITED (ACN 002 998 192) has been transferred in part to XSTRATA NEWPAC PTY LIMITED (ACN 115 852 438). The transfer was registered on 27 September 2011.

Pursuant to section 123 of the Mining Act 1992:

- (1) Exploration Licence No. 6594 has been cancelled as to the area transferred; and
- (2) Exploration Licence No. 7799 has been granted to XSTRATA NEWPAC PTY LIMITED (ACN 115 852 438) over the area transferred for a period until 6 July 2012.

Description of area part transferred:

An area of about 245.9 hectares. For further information contact Titles Branch.

CHRIS HARTCHER, M.P.,
Minister for Resources and Energy

PLANT DISEASES ACT 1924

Appointment of Inspectors

I, ANDREW COLIN SANGER, Director Agricultural Compliance, with the delegated authority of the Director General of the Department of Trade and Investment, Regional Infrastructure and Services, pursuant to section 28C of the Plant Diseases Act 1924 ("the Act") and pursuant to section 11 of the Act, hereby appoint the persons named in the Schedule below as inspectors for the purposes of the Act.

SCHEDULE

Pasquale ZIRILLI
Gary MOSS
Shannon Lyndsey DRAPER
Peter EVANS
Helena Margaret SPENCER
Vaeruarangi NIKORO
John William ANDREW
Joseph MIMMO
Robert SJOLLEMA
Brian WARD
Robert BELATO
Michael William BEVAN
Phillip GRAY
Luigi PIROMALLI

Dated this 10th day of October 2011.

A. C. SANGER,
Director Agricultural Compliance
Department of Primary Industries
(an office within the
Department of Trade and Investment,
Regional Infrastructure and Services)

**PLANT DISEASES (NSW FRUIT FLY EXCLUSION ZONE AND GREATER SUNRAYSLIA PEST FREE AREA)
ORDER 2011 UNDER THE PLANT DISEASES ACT 1924**

I, SATENDRA KUMAR, Director, Plant Biosecurity of the Department of Trade and Investment, Regional Infrastructure and Services, with the delegated authority of the Minister for Primary Industries in pursuance of section 3A of the Plant Diseases Act 1924 (“the Act”), and in pursuance of section 4 of the Act being of the opinion that the importation, introduction or bringing of host fruit into specified portions of New South Wales is likely to introduce the pest Queensland fruit fly (*Bactrocera tryoni*) into specified portions of New South Wales, make the following Order regulating the importation, introduction or bringing of host fruit into specified portions of New South Wales.

1. Name of Order

This Order is the Plant Diseases (NSW Fruit Fly Exclusion Zone and Greater Sunraysia Pest Free Area) Order 2011.

2. Commencement

This Order commences on the date it is published on the Department’s website.

3. Interpretation

In this Order:

approved treatment means a treatment or schedule of treatments relevant to the type of host fruit or manner of harvest as specified in Schedule 8.

approved systems approach means the risk management measures as specified in Schedule 9.

APVMA means the Australian Pesticides and Veterinary Medicines Authority.

area freedom certificate means a certificate

- (a) approved by the officer responsible for agriculture in the State or Territory where the host fruit was grown or packed, and
- (b) currently in force certifying that the State or Territory or that part of the State or Territory where the host fruit was grown or packed is known to be free of Queensland fruit fly.

assorted tropical and sub-tropical fruits – inedible peel means the host fruit specified in Schedule 4, being host fruit classified as such in accordance with the Codex Classification of Foods and Animal Feeds.

authorised person means an inspector or a person authorised pursuant to section 11 (3) of the Act.

certificate means a Plant Health Certificate or a Plant Health Assurance Certificate.

Certification Assurance Arrangement means an arrangement approved by the Department which enables a business accredited under the arrangement to certify that certain quarantine requirements have been satisfied for the movement of host fruit to interstate and/or intrastate markets.

Note: An example of an approved Certification Assurance Arrangement is the Interstate Certification Assurance (ICA) Scheme.

citrus fruits means the host fruit specified in Schedule 5, being host fruit classified as such in accordance with the Codex Classification of Foods and Animal Feeds.

composite lots means a consignment comprising packages of different types of host fruit sourced from one or more suppliers.

Codex Classification of Foods and Animal Feeds means the listing of food commodities in trade classified into groups on the basis of the commodity’s similar potential for pesticides residues, as published by the Joint Food and Agriculture Organization of the United Nations (FAO)/World Health Organisation (WHO) Food Standards Programme Codex Alimentarius Commission (publication available at <http://www.codexalimentarius.net>).

Department means Department of Trade and Investment, Regional Infrastructure and Services.

fruiting vegetables, other than cucurbits means the host fruit specified in Schedule 6, being host fruit classified as such in accordance with the Codex Classification of Foods and Animal Feeds.

Greater Sunraysia (NSW Portion) Pest Free Area means the portion of New South Wales described in Schedule 2.

Greater Sunraysia (Victoria Portion) Pest Free Area means the part of Victoria declared as a restricted area under section 20 of the Plant Health and Plant Products Act 1995 (Vic) for the control of Queensland fruit fly.

hard green, in the case of:

avocados means the flesh is not soft or softening, and the skin is not cracked or broken.

bananas, means the fruit is hard and green, with no sign of colouration when assessed over the entire surface area and the skin is unbroken,

host fruit means the fruit specified in Schedule 3, being fruit which is susceptible to infestation by Queensland fruit fly.

immature green condition, in the case of papaya (excluding defective flower-end type papaya) and babaco, means the fruit is hard and green and has no ripe colouration.

lot means a discrete quantity of fruit received from one grower at one time.

mature green, in the case of:

babaco and papaya (excluding defective flower-end type papaya) means fruit is hard and has no more than 25 % of ripe colouring at the time of packing,

bananas, means the flesh is hard and not flexible, the skin is green and shows no yellow colouration except for areas towards the flower end of a fruit where the sun has bleached the skin but the flesh beneath is still hard, and has no pre-harvest cracks, splits, punctures or other breaks that penetrate through to the flesh,

black sapote means the skin is free from any black colouring and unbroken,

passionfruit means the skin is smooth and unwrinkled and unbroken,

Tahitian lime means the skin has no yellow colouration and is unbroken.

New South Wales Fruit Fly Exclusion Zone or NSW FFEZ means the portion of New South Wales specified in Schedule 1.

outbreak area means an area declared as an outbreak area under the relevant legislation.

Plant Health Assurance Certificate means a certificate issued by a business accredited under a Certification Assurance Arrangement.

Plant Health Certificate means a certificate issued by an authorised person.

Queensland fruit fly means the pest *Bactrocera tryoni* (Froggatt).

the Act means the Plant Diseases Act 1924.

unbroken skin means the skin has no preharvest cracks, punctures, pulled stems or other breaks which penetrate through the skin and that have not healed with callus tissue.

Note: **covering or package, inspector, occupier** and **owner** all have the same meaning as in the Act.

4. Revocation

In pursuance of section 4 and 3 (2) of the Act the following proclamations are revoked:

- (a) Proclamation P184 dated 15 November 2008 and published in *NSW Government Gazette* No. 152 on 28 November 2008 at pages 11434-11435; and
- (b) Proclamation P191 dated 1 October 2008 and published in *NSW Government Gazette* No. 128 on 3 October 2008 at pages 9704-9705.

as is any proclamation revived as a result of these revocations.

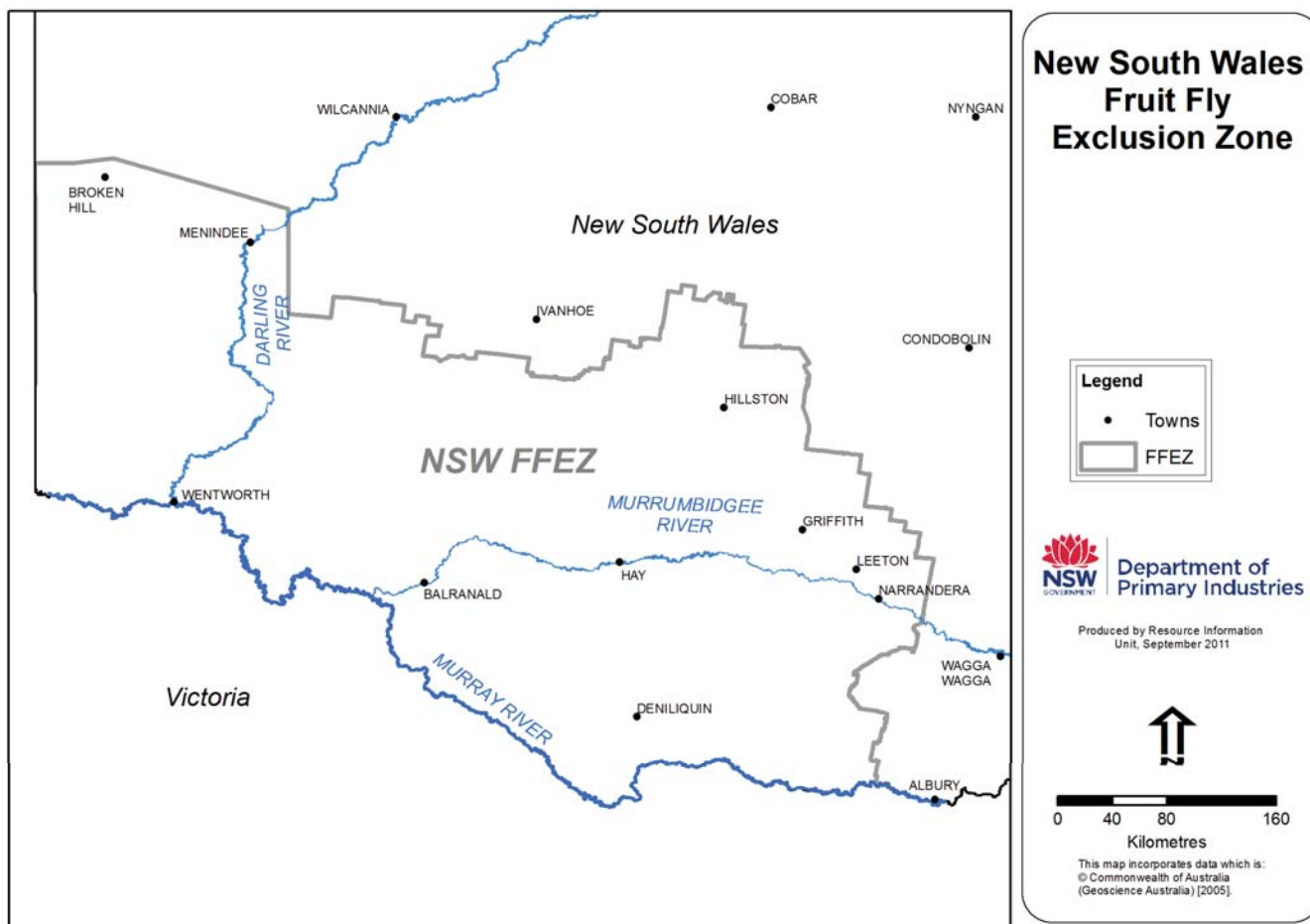
5. Regulation of the movement of host fruit

In pursuance of section 4 (1) of the Act the importation, introduction or bringing of host fruit into specified portions of New South Wales is regulated as follows:

- (1) (a) host fruit from any area outside the NSW FFEZ must not be moved into the NSW FFEZ (excluding the Greater Sunraysia (NSW portion) Pest Free Area) except where:
 - (i) the host fruit is grown and packed in a state or territory or part of a state or territory, for which an area freedom certificate is currently in force and the packaging containing the host fruit is legibly marked with:
 - (A) the name and postcode of the city or town nearest to the locality where the host fruit was grown; and
 - (B) a description of the contents of the package; or
 - (ii) the movement is as specified in Schedule 7 and complies with the relevant conditions of exception set out in Schedule 7; or
 - (b) host fruit from any area outside of the Greater Sunraysia (NSW Portion) Pest Free Area must not be moved into the Greater Sunraysia (NSW Portion) Pest Free Area, except where:
 - (i) the host fruit is grown and packed within the Greater Sunraysia (Victoria Portion) Pest Free Area (excluding any outbreak area) and legibly marked with:
 - (A) the name and postcode of the city or town nearest to the locality where the host fruit was grown; and
 - (B) a description of the contents of the package; or
 - (ii) the movement is as specified in Schedule 7 and complies with the relevant conditions of exception set out in Schedule 7; or
 - (c) host fruit grown and packed within the Greater Sunraysia (NSW Portion) Pest Free Area must not be moved into the NSW FFEZ except where the packaging containing the host fruit is legibly marked with:
 - (i) the name and postcode of the city or town nearest to the locality where the host fruit was grown; and
 - (ii) a description of the contents of the package.
- (2) The movement of any host fruit in accordance with Schedule 7 must be accompanied by a certificate:
 - (a) specifying the origin of the host fruit; and
 - (b) in the case of a Plant Health Certificate, certifying that the host fruit has been treated in the manner specified in Schedule 7; and
 - (c) in the case of a Plant Health Assurance Certificate, certifying that the host fruit originates from a property or facility which is owned or occupied by a business accredited under a Certification Assurance Arrangement; and
 - (3) The movement of host fruit in accordance with Schedule 7 and accompanied by a certificate must, on arrival be:
 - (a) verified by a business accredited under a Certification Assurance Arrangement; or
 - (b) presented to an authorised person for verification.

SCHEDULE 1 – New South Wales Fruit Fly Exclusion Zone

All land in the Local Government Areas of: Balranald, Berrigan, Broken Hill, Carrathool, Conargo, Deniliquin, Griffith, Hay, Jerilderie, Leeton, Murray, Murrumbidgee, Narrandera, Urana, Wakool, Wentworth and, that part of Central Darling Local Government Area, being the area south and west of Balaka Lake, and all of Corowa Local Government Area EXCLUDING that part of Corowa Local Government Area east of a line which commences at the intersection of Lavis Road, County of Hume, Parish of Quat Quatta, Local Government Area of Greater Hume and Carroll Lane, County of Hume, Parish of Quat Quatta, Local Government Area of Corowa, and proceeds in a generally southerly direction along Carroll Lane to where Carroll Lane intersects with the Riverina Highway and then continues along the same bearing as Carroll Lane until the line intersects with the Murray River, and all land in that part of the western unincorporated area of the State south of Stephens Creek.

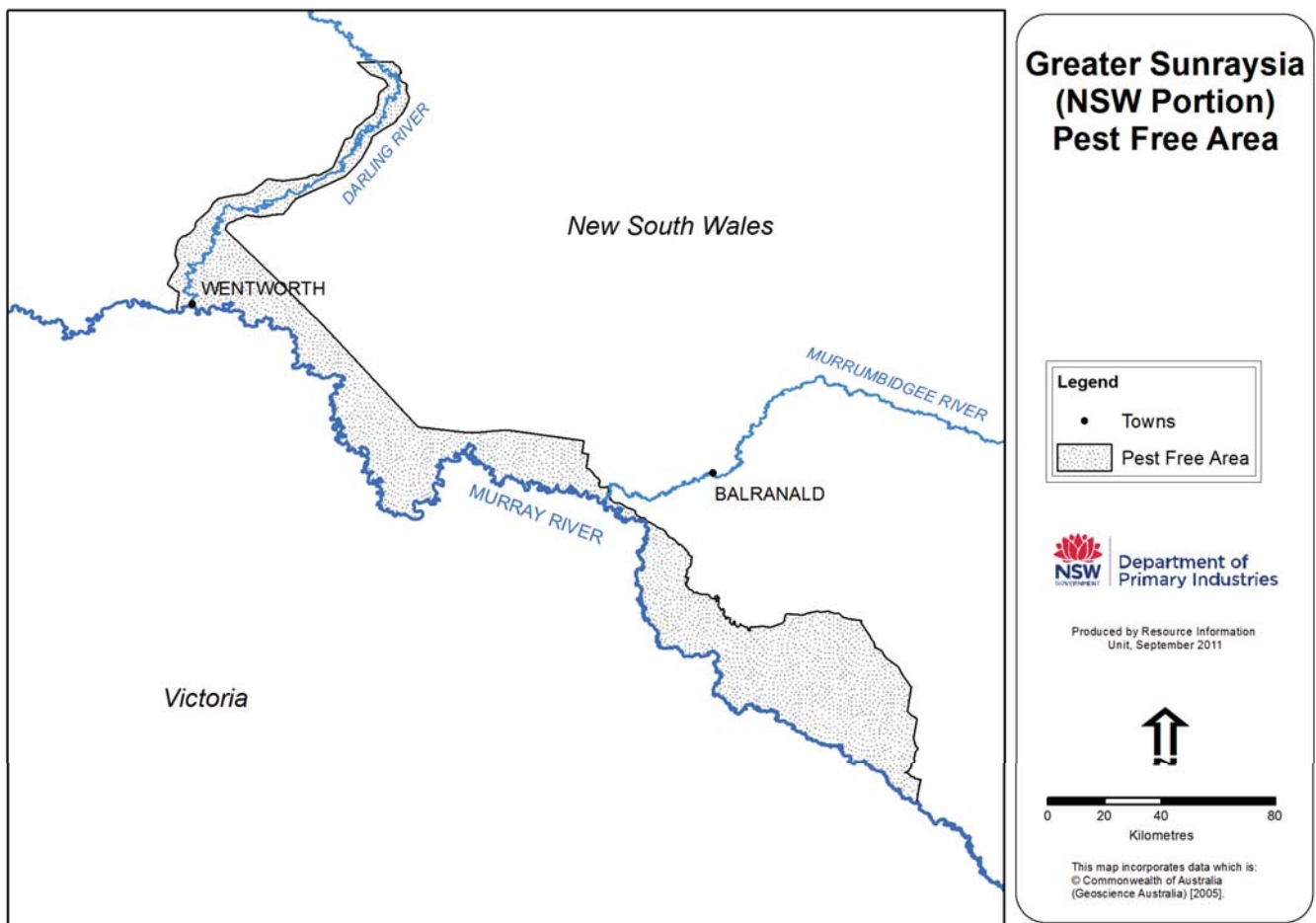


SCHEDULE 2 – Greater Sunraysia (NSW portion) Pest Free Area

The area of land bounded by a line commencing at the intersection of the Murray River and the western boundary of the Parish of Wentworth, County of Wentworth, then in a generally northerly direction by the Parish of Wentworth boundary to its intersection with the Silver City Highway, then in a north westerly direction along the Silver City Highway to the intersection of the Silver City Highway and High Darling Road, then in a north easterly direction along High Darling Road to the intersection of High Darling Road and Polia Road, then in northerly direction along Polia Road to grid line 070 (grid reference 366070, Cuthero), then in a straight line in an easterly direction to Pooncarie – Menindee Road (grid reference 465070 Pooncarie), then in a south easterly direction along Pooncarie – Menindee Road, which becomes Tarcoola Street, which becomes Wentworth – Pooncarie Road, then in a generally south westerly direction along Wentworth – Pooncarie Road to the intersection of Wentworth – Pooncarie Road and an unnamed road (grid reference 943518, Para), then in a south westerly direction along the unnamed road to the intersection with an unnamed road (grid reference 204207, Mildura East), then in a south westerly direction along the unnamed road to the intersection with an unnamed road (grid reference 174111, Mildura East), then in a south easterly direction along the unnamed road to the intersection of the unnamed road and the Sturt Highway (grid reference 230035, Karadoc), then in a south easterly direction along the Sturt Highway to the intersection with an unnamed road (grid reference 537763, Robinvale), then in a northerly direction along the unnamed road to the intersection with an unnamed road (grid reference 547778, Robinvale), then in a generally easterly direction along the unnamed road to the intersection with Leslie Drive (grid reference 604767, Robinvale), then in an easterly direction along Leslie Drive to an intersection with an unnamed road (grid reference 620766, Robinvale), then along the unnamed road to an intersection with an unnamed road (grid reference 627765, Robinvale), then in a south easterly direction along the unnamed road to the intersection with the Sturt Highway (grid reference 631760, Robinvale), then in a generally easterly direction along the Sturt Highway to an intersection with an unnamed road (grid reference 988714, Waldaira Lake), then in a southerly direction along the

unnamed road to the intersection with an unnamed road (grid reference 983675, Waldaira Lake), then in a generally south easterly direction along the unnamed road to the intersection with an unnamed road (grid reference 040600, Waldaira Lake), then in a straight line in a south easterly direction to the intersection of Weimby – Benongal Road and Weimby Road (grid reference 084536, Waldaira Lake), then in a south easterly direction along Weimby Road, which becomes Weimby – Kyalite Road, to the intersection of Weimby – Kyalite Road and an unnamed road (grid reference 256383, Windomal), then in a straight line in a southerly direction to Wakool River (grid reference 256348, Windomal), then in a south easterly direction along Wakool River to the intersection of Wakool River and Moulamein Road, then in a generally easterly direction along Moulamein Road, to the intersection with the Moulamein Barham Road, then in a generally south westerly direction along the Moulamein Barham Road to its intersection with the northern boundary of the Parish of Barham, County of Wakool, then in a generally south easterly direction along the eastern boundary of the Parish of Barham to its intersection with the Murray River, then in a generally north westerly direction along the Murray River to the point of commencement.

- ‘Cuthero’ 1:100,000 Topographic Map 7331
- ‘Karadoc’ 1:50,000 Topographic Map 7329-S
- ‘Mildura East’ 1:50,000 Topographic Map 7329-N
- ‘Para’ 1:100,000 Topographic Map 7330
- ‘Pooncarie’ 1:100,000 Topographic Map 7431
- ‘Robinvale’ 1:50,000 Topographic Map 7428-N
- ‘Waldaira Lake’ 1:50,000 Topographic Map 7528-N
- ‘Windomal’ 1:50,000 Topographic Map 7528-S



SCHEDULE 3 – Host fruit

Acerola	Feijoa	Passionfruit
Apple	Fig	Papaya
Apricot	Granadilla	Peach
Avocado	Grape	Peacharine
Babaco	Grapefruit	Pear
Banana	Guava	Pepino
Black sapote	Hog plum	Persimmon
Blackberry	Jaboticaba	Plum
Blueberry	Jackfruit	Plumcot
Boysenberry	Jew plum	Pomegranate
Brazil cherry (Grumichama)	Ju jube	Prickly pear
Breadfruit	Kiwifruit	Pummelo (Pomelo)
Caimito (Star apple)	Lemon	Quince
Cape gooseberry	Lime	Rambutan
Capsicum	Loganberry	Raspberry
Carambola (Starfruit)	Longan	Rollinia
Cashew Apple	Loquat	Rose apple
Casimiro (White sapote)	Lychee (Litchi)	Santol
Cherimoya	Mandarin	Sapodilla
Cherry	Mango	Shaddock
Chilli	Mangosteen	Soursop
Citron	Medlar	Sweetsop (Sugar apple)
Cumquat	Miracle fruit	Strawberry
Custard apple	Mulberry	Tamarillo
Date	Nashi	Tangelo
Durian	Nectarine	Tomato
Eggplant	Orange	Wax jambus

SCHEDULE 4 – Host fruit classified as “Assorted tropical and sub-tropical fruits – inedible peel”

Avocado	Granadilla	Papaya
Banana	Guava (inedible peel varieties only)	Persimmon (inedible peel varieties only)
Black sapote	Jackfruit	Pomegranate
Breadfruit	Kiwifruit (inedible peel varieties only)	Prickly pear
Caimito (Star apple)	Longan	Rambutan
Casimiro (White sapote)	Lychee (Litchi)	Sapodilla
Cherimoya	Mango	Soursop
Custard apple	Mangosteen	Sweetsop (Sugar apple)
Durian	Passionfruit	Wax jambus
Feijoa		

SCHEDULE 5 – Host fruit classified as “Citrus fruits”

Citron	Lime	Pummelo (Pomelo)
Grapefruit	Mandarin	Shaddock
Lemon	Orange	Tangelo

SCHEDULE 6 – Host fruit classified as “Fruiting vegetables, other than cucurbits”

Gape gooseberry	Chilli	Pepino
Capsicum	Eggplant	Tomato

SCHEDULE 7 – Exceptions for movement of host fruit

Host fruit grown and packed under area freedom

1. Movement of host fruit from an area demonstrated as free from Queensland fruit fly, subject to the following conditions:
 - (a) Prior to movement, the owner or occupier of the property or facility where the host fruit originates must ensure that:
 - (i) any used packaging or coverings containing host fruit are free of soil, plant residues and other organic matter; and
 - (ii) any previous incorrect information displayed on the outer covering of the package is removed and the outer covering is legibly marked with the following information:
 - (A) the district of production; and

- (B) the name, address, postcode and the State or Territory of both the grower and the packer; or where the packer is sourcing from multiple growers, the name, address, postcode and the State or Territory of the packer; and
 - (C) a brief description of the contents of the package;
- or
- (iii) where the property or facility is owned or occupied by a business accredited under a Certification Assurance Arrangement, the host fruit is packed, labelled and certified in accordance with any conditions prescribed in the Certification Assurance Arrangement.

Note: The Certification Assurance Arrangement for the purposes of this clause is ICA-23 Certification of Area or Property Freedom Based on Monitoring by the Accrediting Authority.

Host fruit that has received an approved treatment

2. Movement of host fruit that has received an approved treatment prior to movement, subject to the following conditions:
- (a) The owner or occupier of the property or facility from which the host fruit originates must ensure that the host fruit remains under secure conditions from post harvest to the time of dispatch and transport which prevent infestation by Queensland fruit fly; and
 - (b) Prior to movement, the owner or occupier of the property or facility where the host fruit is packed must ensure that:
 - (i) any used packaging or coverings containing host fruit are free of soil, plant residues and other organic matter; and
 - (ii) in the case of host fruit that has been consigned:
 - (A) as a lot for the purpose of producing smaller packs of host fruit and has been repacked in smaller packs; or
 - (B) as a packed lot for the purpose of producing composite lots, the host fruit has been received, handled, stored and repacked under secure conditions which prevent infestation by Queensland fruit fly; and
 - (iii) any individual package contains only one kind of host fruit; and
 - (iv) any previous incorrect information displayed on the outer covering of the package is removed and the outer covering is legibly marked with the following information:
 - (A) the district of production; and
 - (B) the name, address, postcode and the State or Territory of both the grower and the packer; or where the packer is sourcing from multiple growers, the name, address, postcode and the State or Territory of the packer; and
 - (C) a brief description of the contents of the package;
 - (v) where the property or facility is owned or occupied by a business accredited under a Certification Assurance Arrangement, the host fruit is packed, labelled and certified in accordance with any conditions prescribed in the Certification Assurance Arrangement.

Host fruit grown and packed in accordance with an approved systems approach

3. Movement of host fruit that has been grown and packed in accordance with an approved systems approach, subject to the following conditions:
- (a) The owner or occupier of the property or facility from which the host fruit originates must ensure that the host fruit remains under secure conditions from post harvest to the time of dispatch and transport which prevent infestation by Queensland fruit fly; and
 - (b) Prior to movement, the owner or occupier of the property or facility where the host fruit is packed must ensure that:
 - (i) any used packaging or coverings containing host fruit are free of soil, plant residues and other organic matter; and
 - (ii) in the case of host fruit that has been consigned:
 - (A) as a lot for the purpose of producing smaller packs of host fruit and has been repacked in smaller packs; or
 - (B) as a packed lot for the purpose of producing composite lots, the host fruit has been received, handled, stored and repacked under secure conditions which prevent infestation by Queensland fruit fly; and
 - (iii) any individual package contains only one kind of host fruit; and
 - (iv) all previous incorrect information displayed on the outer covering of the package is removed and the outer covering is legibly marked with the following information:
 - (A) the district of production; and
 - (B) the name, address, postcode and the State or Territory of both the grower and the packer; or where the packer is sourcing from multiple growers, the name, address, postcode and the State or Territory of the packer; and
 - (C) a brief description of the contents of the package;
- or

- (v) where the property or facility is owned or occupied by a business accredited under a Certification Assurance Arrangement, the host fruit is packed, labelled and certified in accordance with any conditions prescribed in the Certification Assurance Arrangement.

Untreated host fruit for processing

4. Movement of untreated host fruit for processing, subject to the following conditions:
 - (a) The owner or occupier of the property or facility from which the host fruit originates must ensure that the host fruit remains under secure conditions from post harvest to the time of dispatch and transport which prevent infestation by Queensland fruit fly; and
 - (b) Prior to movement, the owner or occupier of the property or facility from which the host fruit originates must ensure:
 - (i) all bins or containers and any vehicles to be used for the transportation of host fruit (“transport vehicle”) are free from all plant debris and soil prior to packing and loading; and
 - (ii) the host fruit is securely covered by a tarpaulin, shade cloth, bin cover or other covering or contained within the transport vehicle so as to prevent infestation by Queensland fruit fly and spillage during transportation; and
 - (iii) the transport vehicle is free of all soil and plant debris after loading; and
 - (iv) the transport vehicle travels by the most direct route to the receiving processor; and
 - (c) The owner or occupier of the property or facility at which the host fruit is to be processed must ensure:
 - (i) the host fruit is processed within 24 hours of receipt; and
 - (ii) all measures to avoid spillage of host fruit are taken and where spillages occur, are disposed of in a manner generally accepted as likely to prevent the spread of Queensland fruit fly; and
 - (iii) all processing wastes are disinfested by heat or freezing or be buried.

Note: An approved certification assurance arrangement is ICA-33 Movement of Wine Grapes.

SCHEDULE 8 – Approved treatments for host fruit

Dimethoate Dip

1. Host fruit classified as “Assorted tropical and sub-tropical fruits – inedible peel” (excluding black sapote, breadfruit, jackfruit, longan, defective flower-end type papaya, mango, custard apple, cherimoya, soursop, sweetsop and other *Annona* spp.), abiu, rollinia, santol, and tamarillo:
 - (a) treated postharvest by full immersion in a dip containing 400 mg/L dimethoate for:
 - (i) a period of 1 minute; or
 - (ii) in the case of passionfruit, dipping for a period of 10 seconds provided the fruit remains wet for a further 60 seconds; and
 - (b) dipping must be the final treatment before packing.
2. Host fruit classified as “Citrus fruits”:
 - (a) treated postharvest by full immersion in a dip containing 400 mg/L dimethoate for a period of 1 minute; and
 - (b) dipping must be the final treatment before packing, except where a non-recovery gloss coating (wax) and/or compatible fungicide may be added within 24 hour of treatment.
3. Mangoes (Kensington Pride, Calypso, R2E2 and Honey Gold varieties only):
 - (a) a sample of the lot inspected before treatment and found free of fruit fly larvae; and
 - (b) treated postharvest by full immersion in a dip containing 400 mg/L dimethoate for a period of 1 minute; and
 - (c) dipping must be the final treatment before packing.

Note: The approved Certification Assurance Arrangement is ICA-01 Dipping with dimethoate or fenthion.

Dimethoate Flood Spray

4. Host fruit classified as “Assorted tropical and sub-tropical fruits – inedible peel” (excluding black sapote, breadfruit, jackfruit, longan, defective flower-end type papaya, mango, custard apple, cherimoya, soursop, sweetsop and other *Annona* spp.), abiu, rollinia, santol, and tamarillo:
 - (a) treated postharvest by flood spraying in a single layer with a mixture containing 400 mg/L dimethoate at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the fruit for a minimum of 10 seconds after which the fruit must remain wet for a further 60 seconds; and
 - (b) spraying must be the last treatment before packing.
5. Host fruit classified as “Citrus fruits”:
 - (a) treated postharvest by flood spraying in a single layer with a mixture containing 400 mg/L dimethoate at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the fruit for a minimum of 10 seconds after which the fruit must remain wet for a further 60 seconds; and
 - (b) spraying must be the final treatment before packing, except where a non-recovery gloss coating (wax) and/or compatible fungicide may be added within 24 hour of treatment.

6. Mangoes (Kensington Pride, Calypso, R2E2 and Honey Gold varieties only):
- a sample of the lot is inspected before treatment and found free of fruit fly larvae; and
 - treated postharvest by flood spraying in a single layer with a mixture containing 400 mg/L dimethoate with a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the fruit for a minimum of 10 seconds after which the fruit must remain wet for a further 60 seconds; and
 - spraying must be the final treatment before packing.
- Note: The approved Certification Assurance Arrangement is ICA-02 Flood spraying with dimethoate or fenthion.

Fenthion Dip

7. Host fruit classified as “Assorted tropical and sub-tropical fruits – inedible peel” (excluding caimito, mango, custard apple, cherimoya, soursop, sweetsop and other *Annona* spp. and defective flower-end type papaya):
- treated postharvest by full immersion in a dip mixture containing 412.5 mg/L fenthion for:
 - a period of 1 minute; or
 - in the case of longan, lycee, passionfruit and rambutan, dipping for a period of 10 seconds provided the fruit remains wet for a further 60 seconds; and
 - dipping must be the last treatment before packing.
8. Host fruit classified as “Fruiting vegetables, other than cucurbits” (excluding hollow fruited capsicums and chillies):
- treated postharvest by full immersion in a dip mixture containing 412.5 mg/L fenthion for a period of 1 minute; and
 - dipping must be the last treatment before packing.
9. Mangoes (Kensington Pride, Calypso, R2E2 and Honey Gold varieties only):
- a sample of the lot inspected before treatment and found free of fruit fly larvae; and
 - treated postharvest by full immersion in a dip containing 412.5 mg/L fenthion for a period of 1 minute; and
 - dipping must be the final treatment before packing.
- Note: The approved Certification Assurance Arrangement is ICA-01 Dipping with dimethoate or fenthion.

Fenthion Flood Spray

10. Host fruit classified as “Assorted tropical and sub-tropical fruits – inedible peel” (excluding mango, custard apple, cherimoya, soursop, sweetsop and other *Annona* spp. and defective flower-end type papaya):
- treated postharvest by flood spraying, in a single layer with a mixture containing 412.5 mg/L fenthion at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds; and
 - spraying must be the last treatment before packing.
11. Host fruit classified as “Fruiting vegetables, other than cucurbits”:
- treated postharvest by flood spraying, in a single layer with a mixture containing 412.5 mg/L fenthion at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds; and
 - spraying must be the last treatment before packing.
12. Mangoes (Kensington Pride, Calypso, R2E2 and Honey Gold varieties only):
- a sample of the lot inspected before treatment and found free of fruit fly larvae; and
 - treated postharvest by flood spraying in a single layer with a mixture containing 412.5 mg/L fenthion at a rate of at least 16 L/minute/ m² of the area being flood sprayed, providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds; and
 - spraying must be the final treatment before packing.
- Note: The approved Certification Assurance Arrangement is ICA-02 Flood spraying with dimethoate or fenthion

Fenthion Non-Recirculating Spray

13. Avocados treated in a single layer non-recirculating system with a mixture containing 412.5 mg/L fenthion at a rate of at least 0.6 L/minute/m², providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds.
14. Mangoes (Kensington Pride, Calypso, R2E2 and Honey Gold varieties only):
- a sample of the lot inspected before treatment and found free of fruit fly larvae; and
 - treated in a single layer non-recirculating system with a mixture containing 412.5 mg/L fenthion at a rate of at least 1.2 L/minute/m², providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds.
- Note: The approved Certification Assurance Arrangement is ICA-03 Low volume non-recirculated spraying with fenthion.

Methyl Bromide Fumigation

15. Any host fruit:
- (a) fumigated postharvest with a fumigant containing 1000 g/kg methyl bromide as its only active constituent for 2 hours at the following rates:
 - (i) 10.0°C – 14.9°C at 48 g/m³; or
 - (ii) 15.0°C – 20.9°C at 40 g/m³; or
 - (iii) 21.0°C + at 32 g/m³; and
 - (b) in the case of defective flower end-type papaya, is in a mature green condition.
- Note: The approved Certification Assurance Arrangement is ICA-04 Fumigating with methyl bromide.

Post harvest Cold Treatment

16. Any host fruit (excluding lemons), treated postharvest at a temperature of:
- (a) 0°C ± 0.5°C for a minimum of 14 days; or
 - (b) 1.0°C ± 0.5°C to 3.0°C ± 0.5°C for a minimum of 16 days.
17. Lemons treated post harvest at a temperature of 0.0°C ± 0.5°C to 3.0°C ± 0.5°C for a minimum of 14 days.
- Note: The approved Certification Assurance Arrangement is ICA-07 Cold treatment.

Hot Water Treatment

18. Mangoes treated by full immersion in hot water at a temperature of 46.0°C for a minimum of 10 minutes, as measured in the water and at or as near as practicable to the seed of 3 fruits.
- Note: The approved Certification Assurance Arrangement is ICA-10 Hot water treatment of mangoes.

High Temperature Forced Air

19. Papaya treated in a hot air chamber, at a temperature of 47.2°C for at least 3.5 hours as measured in the seed cavity.

Vapour Heat Treatment

20. Mangoes treated by vapour heat at a temperature of:
- (a) 46.5°C for 20 minutes; or
 - (b) 47.0°C for 15 minutes.
- Note: The approved Certification Assurance Arrangement is ICA-05 Vapour heat treatment of mangoes under AQIS supervision.

Gamma Irradiation

21. Any host fruit approved for irradiation by the Food Standards Australia New Zealand (FSANZ) treated post harvest with gamma irradiation at a minimum dose of 150Gy.
- Note: The approved Certification Assurance Arrangement is ICA-55 Irradiation treatment.

Mature green condition

22. Black sapote, passionfruit and Tahitian lime harvested and packed in a mature green condition.
- Note: The approved Certification Assurance Arrangement is ICA-15 Mature green condition of passionfruit, Tahitian limes and black sapotes.
23. Banana harvested and packed in a mature green condition.
- Note: The approved Certification Assurance Arrangement is ICA-16 Certification of mature green condition of bananas.

Immature green condition

24. Papaya (excluding defective flower-end type papaya) and babaco harvested and packed in an immature green condition.
- Note: The approved Certification Assurance Arrangement is ICA-08 Mature green condition and immature green condition of papaw and babaco.

Hard Green condition

25. Bananas (Cavendish variety only) in a hard green condition at the time of packing.
- Note: The approved Certification Assurance Arrangement is ICA-06 Certification of hard green bananas.
26. Avocados (Hass and Lamb Hass cultivars only) harvested in a hard condition and stored in secured conditions within 24 hours of harvest.
- Note: The approved Certification Assurance Arrangement is ICA-30 Hard condition of avocado for Mediterranean fruit fly and Queensland fruit fly.

Unbroken skins

27. Durian, jaboticaba, jackfruit, longan, lychee, mangosteen, pomegranate and rambutan harvested and packed with unbroken skin.
- Note: The approved certification assurance arrangement is ICA-13 Unbroken skin condition of approved fruits.

SCHEDULE 9 – Approved systems approaches for host fruit

Pre-harvest treatment and inspection

1. Capsicums and chillies:
 - (a) treated pre-harvest with dimethoate or fenthion in accordance with all label and APVMA permit directions for the in-field control of Queensland fruit fly; and
 - (b) inspected postharvest, where a sample of the lot is inspected and found free of fruit fly.
Note: The approved Certification Assurance Arrangement is ICA-26 Pre-harvest treatment and postharvest inspection of tomatoes, capsicums, chillies and eggplant.
2. Eggplants:
 - (a) treated pre-harvest with a program of cover sprays with a chemical containing 500 g/L trichlorfon applied a minimum of 21 days prior to harvest in accordance with all label and APVMA permit directions for the control of Queensland fruit fly; and
 - (b) inspected postharvest, where a sample of the lot is inspected and found free of fruit fly.
Note: The approved Certification Assurance Arrangement is ICA-26 Pre-harvest treatment and postharvest inspection of tomatoes, capsicums, chillies and eggplant.
3. Tomatoes:
 - (a) treated pre-harvest with a program of cover sprays with a chemical containing:
 - (i) 500 g/L fenthion; or
 - (ii) 500 g/L trichlorfon applied a minimum of 21 days prior to harvest, in accordance with all label and APVMA permit directions for the control of Queensland fruit fly; and
 - (b) inspected postharvest, where a sample of the lot is inspected and found free of fruit fly.
Note: The approved Certification Assurance Arrangement is ICA-26 Pre-harvest treatment and postharvest inspection of tomatoes, capsicums, chillies and eggplant.
4. Blueberries:
 - (a) treated pre-harvest with a program of cover sprays with a chemical containing:
 - (i) 400 g/L dimethoate every 21 days; or
 - (ii) 500 g/L trichlorfon, in accordance with all label and APVMA permit directions for the control of Queensland fruit fly; and
 - (b) sampled and inspected postharvest and found free of fruit fly larvae.
Note: The approved Certification Assurance Arrangements are ICA-31 Pre-harvest insecticide treatment of blueberries and ICA-21 Pre-harvest treatment and inspection of stonefruit, pome fruit and blueberries.
5. Stonefruit:
 - (a) treated pre-harvest with a program of cover sprays with a chemical containing:
 - (i) 500 g/L fenthion; or
 - (ii) 500 g/L trichlorfon applied a minimum of 21 days prior to harvest, in accordance with all label and APVMA permit directions for the control of Queensland fruit fly; and
 - (b) inspected postharvest at the rate of 1 package in every 100 and found free of fruit fly larvae and broken skins.
Note: The approved Certification Assurance Arrangement is ICA-21 Pre-harvest treatment and inspection of stonefruit, pome fruit and blueberries.
6. Pomefruit:
 - (a) treated pre-harvest with a program of cover sprays with a chemical containing 500 g/L trichlorfon in accordance with all label directions for the control of fruit fly; and
 - (b) inspected postharvest at the rate of 1 package in every 100 and found free of fruit fly larvae and broken skins.
Note: The approved Certification Assurance Arrangement is ICA-21 Pre-harvest treatment and inspection of stonefruit, pome fruit and blueberries.
7. Table grapes:
 - (a) treated pre-harvest with a program of:
 - (i) bait sprays applied to every alternate row of vines at the rate of at least 100 mL per 8 m of vine, at a maximum interval of 7 days commencing 6 weeks prior to harvest to the completion of harvest with:
 - (A) an insecticide containing 15.4 L of 0.24 g/L spinosad per 100 L of water; or
 - (B) a mixture containing 2 L yeast autolysate protein and 435 mL of 1150 g/L maldison per 100 L of water; or
 - (ii) cover sprays applied to all vines:
 - (A) at a maximum interval of 14 days commencing at least 5 weeks prior to harvest with a mixture containing 75 mL of 550 g/L fenthion per 100 L of water; or
 - (B) with a chemical containing 500 g/L trichlorfon in accordance with all label and APVMA permit directions for the control of Queensland fruit fly; and

- (b) inspected postharvest where a sample of the fruit is inspected and found free of fruit fly larvae.

Note: The approved Certification Assurance Arrangement is ICA-20 Preharvest treatment and inspection of grapes.

Pre-harvest treatment and inspection, and post harvest treatment

8. Custard apple, cherimoya, soursop, sweetsop and other Annona spp:

- (a) treated pre-harvest with a program of:

- (i) cover sprays applied to all host fruit trees at a maximum interval of 14 days commencing 6 weeks prior to harvest to the completion of harvest with a mixture containing 75 mL of 550 g/L fenthion per 100 L of mixture; or
- (ii) bait sprays applied at the rate of at least 100 mL to all host fruit trees at a maximum interval of 7 days commencing 6 weeks prior to harvest to the completion of harvest with a mixture containing:
- (A) 2 L yeast autolysate protein and 435 mL of 1150 g/L maldison per 100 L of water; or
- (B) 2 L yeast autolysate protein and 780 mL of 500 g/L trichlorfon per 100 L of water; or
- (C) 15.4 L of 0.24 g/L spinosad per 100 L of water; and

- (b) inspected post harvest where a sample of the lot is inspected and found free of fruit fly larvae and broken skins; and

- (c) treated postharvest (final treatment before packing):

- (i) by full immersion for a period of 1 minute in a dip containing:
- (A) 400 mg/L dimethoate; or
- (B) 412.5 mg/L fenthion; or
- (ii) by flood spraying in a single layer at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the fruit for a minimum of 10 seconds after which the fruit must remain wet for a further 60 seconds with a mixture containing:
- (A) 400 mg/L dimethoate; or
- (B) 412.5 mg/L fenthion.

Note: The approved Certification Assurance Arrangement is ICA-18 Treatment and inspection of custard apple and other Annona spp., in conjunction with ICA-01 Dipping with dimethoate or fenthion or ICA-02 Flood spraying with dimethoate or fenthion,.

9. Mangoes (excluding Kensington Pride, Calypso, R2E2 and Honey Gold varieties):

- (a) treated preharvest with a program of:

- (i) cover sprays applied to all host fruit trees at a maximum interval of 14 days commencing 6 weeks prior to harvest to the completion of harvest with a mixture containing:
- (A) 75 mL of 550 g/L fenthion per 100 L of mixture; or
- (B) 75 mL of 400 g/L dimethoate per 100 L of mixture; or
- (ii) bait sprays applied at the rate of at least 100 mL to all host fruit trees at a maximum interval of 7 days commencing 6 weeks prior to harvest to the completion of harvest with a mixture containing:
- (A) 15.4 L of 0.24 g/L spinosad per 100 L of water; or
- (B) 2 L yeast autolysate protein and 435 mL of 1150 g/L maldison per 100 L of water; and

- (b) postharvest inspected where a sample of the lot is inspected and found free of fruit fly larvae; and

- (c) treated postharvest (final treatment prior to packing):

- (i) by full immersion for a period of 1 minute in a dip containing:
- (A) 400 mg/L dimethoate; or
- (B) 412.5 mg/L fenthion; or
- (ii) by flood spraying in a single layer at a rate of at least 16 L/minute/m² of the area being flood sprayed, providing complete coverage of the fruit for a minimum of 10 seconds after which the fruit must remain wet for a further 60 seconds with a mixture containing:
- (A) 400 mg/L dimethoate; or
- (B) 412.5 mg/L fenthion,
- (iii) in a single layer non-recirculating system with a mixture containing 412.5 mg/L fenthion at a rate of at least 1.2 L/minute/m², providing complete coverage of the host fruit for a minimum of 10 seconds after which the host fruit must remain wet for a further 60 seconds.

Note: The approved Certification Assurance Arrangement is ICA-19 Treatment and inspection of mangoes, in conjunction with ICA-01 Dipping with dimethoate or fenthion or ICA-02 Flood spraying with dimethoate or fenthion or ICA-03 Low volume non-recirculated spraying with fenthion.

Fruit fly monitoring, preharvest baiting, and postharvest inspection

10. Citrus fruits (excluding Meyer lemons) grown in the west of the coastal ranges and south of latitude 22 south and harvested during the period 1 March to 25 August inclusive:

- (a) treated with a program of bait sprays applied to all host fruit trees in accordance with all label requirements at a maximum interval of 7 days commencing 12 weeks prior to harvest to the completion of harvest with:

- (i) a mixture containing 2 L yeast autoylsate protein; and

- (A) 435 mL of 1150 g/L maldison per 100 L of water; or
 - (B) 400 g of 500 g/kg chlorpyrifos per 100 L of water; or
 - (C) 400 mL of 500 g/L chlorpyrifos per 100 L of water; or
 - (D) 780 mL of 500 g/L trichlorofon per 100 L of water; or
- (ii) a mixture containing 15.4 L of spinosad per 100 L of water; and
- (b) treated with a program of fruit fly trapping and monitoring using at least 2 Lynfield or approved equivalent traps, placed so that every tree within the orchard is within 400 m of a trap, which are inspected at least every 7 days and found free of fruit flies; and
- (c) post harvest inspected where a sample of the lot is inspected after packing and found free of fruit fly larvae.
- Note: The approved Certification Assurance Arrangement is ICA-28 Preharvest treatment (bait spraying) and inspection of citrus.
11. Host fruit grown and packed within a declared Queensland fruit fly Suspension Area (excluding the Outbreak Area) which is under an active eradication program:
- (a) treated with a program of fruit fly trapping and monitoring with at least one fruit fly trap installed on the property, monitored in accordance with the Code of Practice for the Management of Queensland fruit fly; and
- (b) treated with a program of bait sprays applied:
- (i) a minimum of two weeks prior to harvest to the completion of harvest; and
 - (ii) to all host fruit trees with fruit at a stage susceptible to Queensland fruit fly (unless receiving an alternative program of cover sprays), and
 - (iii) in accordance with all label and APVMA permit directions; and
 - (iv) with a mixture containing:
 - (A) 435 mL of 1150 g/L maldison with 2 litres of yeast autolysate protein lure per 100 litres of water; or
 - (B) 15.4 L of 0.24 g/L spinosad per 100 L of water; and
- (d) post harvest inspected in accordance with the specification of ICA-56 Pre-harvest baiting and inspection protocol for Pest Free Areas. and found free of fruit fly infestation.
- Note: The approved Certification Assurance Arrangement is ICA-56 Preharvest baiting and inspection protocol for Pest Free Areas.

Dated this 7th day of October 2011.

SATENDRA KUMAR,
Director, Plant Biosecurity
Department of Trade and Investment, Regional Infrastructure and Services

Note: The Department's reference is O-375.

LANDS

GOULBURN OFFICE

159 Auburn Street (PO Box 748), Goulburn NSW 2580

Phone: (02) 4824 3700 Fax: (02) 4822 4287

ERRATUM

THE notifications appearing in the *New South Wales Government Gazette* of 23 September 2011, Folio 5581, under the "Goulburn Office" heading should have also contained the following notification.

WITHDRAWAL OF RESERVE FROM CONTROL OF LIVESTOCK HEALTH AND PEST AUTHORITY

PURSUANT to section 86 (1) of the Rural Lands Protection Act 1998, the land described in Column 1 of the Schedule hereunder, is removed from the care, control and management of the Tablelands Livestock Health and Pest Authority to the extent specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Land District: Goulburn. Local Government Area: Goulburn Mulwaree Council. Locality: Bungonia. Reserve No.: 39356. Public Purpose: Travelling stock and camping. Notified: 1 July 1905. Responsible Authority: Tablelands Livestock Health and Pest Authority. Placed under Authority's Control: 29 May 1959. File No.: 10/03644.	The whole being Lots 102 and Part 101, DP 1167749, Parish Jerrara, County Argyle (previously Lot 7006, DP 1002591), of an area of 5.265 hectares.

Note: The reservation specified in the Schedule is correspondingly revoked this day.

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

Description

*Parish – Rivers; County – Beresford;
Land District – Cooma;
L.G.A. – Cooma-Monaro Shire Council*

Lot 50, DP 1163162 (not being land under the Real Property Act and subject to easement for right of carriageway by Deposited Plan 1163162).

File No.: GB05 H 180:BA.

Schedule

On closing, the title for the land in Lot 50, DP 1163162 remains vested in the State of New South Wales as Crown Land.

GRAFTON OFFICE
76 Victoria Street (PO Box 272), Grafton NSW 2460
Phone: (02) 6640 3400 Fax: (02) 6640 5372

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder, are appointed for the terms of office specified, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Debra McQUEEN (re-appointment). Lesley Louise McQUEEN (new member). Daniel Watson PARKER (re-appointment). Keith Warren PARKER (new member). Margaret Anne WEAVER (new member). Myra Jean PARKER (new member). Margaret Anne CULLEN (re-appointment).	Lynch's Creek (R86485) Reserve Trust.	Reserve No.: 86485. Public Purpose: Public recreation. Notified: 27 October 1967 File No.: GF02 R 31.

Term of Office

For a term commencing the date of this notice and expiring 13 October 2016.

DECLARATION OF LAND TO BE CROWN LAND

PURSUANT to section 138 of the Crown Lands Act 1989, the land described in the Schedule hereunder, is declared to be Crown Land within meaning of that Act.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

Land District – Lismore;
Local Government Area – Ballina;
Parish – Ballina; County – Rous

Lot 4, DP 1153430 of 1.807 hectares at Ballina being land in the possession of the Minister for Education.

File No.: 08/10627.

ADDITION TO RESERVED CROWN LAND

PURSUANT to section 88 of the Crown Lands Act 1989, the Crown Land specified in Column 1 of the Schedule hereunder, is added to the reserved land specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Land District: Lismore. Local Government Area: Ballina Shire Council. Locality: Ballina. Lot 4, DP No. 1153430, Parish Ballina, County Rous. Area: 1.807 hectares. File No.: 08/10627.	Reserve No.: 83963. Public Purpose: Public recreation. Notified: 24 August 1962. New Area: 13.137 hectares.

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

Description

Land District – Murwillumbah; LGA – Tweed
 Road Closed: Lot 1, DP 1161983 at Sleepy Hollow, Parish
 Mooball, County Rous.
 File Reference: GF05H594

Schedule

On closing, the land within Lot 1, DP 1161983 remains vested in the State of New South Wales as Crown land.

NOWRA OFFICE
5 O'Keefe Avenue (PO Box 309), Nowra NSW 2541
Phone: (02) 4428 9100 Fax: (02) 4421 2172

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

Description

Parish – Wyndham; County – Auckland;
Land District – Bega;
Local Government Area – Bega Valley

Road Closed: Lots 1 and 2, DP 1168974 at Wyndham.
File No.: 10/06979.

Schedule

On closing, the land within Lots 1 and 2, DP 1168974 remains vested in the State of New South Wales as Crown Land.

Description

Parishes – Kiamma and Pejar;
Counties – Georgiana and Argyle;
Land District – Crookwell;
Local Government Area – Upper Lachlan Shire

Road Closed: Lot 1, DP 1166210 at Crookwell.
File No.: 07/5945.

Schedule

On closing, the land within Lot 1, DP 1166210 remains vested in the State of New South Wales as Crown Land.

SYDNEY METROPOLITAN OFFICE
Level 12, Macquarie Tower, 10 Valentine Avenue, Parramatta 2150
(PO Box 3935, Parramatta NSW 2124)
Phone: (02) 8836 5300 Fax: (02) 8836 5365

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

Description

*Parish – Dalton; County – King;
 Land District – Gunning; L.G.A. – Upper Lachlan Shire*

Lots 1 and 2, DP 1168310 (not being land under the Real Property Act).

File No.: GB05 H 732.

Schedule

On closing, the title for the land in Lots 1 and 2, DP 1168310 remains vested in the State of New South Wales as Crown Land.

ORDER – AUTHORISATION OF ADDITIONAL PURPOSE UNDER S121A

PURSUANT to section 121A of the Crown Lands Act 1989, I authorise by this Order, the purpose specified in Column 1 to be an additional purpose to the declared purpose of the reserves specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
PUBLIC RECREATION	Reserve No. 7495 Public Purpose: Access, other public purposes Notified: 6 October 1888 File Reference: 11/08292

ESTABLISHMENT OF RESERVE TRUST

PURSUANT to section 92 (1) of the Crown Lands Act 1989, the reserve trust specified in Column 1 of the Schedule hereunder is established under the name stated in that Column and is appointed as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Parkes Road Reserve (7495) Reserve Trust	Reserve No. 7495 Public Purpose: Access, other public purposes Notified: 6 October 1888 File Reference: 11/08292

APPOINTMENT OF CORPORATION TO MANAGE RESERVE TRUST

PURSUANT to section 95 of the Crown Lands Act 1989, the corporation specified in Column 1 of the Schedule hereunder is appointed to manage the affairs of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserve referred to in Column 3 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Warringah Council	Parkes Road Reserve (7495) Reserve Trust	Reserve No. 7495 Public Purpose: Access other public purposes Notified: 6 October 1888 File Reference: 11/08292

Term of Office

For a term commencing the date of this notice

ASSIGNMENT OF NAME TO A RESERVE TRUST

PURSUANT to clause 4 (3) of Schedule 8 of the Crown Lands Act 1989 the names specified in Column 1 of the Schedule hereunder is assigned to the reserve trusts constituted as trustees of the reserves specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Allambie Heights Boy Scouts (R100069) Reserve Trust	Reserve No. 100069 Public Purpose: Boy Scouts Notified: 7 November 1986 File Reference: MN86R105
Avalon Kindergarten (R100210) Reserve Trust	Reserve No. 100210 Public Purpose: Kindergarten Notified: 8 December 1989 File Reference: MN88R53
Artarmon Girl Guides (R87644) Reserve Trust	Reserve No. 87644 Public Purpose: Girl Guides Notified: 30 January 1970 File Reference: 11/11857

ERRATUM

IN the notification appearing in the *New South Wales Government Gazette* of 12 September 1997, Folio 7909 and 15 July 2005, Folio 3753, under the heading "DECLARATION OF LAND TO BE CROWN LAND" delete "is declared land that may be dealt with as if it were Crown land" and insert in lieu thereof "is declared to be Crown land".

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

1/2116	14/C/1333	23/C/1333
1/348650	15/C/1333	24/C/1333
1/357310	17/666342	25/C/1333
1/361919	18/C/1333	26/C/1333
1/432411	19/C/1333	1/1131852
1/778753	2/348650	1/1131853
1/783855	2/361919	3/361919
1/970527	2/933750	3/983643
11/983643	2/983643	5/983643
116/669159	20/C/1333	4/983643
12/C/1333	21/C/1333	6/983643
13/C/1333	22/C/1333	1/123439
		3/921060

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the roads hereunder described are closed and the land comprised therein cease to be public roads and the rights of passage and access that previously existed in relation to the roads are extinguished. Upon closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

Description

*Parish – Rooty Hill; County – Cumberland
Land District – Penrith
Local Government Area. – Blacktown*

Road Closed: Lot 1, DP 1169012, at Ropes Crossing,
File No.: 11/03862

Schedule

On closing, title for the land in Lot 1, DP 1169012, remains vested in Blacktown City Council as operational land.

TAMWORTH OFFICE
25-27 Fitzroy Street (PO Box 535), Tamworth NSW 2340
Phone: (02) 6764 5100 Fax: (02) 6766 3805

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance to the provisions of the Roads Act 1993, the road hereunder specified is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

Description

Locality – Rushes Creek; Land District – Tamworth;
L.G.A. – Tamworth Regional

Road Closed: Lot 1 in Deposited Plan 1165105, Parish Baldwin, County Darling.

File No.: 07/1984.

Note: On closing, title to the land comprised in Lot 1 will remain vested in the State of New South Wales as Crown Land.

TAREE OFFICE
98 Victoria Street (PO Box 440), Taree NSW 2430
Phone: (02) 6591 3500 Fax: (02) 6552 2816

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose name is specified in Column 1 of the Schedules hereunder, is appointed for the term of office specified, as a member of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedules.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE 1

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
David James THURGOOD (new member). Geoffery Bruce SNAPE (re-appointment). Kenneth Charles McCARTHY (re-appointment). Barry William LEE (re-appointment). Alan GRIFFIN (re-appointment). Robert Eric FRASER (re-appointment). David Brian THOMAS (re-appointment).	Gladstone Recreation and Racecourse Reserve Trust.	Reserve No.: 610030. Public Purpose: Public recreation and racecourse. Notified: 22 January 1886. File No.: TE80 R 200/2

Term of Office

For a term commencing 11 October 2011 and expiring on 10 October 2016.

SCHEDULE 2

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Pamela Dawn NIPPERESS (re-appointment). Richard John ARNOLD (re-appointment). Grant PARSONS (re-appointment).	Mount George Recreation Reserve Trust.	Reserve No.: 98140. Public Purpose: Public recreation. Notified: 24 April 1986 File No.: TE80 R 55/2.

Term of Office

For a term commencing 11 October 2011 and expiring on 10 October 2016.

SCHEDULE 3

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Donald Richard GIBSON (re-appointed). Alison Frances McINTOSH (re-appointed).	Killabakh Public Hall Trust.	Reserve No.: 98014. Public Purpose: Public hall. Notified: 6 December 1985. File No.: TE85 R 15.

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Michelle Grace SWANNACK (re-appointed). Edward Leslie GIBSON (re-appointed). James Arthur HULL (re-appointed). Ian Martyn THORPE (re-appointed). George HOAD (new appointment).		

Term of Office

For a term commencing 25 October 2011 and expiring on 24 October 2016.

ASSIGNMENT OF NAME TO A RESERVE TRUST

PURSUANT to Clause 4 (3) of Schedule 8 to the Crown Lands Act 1989, the name specified in Column 1 of the Schedule hereunder, is assigned to the reserve trust constituted as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
 Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Settlement Point Public Recreation Reserve (R79171) Trust.	Reserve No.: 79171. Public Purpose: Public recreation. Notified: 7 December 1956. Parish: Macquarie. County: Macquarie. File No.: TE79 R 104.
Nabiac War Memorial Reserve (R90741) Trust.	Reserve No.: 90741. Public Purpose: War Memorial. Notified: 25 March 1977. Parish: Talawahl. County: Gloucester. FileNo.: TE80 R 476.
Wingham Boy Scouts Reserve (R89373) Trust.	Reserve No.: 89373. Public Purpose: Boy Scouts. Notified: 7 February 1975. Parish: Wingham. County: Macquarie. File No.: TE80 R 210.
Laurieton Public Recreation Reserve (R33949) Trust.	Reserve No.: 33949. Public Purpose: Public recreation. Notified: 22 February 1902. Parish: Camden Haven. County: Macquarie. File No.: TE80 R 312.

<i>Column 1</i>	<i>Column 2</i>
Laurieton Public Recreation Reserve (R79367) Trust.	Reserve No.: 79367. Public Purpose: Public recreation. Notified: 1 March 1957. Parish: Camden Haven. County: Macquarie. File No.: 11/11827.
Seymour Street Public Recreation (R80714) Reserve Trust.	Reserve No.: 80714. Public Purpose: Public recreation. Notified: 30 May 1958. Parish: Camden Haven. County: Macquarie. File No.: TE79 R 30.
Laurie Street Laurieton Public Recreation (R80722) Reserve Trust.	Reserve No.: 80722. Public Purpose: Public recreation. Notified: 30 May 1958. Parish: Camden Haven. County: Macquarie. File No.: TE86 R 33.
Reid Street Public Recreation (R86585) Reserve Trust.	Reserve No.: 86585. Public Purpose: Public recreation. Notified: 19 January 1968. Parish: Camden Haven. County: Macquarie. File No.: TE82 R 46.
Peach Grove Public Recreation (R96485) Reserve Trust.	Reserve No.: 96485. Public Purpose: Public recreation. Notified: 3 December 1982. Parish: Camden Haven. County: Macquarie. File No.: TE82 R 44.
Ocean Drive Laurieton Public Recreation (R97643) Reserve Trust.	Reserve No.: 97643. Public Purpose: Public recreation. Notified: 4 January 1985. Parish: Camden Haven. County: Macquarie. File No.: 11/11864.
Laurieton State Emergency Services Reserve (R97002) Trust.	Reserve No.: 97002. Public Purpose: State Emergency Services. Notified: 7 October 1983. Parish: Camden Haven. County: Macquarie. File No.: TE83 R 24.
Long Flat Bush Fire Brigade (R97878) Reserve Trust.	Reserve No.: 97878. Public Purpose: Bush Fire Brigade purposes. Notified: 30 August 1985. Parish: Cowangara. County: Macquarie. File No.: TE96 R 22.

APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose name is specified in Column 1 of the Schedule hereunder, is appointed for the term of office specified, as a member of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Allan James PHELPS (new appointment) Alvena FERGUSON (new appointment) Warren PARKINSON (new appointment) Tin Hta NU (new appointment)	Kendall Community Centre Reserve Trust	Reserve No: 98013 Public Purpose: Community purposes Notified: 6 December 1985

Term of Office

For a term commencing 19 August 2011 and expiring on 23 June 2014.

File No: TE85R23

ERRATUM

IN the notification appearing in the *New South Wales Government Gazette* number 31 of 12 February 2010, Folio 824, under the heading 'Revocation of Reservation of Land' relating to Reserve No. 224 at Bulahdelah, in Schedule 2 replace the area of 1.39 square metres with 139.4 square metres.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

ERRATUM

IN the notification appearing in the *New South Wales Government Gazette* No. 94 of 13 June 1986, Folio 2731, under the heading 'Incorporation of Reserve Trustees' for Reserve No. 63643 in Column 2 should exclude "Oxley Island".

File No.: TE80 R 206.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

WAGGA WAGGA OFFICE**Corner Johnston and Tarcutta Streets (PO Box 60), Wagga Wagga NSW 2650****Phone: (02) 6937 2700 Fax: (02) 6921 1851****RESERVATION OF CROWN LAND**

PURSUANT to section 87 of the Crown Lands Act 1989, the Crown land specified in Column 1 of the schedule hereunder is reserved as specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Land District: Corowa	Reserve No. 1033288
Local Government Area: Corowa Shire Council	Public Purpose: Rural services
Locality: Buraja Lot 2, Sec. 2, DP 758189, Parish: Buraja, County: Hume Area: About 2020m ² File Reference: 08/9256	

APPOINTMENT OF RESERVE TRUST AS TRUSTEE OF A RESERVE

PURSUANT to section 92 (1) of the Crown Lands Act 1989, the reserve trust specified in Column 1 of the Schedule hereunder is appointed as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Wagga Wagga City Council Crown Reserves Reserve Trust	Public Park No. 620101 Public Purpose: Public park Notified: 18 October 1887 File Reference: WA86A16

APPOINTMENT OF RESERVE TRUST AS TRUSTEE OF A RESERVE

PURSUANT to section 92 (1) of the Crown Lands Act 1989, the reserve trust specified in Column 1 of the Schedule hereunder is appointed as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

SCHEDULE

<i>Column 1</i>	<i>Column 2</i>
Corowa Shire Council Crown Reserves Reserve Trust	Reserve No. 1033288 Public Purpose: Rural services Notified: This day File Reference: 08/9256

WESTERN REGION OFFICE
45 Wingewarra Street (PO Box 1840), Dubbo NSW 2830
Phone: (02) 6883 5400 Fax: (02) 6884 2067

ERRATUM

IN the *New South Wales Government Gazette* of 7 October 2011, Folio 5971 under the heading “RESERVATION OF CROWN LAND”, Reserve 1033328, the name of the Parish for all of the scheduled land should have read Nadbuck.

KATRINA HODGKINSON, M.P.,
Minister for Primary Industries

WATER**WATER ACT 1912**

AN application for a licence under section 10 of Part 2 of the Water Act 1912, being within a proclaimed (declared) local area under section 5 (4) of the said Act has been received as follows:

Peter Huxley DAYHEW and Robyn Janet DAWES for a pump on Gum Swamp, on Lots 9 and 10, DP 1118880, Parish Wongajong, County Forbes, water supply for stock purposes. (Reference: 70SL091147). (GA1822189).

Any inquiries should be directed to (02) 6850 2807.

Written objections, from any local occupier or statutory authority, specifying grounds and how their interests are affected, must be lodged with the NSW Office of Water, PO Box 291, Forbes NSW 2871, within 28 days of this publications.

LYN GORHAM,
Licensing Manager

Roads and Traffic Authority

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

ORANGE CITY COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which 4.6 metre high vehicles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 20 June 2011.

GARRY STYLES,
General Manager,
Orange City Council
(by delegation from the Minister for Roads)

SCHEDULE

1. Citation

This Notice may be cited as Orange City Council 4.6 metre high vehicle Route Notice No. 3/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Effect

This Notice remains in force until 30 September 2015 unless it is amended or repealed earlier.

4. Application

This Notice applies to those 4.6 metre high vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

5. Routes

<i>Type</i>	<i>Road No.</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
Local.	983.	Hanrahan Place, Orange.	Northern Distributor Road, Orange.	Northern Distributor Road, Orange.	Both Directions.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

ORANGE CITY COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 30 August 2011.

GARRY STYLES,
General Manager,
Orange City Council
(by delegation from the Minister for Roads)

SCHEDULE
1. Citation

This Notice may be cited as Orange City Council B-Double Route Notice No. 3/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Effect

This Notice remains in force until 30 September 2015 unless it is amended or repealed earlier.

4. Application

This Notice applies to those B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

5. Routes

<i>Type</i>	<i>Road No.</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
Local.	983.	Hanrahan Place, Orange.	Northern Distributor Road, Orange.	Northern Distributor Road, Orange.	Both directions.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under the Road Transport (Mass, Loading and Access) Regulation 2005

I, MICHAEL BUSHBY, Chief Executive of the Roads and Traffic Authority, pursuant to Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005, hereby amend the Class 2 Road Train Notice 2010, as published in the *New South Wales Government Gazette* No. 117 on 24 September 2010, at pages 4671 to 4718, as set out in the Schedule of this Notice.

MICHAEL BUSHBY,
Chief Executive,
Roads and Traffic Authority

SCHEDULE
1. Citation

This Notice may be cited as the Roads and Traffic Authority Class 2 Road Train (Amendment) Notice No. 2/2011.

2. Commencement

This Notice takes effect on and from 5:00 a.m., on 23rd October 2011.

3. Effect

This Notice remains in force up to and including 10:00 a.m., on 23rd October 2011 unless it is repealed earlier.

4. Amendment

Insert the following routes into the table at Appendix 1, under the heading Part 1 – Approved 36.5 metre Road Train routes NSW Sydney Region.

<i>Type</i>	<i>Road No.</i>	<i>Road Names</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
RT.	–	Huntingwood Drive.	Huntingwood Drive, Huntingwood.	Olympic Boulevard, Sydney Olympic Park.	1. Applies only to those Road Train and B-Triple combinations participating in the charity event Convoy for Kids 2011. 2. Vehicles must assemble as Road Train and B-Triple Combinations at Huntingwood Drive Huntingwood. 3. Road Train and B-Triple combinations participating in the convoy must be unladen. 3. Road Train and B-Triple combinations participating in the convoy must not begin travel on the approved route prior to 8:00am 4. Road Train and B-Triple Combinations participating in the convoy must have Police escort. 5. 1 x Pilot vehicle must travel at the front of the Road Train and B-Triple convoy. 6. 1 x Pilot vehicle must travel at the rear of the Road Train and B-Triple convoy.
	–	Jack Brabham Drive.			
	HW5.	Great Western Highway.			
	–	Wallgrove Road.			
	M4.	Western Motorway.			
	MR200.	Homebush Bay Drive.			
	–	Australia Avenue.			
	–	Olympic Boulevard.			

<i>Type</i>	<i>Road No.</i>	<i>Road Names</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
					<p>7. Road Train and B- Triple Combinations must disassemble to prescriptive combinations at Sydney Olympic Park at the conclusion of the Convoy for Kids charity event and/ or prior to leaving Sydney Olympic Park.</p> <p>8. Maximum speed of Road Train and B-Triple combinations travelling under this Notice is restricted to 70kph.</p>

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under the Road Transport (Mass, Loading and Access) Regulation 2005

CARRATHOOL SHIRE COUNCIL, in pursuance of the Road Transport (Mass, Loading, Access) Regulation 2005, makes the amendment in the Schedule to the routes and areas previously specified on or in which Road Trains may be used.

Dated: 12 October 2011.

KEN CROSKELL,
General Manager,
Carrathool Shire Council
(by delegation from the Minister for Roads)

SCHEDULE**1. Citation**

This Notice may be cited as the Carrathool Shire Council Road Train Repeal Notice No. 1/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Amendment

The General Notice for the Operation of Road Trains 2010 is amended by omitting the following from that Notice:

<i>Type</i>	<i>Road</i>	<i>Starting Point</i>	<i>Finishing Point</i>
RT.	Cahill Road, Goolgowi.	HW6 Mid Western Highway.	Back Hillston Road.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

CARRATHOOL SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which 25 metre B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 12 October 2011.

KEN CROSKELL,
General Manager,
Carrathool Shire Council
(by delegation from the Minister for Roads)

SCHEDULE**1. Citation**

This Notice may be cited Carrathool Shire Council 25 Metre B-Double Route Notice No. 1/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Effect

This Notice remains in force until 1st September 2015 unless it is amended or repealed earlier.

4. Application

This Notice applies to those 25 metre B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2010 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

5. Routes

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>
25m.	Bradys Road, Goolgowi.	HW6 Mid Western Highway.	Wollarma Road.
25m.	Wollarma Road, Goolgowi.	Bradys Road.	Cahills Road.
25m.	Cahills Road, Goolgowi.	Wollarma Road.	Back Hillston Road.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under the Road Transport (Mass, Loading and Access) Regulation 2005

CARRATHOOL SHIRE COUNCIL, in pursuance of the Road Transport (Mass, Loading, Access) Regulation 2005, makes the amendment in the Schedule to the routes and areas previously specified on or in which B-Doubles may be used.

Dated: 12 October 2011.

KEN CROSKELL,
General Manager,
Carrathool Shire Council
(by delegation from the Minister for Roads)

SCHEDULE**1. Citation**

This Notice may be cited as the Carrathool Shire Council B-Doubles Repeal Notice No. 1/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Amendment

The General B Double Permit Notice 2010 is amended by omitting the following from that Notice:

<i>Type</i>	<i>Road</i>	<i>Starting Point</i>	<i>Finishing Point</i>
25m.	Cahill Road, Goolgowi.	HW6 Mid Western Highway.	Back Hillston Road.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

CARRATHOOL SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which Road Train Vehicles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 12 October 2011.

KEN CROSKELL,
General Manager,
Carrathool Shire Council
(by delegation from the Minister for Roads)

SCHEDULE**1. Citation**

This Notice may be cited as Carrathool Shire Council Notice No. 3/2011.

2. Commencement

This Notice takes effect on the date of publication in the New South Wales Government Gazette.

3. Effect

This Notice remains in force until 30th September 2015 unless it is amended or repealed earlier.

4. Application

This Notice applies to those Road Train vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2010 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

5. Routes

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>
RT.	Bradys Road, Goolgowi.	HW6 Mid Western Highway.	Wollarma Road.
RT.	Wollarma Road, Goolgowi.	Bradys Road.	Cahills Road.
RT.	Cahills Road, Goolgowi.	Wollarma Road.	Back Hillston Road.

ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

YOUNG SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which 25 metre B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 12 October 2011.

PETER VLATKO,
General Manager,
Young Shire Council
(by delegation from the Minister for Roads)

SCHEDULE**1. Citation**

This Notice may be cited Young Shire Council 25 Metre B-Double Route Notice No. 2/2011.

2. Commencement

This Notice takes effect on the date of gazettal.

3. Effect

This Notice remains in force until 1st September 2015 unless it is amended or repealed earlier.

4. Application

This Notice applies to those 25 metre B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2010 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

5. Routes

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
25m.	Ashville School Road, Thudungra.	Bribbaree Road.	Billicott Road.	
25m.	Berthong Road, Tubbul.	MR241 Milvale Road.	Young/Cootamundra Shire Boundary.	
25m.	Hunters Lane, Bribbaree.	Bribbaree Road.	Young/Weddin Shire Boundary.	
25m.	Milvale Stockingbingal Road, Milvale.	MR241 Milvale Road.	Young/Cootamundra Shire Boundary.	
25m.	Moonbucca Road, Bribbaree.	Tubbul Wirrup Road.	Young/Bland Shire Boundary.	No travel permitted 6:45 – 8:15am and 3:15 – 5:15pm on school days.
25m.	Schillers Road, Milvale.	700m north of MR241 Milvale Road.	Tubbul Road.	
25m.	Tubbul Road, Tubbul.	Shoards Crossing Road.	Birches Lane.	No travel permitted 6:45 – 8:15am and 3:15 – 5:15pm on school days.
25m.	Yeo Yeo Hampstead Road, Milvale.	MR241 Milvale Road.	Young/Cootamundra Shire Boundary.	No travel permitted 6:45 – 8:15am and 3:15 – 5:15pm on school days.

Other Notices

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of Incorporation Pursuant to Section 72

TAKE notice that the incorporation of the following associations is cancelled by this notice pursuant to section 72 of the Associations Incorporation Act 2009.

Cancellation is effective as at the date of gazettal.

Swimming Mid North Coast Incorporated – Y2563026

The Friends of Newcastle Regional Museum Inc – Y1964303

Lithgow Family & Community Mental Health Support Group Incorporated – Inc9876215

Camden Residents' Action Group Incorporated – Y1936113

Lake Macquarie Coastal and Wetlands Alliance Incorporated – Inc9876311

Seagulls Social Darts Club Incorporated – Inc9892113

The Members First Team Incorporated – Inc9885827

GU Burwood Staff Social Club Incorporated – Inc9892795

Access to Education Incorporated – Inc9892107

Albury SS & A Women's Bowling Club Incorporated – Inc9883164

Dated this 10th day of October 2011.

ROBYNE LUNNEY,
A/Manager,
Case Management,
Registry of Co-operatives & Associations,
NSW Fair Trading,
Department of Finance & Services

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of Incorporation Pursuant to Section 76

TAKE notice that the incorporation of the following associations is cancelled by this notice pursuant to section 76 of the Associations Incorporation Act 2009.

Cancellation is effective as at the date of gazettal.

Armidale Softball Association Incorporated – Y1976832

Dubbo Volleyball Inc – Y1367716

Dungog Rugby Union Club Incorporated – Y2281921

Lake Forbes Aquatic Club Incorporated – Inc9875911

Lingsu Exoterics & Esoterics of New South Wales Inc – Y1584805

Moree Youth School Incorporated – Y3046240

National Aussie Legend Motorsport Authority Incorporated – Inc9876085

New Frontier Logistics Incorporated – Inc9876485

The New South Wales Society of Competition Square Dancing Incorporated – Y2371528

Newtown Senior Cricket Club Incorporated – Inc9875301

New Zealander and Islander Care Incorporated – Inc9875820

One Voice – One People Incorporated – Y3047041
Parry Shire Ratepayers Association Incorporated – Y1349718

Peninsula Marching Association Inc. – Y1915810

Petersham Soccer Football Club Incorporated – Inc9874183

Playspace Works Incorporated – Inc3491530

Point Zero (Mid North Coast) Incorporated – Inc9875890

Pomona Progress Association Incorporated – Y2313938

Dated this 11th day of October 2011.

ROBYNE LUNNEY,
Delegate of the Commissioner,
NSW Fair Trading,
Department of Finance & Services

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of Incorporation Pursuant to Section 76

TAKE notice that the incorporation of the following associations are cancelled by this notice pursuant to section 76 of the Associations Incorporation Act, 2009.

Cancellation is effective as at the date of gazettal.

Central Coast Access Centre Incorporated – Y2435135

Cromer Youth Club Inc – Y1187620

Point Zero (Mid North Coast) Incorporated – Inc9875890

Society for Medical and Biological Engineering (NSW) Inc – Y1574809

Sydney Dragon Blades Inc – Inc9874921

Sydney's Unique Venues Association Incorporated – Y2442532

Taree Astronomical Society Inc – Y1005124

Tell The World Evangelism International Incorporated – Y2875148

T.H.E. Theatre Company, Ryde Incorporated – Y1996138

Tilligerry Touch Association Incorporated – Inc3420612

Trundle District Movie Club Incorporated – Inc9880942

West Wauchope Rugby League Football Club Inc – Y1263243

West Wyalong Town Advancement Group Incorporated – Y2752023

Wollondilly Singles Social Club Incorporated – Y1372727

World Haedong Ghumdo Association Incorporated – Inc3463997

Wyoming Marching Association Inc – Y1525042

Yambacoona Healing Incorporated – Inc3478877

Yamba Little Athletics Club Incorporated – Inc9874500

Youth & Family Enrichment Association Incorporated – Inc9876012

Zetland Community Action Group (Z.C.A.G.)
Incorporated – Y1896927

Zonta Club of Newcastle City Incorporated –
Inc9876555

Dated this 13th day of October 2011.

ROBYNE LUNNEY,
Delegate of the Commissioner
NSW Fair Trading
Department of Finance & Services

ASSOCIATIONS INCORPORATION ACT 2009

Reinstatement of Cancelled Association Pursuant to
Section 84

TAKE notice that the incorporation of HASTINGS DISTRICT
HIGHLAND PIPE BAND INC (Y1149042), cancelled on
19 February 2009, is reinstated pursuant to section 84 of the
Associations Incorporation Act 2009.

Dated this 6th day of October 2011.

ROBYNE LUNNEY,
A/Manager, Case Management,
Registry of Co-operatives & Associations,
NSW Fair Trading,
Department of Finance & Services

ASSOCIATIONS INCORPORATION ACT 2009

Reinstatement of Cancelled Association Pursuant to
Section 84

TAKE notice that the incorporation of KENGUGRO
AUSTRALIAN-HUNGARIAN FOLKLORE ENSEMBLE
INC (Y1108600), cancelled on 29 August 2008, is reinstated
pursuant to section 84 of the Associations Incorporation Act
2009.

Dated this 11th day of October 2011.

ROBYNE LUNNEY,
A/Manager,
Case Management,
Registry of Co-operatives & Associations,
NSW Fair Trading,
Department of Finance & Services

ASSOCIATIONS INCORPORATION ACT 2009

Reinstatement of Cancelled Association Pursuant to
Section 84

TAKE notice that the incorporation of NAMOI AERO CLUB
INCORPORATED (Inc9884011), cancelled on 12 August
2011, is reinstated pursuant to section 84 of the Associations
Incorporation Act 2009.

Dated this 11th day of October 2011.

ROBYNE LUNNEY,
A/Manager,
Case Management,
Registry of Co-operatives & Associations,
NSW Fair Trading,
Department of Finance & Services

GEOGRAPHICAL NAMES ACT 1966

PURSUANT to the provisions of section 10 of the
Geographical Names Act 1966, the Geographical Names
Board has this day assigned the name listed hereunder as a
geographical name:

Assigned Name:	Lowrys Hill
Designation:	Hill
L.G.A.:	Oberon Council
Parish:	Beemarang
County:	Georgiana
L.P.I. Map:	Burruga
1:100,000 Map:	Oberon 8830
Reference:	GNB5531

The position and the extent for this feature is recorded
and shown within the Geographical Names Register of New
South Wales. This information can be accessed through the
Board's website at www.gnb.nsw.gov.au

KEVIN RICHARDS,
Acting Secretary

Geographical Names Board
PO Box 143
Bathurst NSW 2795

GEOGRAPHICAL NAMES ACT 1966

THE Geographical Names Board of New South Wales
hereby notifies that as of this date, the designation for the
following list of names has been changed from 'Reserve' to
'Rifle Range'.

Anzac Rifle Range, Albury Rifle Range, Coonamble Rifle
Range, Moree Rifle Range, Portland Rifle Range, Rocky Dam
Rifle Range, Walgett Rifle Range, Cootamundra Rifle Range.

This information can be accessed through the Boards Web
Site at www.gnb.nsw.gov.au.

KEVIN RICHARDS,
Secretary

Geographical Names Board
PO Box 143, Bathurst 2795

LAND TAX MANAGEMENT ACT 1956

Land Tax Threshold

This determination of the Land Tax threshold is made
under section 62TBA of the Land Tax Management Act 1956,
as amended by the State Revenue and Other Legislation
Amendment (Budget Measures) Act 2006.

Indexation Factor

It is hereby notified that pursuant to section 62TBB(3)
of the Land Tax Management Act 1956, 1.766% has been
determined as the percentage by which average land values of
land within residential, commercial and industrial zones have
changed between 1 July 2010 and 1 July 2011. The indexation
factor is determined at 1.766% for the 2012 land tax year.

Indexed Amount

It is hereby notified that pursuant to section 62TBA (7)
(a) of the Land Tax Management Act 1956 that \$408,000 is
the determined indexed amount for the 2012 land tax year.

Average of Indexed Amounts

It is hereby notified that pursuant to section 62TBA (7) (b) of the Land Tax Management Act 1956 that the average of the indexed amounts pursuant to section 62TBA (7) (b) is \$396,000; and the indexed amounts used to calculate that average amount are:

For the 2010 land tax year \$380,000
 For the 2011 land tax year \$401,000
 For the 2012 land tax year \$408,000

Determination of the Tax Threshold

Under section 62TBA (2) of the Land Tax Management Act 1956, the tax threshold for the 2012 land tax year is the average of the indexed amounts \$396,000 or the \$387,000 tax threshold for the 2011 land tax year, whichever is the greater.

It is hereby notified that pursuant to section 62TBA (7) (c) of the Land Tax Management Act 1956, that the amount of \$396,000 has been determined as the tax threshold for the 2012 land tax year.

Determination of the Premium Rate Threshold

Under section 62TBC (2) of the Land Tax Management Act 1956, the premium rate threshold for the 2011 land tax year is \$2,366,000.

The land tax threshold for the 2011 land tax year is \$387,000.

The land tax threshold for the 2012 land tax year under Section 62TBA (7) (c) as determined above is \$396,000.

It is hereby notified that pursuant to Section 62TBC (4) of the Land Tax Management Act 1956, that the amount of \$2,421,000 has been determined as the premium rate threshold for the 2012 land tax year.

PHILIP WESTERN,
 Valuer General

LOCAL COURT PRACTICE NOTE No. 1 OF 2006

Issued: 31 August 2006

Re-issued: 29 August 2008

Re-issued 5 August 2010

Re-issued Pursuant to Section 27 Local Court Act 2007

Procedures to be Adopted for Domestic Violence Court Intervention Model at Campbelltown and Wagga Wagga Local Courts

THIS Practice Note applies to all charges of Domestic Violence matters (as defined in s 11 Crimes (Domestic and Personal Violence) Act 2007) listed for mention or hearing at Campbelltown and Wagga Wagga Local Courts.

The object of this Practice Note is to ensure that, where appropriate, pleas of guilty are entered at the first available opportunity and if a plea of not guilty is entered that a hearing occurs with expedition.

To achieve these objects, the following practice directions shall apply:

1. Where a person is charged with a domestic violence offence, the prosecution shall serve on the defendant at the first available opportunity, and not later than the first mention date in court a copy of the main parts of the brief of evidence upon which the prosecution relies. The main part of the brief is to include:

1. The alleged facts;
2. Copy of the victim's statement; and
3. Any photographs on which the prosecution will rely.
2. The court may require the defendant to enter a plea at the first time the matter is mentioned in court. If no plea can be entered at that time, the court will allow an adjournment of not more than 7 days for a plea to be entered.
3. Upon a plea of not guilty being entered, that matter shall be adjourned to a hearing date, with a direction that the balance of the brief be served not less than 14 days before the date fixed for hearing, in accordance with s 183 of the Criminal Procedure Act 1986.
4. Where the defendant is legally represented, within 7 days of the service of the balance of the brief, the prosecutor should be advised of which witness are required for cross examination and which if any witnesses statements can be tendered without the need to call them for cross-examination.

This Practice Note does not operate to make any written statement admissible if it is not otherwise admissible.

This Practice Note commences for Wagga Wagga and Campbelltown on 11 September 2006.

Judge GRAEME HENSON,
 Chief Magistrate

LOCAL COURT PRACTICE NOTE No. 2 OF 2010

Issued: 4 January 2010

Procedure for Appeals of SDRO Annulment Decisions

THE procedures outlined in this Practice Note set out the manner in which an appeal against a refusal by the State Debt Recovery Office (SDRO) to grant an annulment of a penalty notice enforcement order pursuant to section 50 of the Fines Act 1996 (an appeal) and, if the appeal is granted, subsequent proceedings for the offence are to proceed.

1. Lodging an appeal
 - 1.1 An appeal may be lodged at ANY Local Court Registry.
2. Appearances by the SDRO
 - 2.1 The SDRO may make written submissions on the appeal instead being legally represented.
 - 2.2 The SDRO's submissions must include a copy of the penalty notice enforcement order, and:
 - (i) The name and address for service of the prosecuting authority, and
 - (ii) The driver licence number, if known, of the person allegedly responsible for the offence,
3. Annulment granted – Plea of Guilty
 - 3.1 If the Court grants the annulment, and the defendant pleads guilty to the offence, the Court will, where appropriate, proceed to determine the offence.
4. Annulment granted – Plea of Not Guilty
 - 4.1 If the Court grants an annulment, and the defendant pleads not guilty to the offence, the Court will adjourn the matter to for hearing at a Court proximate to where the offence took place.

4.2 Where possible, the matter will be listed for hearing no less than two months after the annulment is granted.

4.3 The prosecuting authority may make an application to vacate the hearing if any witnesses will be unavailable on the adjourned date in accordance with Practice Note 1 of 2001.

5. Costs

5.1 The Court will not consider an order in relation to costs in the appeal proceedings unless the other party has been notified that such an application is to be made.

This Practice Note commences on 4 January 2010.

GRAEME HENSON,
Chief Magistrate

LOCAL GOVERNMENT ACT 1993

PROCLAMATION

MARIE BASHIR, Governor

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council and in pursuance of section 218B of the Local Government Act 1993, hereby alter the boundaries of the Area of Canterbury City as described by Proclamation in *New South Wales Government Gazette* No. 150 of 26 October 1984, and the Area of Hurstville City as described by Proclamation in *New South Wales Government Gazette* No. 184 of 19 December 1930, by transferring lands from the Area of Hurstville City described in Schedule A hereto and adding it to the Area of Canterbury City and by transferring lands from the Area of Canterbury City described in Schedule B hereto and adding it to the Area of Hurstville City so that the boundary of the Area of Hurstville City and the boundary of the Area of Canterbury City shall be as described in Schedules C and D hereto.

Signed and sealed at Sydney, this 5th day of October 2011.

By Her Excellency's Command,

DON PAGE, M.P.,
Minister for Local Government

GOD SAVE THE QUEEN!

SCHEDULE A

Areas to be Transferred from Hurstville City
to Canterbury City

Area about 2.725 hectares: Being all those parts of Hurstville City Council's area north of the southern kerblin of the M5 East freeway, east of the centre line of King Georges Road and west of the centre line of Kingsgrove Road.

SCHEDULE B

Areas to be transferred from Canterbury City
to Hurstville City

Area about 11.464 hectares: Being all those parts of Canterbury City Council's area south of the southern kerblin of the M5 East freeway, east of the centre line of King Georges Road and west of the centre line of Kingsgrove Road.

SCHEDULE C

Hurstville (as altered)

County of Cumberland, Parish of St. George: Area about 2 463 hectares: Commencing in the middle of the George's River at its intersection with the Illawarra Railway; and bounded thence by that railway northerly and easterly generally to the south-easterly prolongation of the north-eastern boundary of lot 1, Deposited Plan 5970; by a line along that boundary of that lot, lots 4 to 10 inclusive, shown on that Deposited Plan, lots 23 to 34 inclusive, Deposited Plan 5619, lots 50, 49, 48, 47, 46, 45, 42, 41, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4 and 3, Section D, Hurstville Hill Estate Subdivision, shown on plan 1197 (L) at the Registrar-General's office, Sydney, and Croydon Road north-westerly to Stoney Creek Road; by that road easterly and again by Croydon Road northerly to the southern kerblin of the M5 Motorway; by that kerbside generally westerly to King Georges Road by that road south-easterly to Broadarrow Road; by that road south-westerly to Bonds Road; by that road northerly to Josephine Street; by that street and a line along the northern boundaries of lots 1, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72 and 71 Deposited Plan 16666, lots 98 and 113, Deposited Plan 16722 and lots 20 and 21, Deposited Plan 2309, westerly to Salt Pan Creek; and by that creek and the George's River aforesaid downwards to the point of commencement.

SCHEDULE D

Canterbury (as altered)

Area about 3 330 hectares: Commencing at the intersection of Cooks River and the prolongation southerly of Garnet Street; and bounded thence by that prolongation and that street northerly to New Canterbury Road; by that road westerly to Canterbury Road; by that road south-westerly to Princess Street; by that street westerly to Holden Street; by that street northerly to the south-eastern corner of lot 6, Deposited Plan 7733; by the southern boundary of that lot, the south-eastern boundaries of lots 3, 2 and 1 and the south-western boundary of the said lot 1 westerly, south-westerly and north-westerly; by a line along part of the southern boundary of lot 7, section 2, Deposited Plan 1013, the southern boundaries of lots 8 to 14 inclusive, lots 6 to 1 inclusive, Deposited Plan 7011 and lots 22 to 31 inclusive, section 22, Deposited Plan 1013 westerly to the easternmost corner of lot 2, Deposited Plan 205503; by a line along the south-eastern boundaries of lots 2 and 1 of that plan, lot 23, Deposited Plan 8848, lot 7, Deposited Plan 8873, the southern boundaries of lot 14, Deposited Plan 10457 and the land in Deposited Plan 847 south-westerly and westerly to the easternmost corner of lot 59 Deposited Plan 9804; by the south-eastern boundary of that lot and a line along the southern boundaries of lots 59, 83 and 104 south-westerly and westerly to Hay Street; by a line across that street north-westerly to the north-eastern corner of lot 124; by the northern boundary of that lot and the western boundaries of lots 123 to 117 inclusive westerly and northerly to Georges River; by that road and Burwood Road south-westerly and southerly to the middle of Cooks River Main Stormwater Channel; by the middle of that channel generally westerly to Punchbowl Road; by that road the reconstructed Punchbowl Road, again Punchbowl Road and Canterbury Road generally south-westerly to the middle of Salt Pan Creek Stormwater

Channel; by the middle of that channel south-easterly to Salt Pan Creek; by that creek downwards to a line along the southern boundaries of lot 372, Deposited Plan 524483, lots 373 and 383, Deposited Plan 225388, lot 444 Deposited Plan 235121 and lots 426 to 443 inclusive and lots 386 and 387, Deposited Plan 233362; by that line and Josephine Street easterly to Bonds Roads; by that road southerly to Broadarrow Road; by that road easterly to King Georges Road; by that road northerly to the western prolongation of the southern kerbline of the M5 Motorway, by that line and the southern kerbside aforesaid, generally easterly to Kingsgrove Road, by that road southerly to Wollie Creek; by that creek downwards to Cooks River; by the right bank of that river upwards to Unwins Bridge; by a line north-easterly to the middle of Cooks River; and by that river upwards to the point of commencement.

NATIONAL PARKS AND WILDLIFE ACT 1974

Notice of Reservation of a Nature Reserve

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, reserve the lands described in the Schedule below as part of Mother of Ducks Lagoon Nature Reserve, under the provisions of section 30A (1) of the National Parks and Wildlife Act 1974.

Signed and sealed at Sydney this 5th day of October 2011.

MARIE BASHIR,
Governor,

By Her Excellency's Command,

ROBYN PARKER,
Minister for the Environment

GOD SAVE THE QUEEN

SCHEDULE

Land District – Armidale; LGA – Guyra

County Hardinge, Parish Elderbury, 8.7 hectares, being Lot 2, DP 1158272.

Papers: OEH/FIL08/16873.

POISONS AND THERAPEUTIC GOODS ACT 1966

Order Under Clause 175 (1)

Poisons and Therapeutic Goods Regulation 2008

Restoration of Drug Authority

IN accordance with the provisions of clause 175 (1) of the Poisons and Therapeutic Goods Regulation 2008, a direction has been issued that the Order issued on 4 March 1997 prohibiting Dr Peter GILBERTSON of Suite 25, Level 1, 74 Rawson Street, Epping NSW 2121 (MED0001141582) from supplying or having possession of drugs of addiction as authorised by clause 101 of the Regulation and issuing a prescription for a drug of addiction as authorised by clause 77 of the Regulation, for the purpose of his profession as a medical practitioner, shall cease to operate from 11 October 2011.

Dated at Sydney, 7 October 2011.

Dr MARY FOLEY,
Director-General,
Department of Health, New South Wales

PORTS AND MARITIME ADMINISTRATION ACT 1995

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

Notice of Compulsory Acquisition of Land Walsh Point, Newcastle

THE Minister for Roads and Ports declares, with the approval of Her Excellency the Governor and Executive Council, that the land described in Schedule 1 of this notice is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991.

Dated at Sydney, this 28th day of September 2011.

The Hon. DUNCAN GAY, M.L.C.,
Minister for Roads and Ports

SCHEDULE 1

All that piece or parcel of land at Kooragang Island in the local government area of Newcastle, Parish of Newcastle, County of Northumberland, being Lot 1, DP 575674, the whole of the land contained in Certificate of Title Volume 12844, Folio 99.

PROFESSIONAL STANDARDS ACT 1994

Notification Pursuant to Section 32

NOTICE is given that Attorney General has extended the period for which The Law Society of New South Wales (NSW) Scheme is in force to 21 November 2012, under section 32(2) of the Professional Standards Act 1994.

Dated 11 October 2011.

GREG SMITH,
Attorney General

SUBORDINATE LEGISLATION ACT 1989

Notice under Section 5 (2) (A)

Industrial Relations (Public Sector Conditions of Employment) Regulation 2011

NOTICE is hereby given in accordance with section 5 (2) (a) of the Subordinate Legislation Act 1989 inviting public comment on the Industrial Relations (Public Sector Conditions of Employment) Regulation 2011 (the Regulation). The Regulation which was made following the assent of the Industrial Relations Amendment (Public Sector Conditions of Employment) Act 2011 on 17 June 2011 and was published on the NSW legislation website on 20 June 2011.

The principal object of the Regulation is to declare the Government's public sector policies for the purposes of section 146C of the Industrial Relations Act 1996. That section requires the Industrial Relations Commission to give effect to such policies when making or varying awards or orders relating to the remuneration or other conditions of employment of State public sector employees.

A copy of the Regulatory Impact Statement and the Regulation can be inspected or downloaded from the NSW Industrial Relations website: <http://www.industrialrelations.nsw.gov.au> or by contacting (02) 9020 4628.

Written comments and submissions concerning the proposed Regulation are invited and may be forwarded to:

Ms VICKI TELFER, Executive Director
NSW Industrial Relations
KcKell Building
2-24 Rawson Place
Sydney NSW 2000

Submissions may also be faxed to NSW Industrial Relations on 02 9020 4700 or emailed to NSWIR_Submission@services.nsw.gov.au. Correspondence should be marked 'Submission on Industrial Relations (Public Sector Conditions of Employment) Regulation 2011 (Attention Ms Vicki Telfer, Executive Director)'.

The closing time for written submissions concerning this matter is 5.00 pm on Friday, 18 November 2011.

MICHAEL COUTTS-TROTTER,
Director-General
Department of Finance and Services

**TECHNICAL AND FURTHER EDUCATION
COMMISSION ACT 1990**

**LAND ACQUISITION (JUST TERMS
COMPENSATION) ACT 1991**

Notice of Compulsory Acquisition of Land for
Technical and Further Education

THE Minister for Education, with the approval of Her Excellency the Governor, declares by delegate that the land described in the Schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Technical and Further Education Commission Act 1990.

Dated at Sydney, this 10th day of October 2011.

HUGO HARMSTORF,
Delegate of the Minister for Education

SCHEDULE

All that piece or parcel of land situated at Ballina in the Local Government Area of Ballina, Parish of Ballina, County of Rous and State of New South Wales, being Lot 2 in Deposited Plan 1153430.

TRANSPORT ADMINISTRATION ACT 1988

**LAND ACQUISITION (JUST TERMS
COMPENSATION) ACT 1991**

Notice of Compulsory Acquisition of Land for the
Purposes of the Transport Construction Authority

THE Transport Construction Authority, with the approval of Her Excellency the Governor with the advice of the Executive Council, declares that the Land described in Schedule 1, Schedule 2, Schedule 3 and Schedule 4 hereto are acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Transport Construction Authority, as authorised by the Transport Administration Act 1988.

Dated this 5th day of October 2011.

CHRIS LOCK,
Chief Executive

SCHEDULE 1

All that piece or parcel of land situated at Quakers Hill, in the Local Government Area of Blacktown, Parish of Gidley, County of Cumberland and State of New South Wales, being described as Lot 2 in Deposited Plan 635224 and said to be in the possession of Blacktown City Council.

SCHEDULE 2

All that piece or parcel of land situated at Quakers Hill, in the Local Government Area of Blacktown, Parish of Gidley, County of Cumberland and State of New South Wales, being described as Lot 3 in Deposited Plan 635224 and said to be in the possession of Blacktown City Council.

SCHEDULE 3

All that piece or parcel of land situated at Quakers Hill, in the Local Government Area of Blacktown, Parish of Gidley, County of Cumberland and State of New South Wales, being described as Lot 2 in Deposited Plan 608906 and said to be in the possession of Blacktown City Council.

SCHEDULE 4

All that piece or parcel of land situated at Quakers Hill, in the Local Government Area of Blacktown, Parish of Gidley, County of Cumberland and State of New South Wales, being described as Lot 22 in Deposited Plan 635223 and said to be in the possession of Blacktown City Council.

CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

Marie Bashir, A.C., C.V.O., Governor

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 236L (1) and (2) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, declare the area comprised within the description hereunder (together with all buildings or premises which are now or may hereafter be erected thereon) to be a residential facility within the meaning of the Crimes (Administration of Sentences) Act 1999 and I further declare that the residential facility shall be known as Miruma Community Offender Support Program Centre, viz.:

All that piece or parcel of land situate in the local government area of Cessnock, Parish of Pokolbin and County of Northumberland, being part of Lot 3, Deposited Plan 76262, shown by the shading as Miruma Community Offender Support Program Centre on Plan Catalogue Number 56735 in the Plan Room of the NSW Department of Finance and Services reproduced hereunder and having a total area of 4,027 square metres or thereabouts.

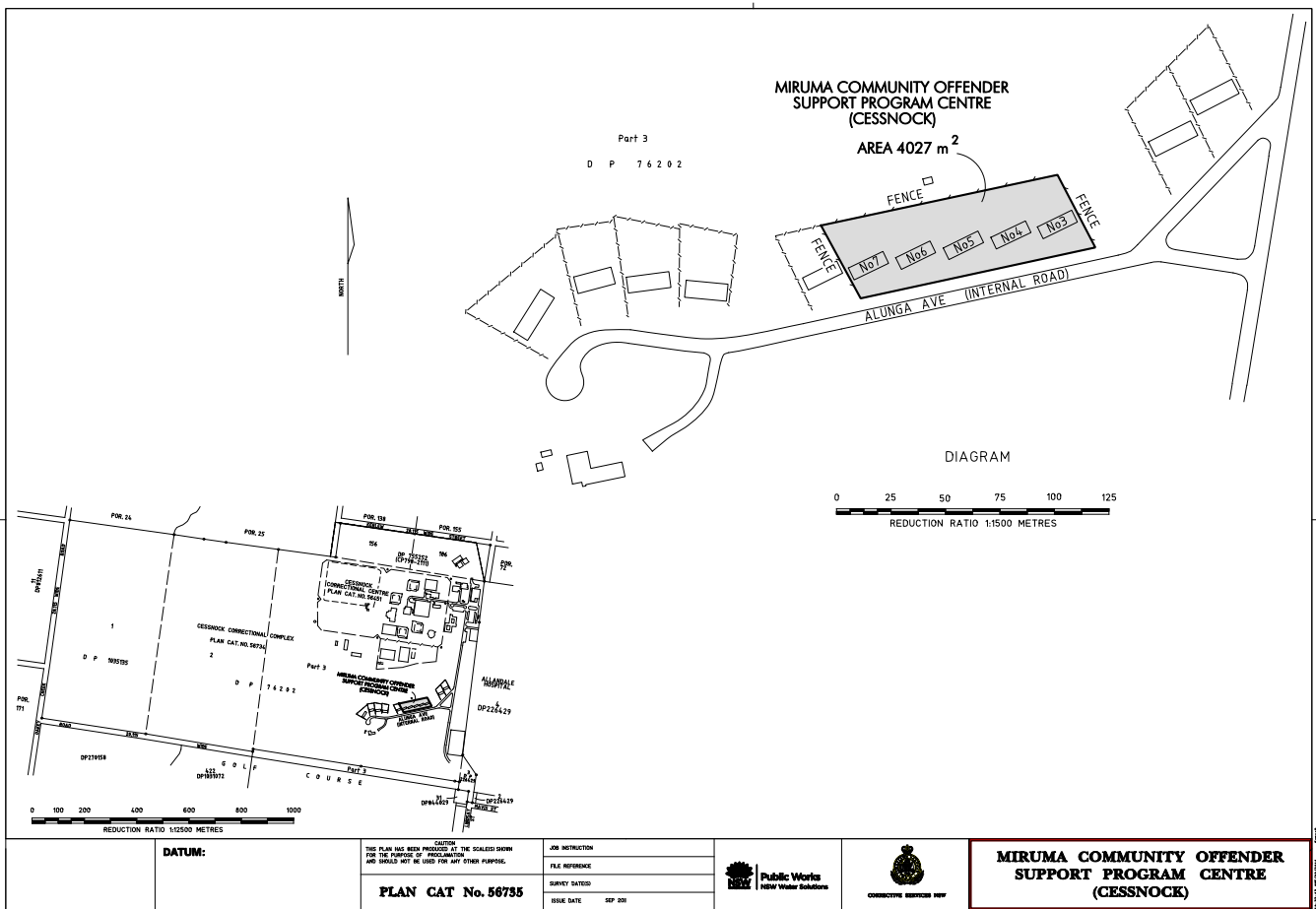
This proclamation is to take effect on and from the date of publication in the *NSW Government Gazette*.

Signed and sealed at Sydney, this 28th day of September 2011.

By Her Excellency's Command,

GREG SMITH,
Minister for Justice

GOD SAVE THE QUEEN!



DATUM:

CAUTION
THIS PLAN HAS BEEN PRODUCED BY THE SCALED DRAWING
FOR THE PURPOSES OF PROCLAMATION
AND SHOULD NOT BE USED FOR ANY OTHER PURPOSES.
PLAN CAT No. 56735

JOB INSTRUCTION
FILE REFERENCE
SURVEY DATES
ISSUE DATE SEP 2011



**MIRUMA COMMUNITY OFFENDER
SUPPORT PROGRAM CENTRE
(CESSNOCK)**

© OWNED IN RIGHT OF NSW THROUGH THE DEPT. OF FINANCE AND SERVICES

CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

Marie Bashir, A.C., C.V.O., Governor

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 224 (3) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, vary the Proclamation of Cessnock Correctional Complex published in the NSW Government Gazette of 1 March 2002 and varied by Proclamations published in the NSW Government Gazette on 19 September 2008 and 23 April 2010; and in variation thereof I declare Cessnock Correctional Complex to be the area comprised within the boundaries hereunder (together with all buildings or premises which are now or may hereafter be erected thereon), viz.:

All that piece or parcel of land situate in the local government area of Cessnock, Parish of Pokolbin and County of Northumberland, being Lot 1, Deposited Plan 1035135; Lot 2 and Part Lot 3, Deposited Plan 76202; Lot 3, Deposited Plan 226429 and Lots 156 and 186, Deposited Plan 755252, shown by shading on Plan Catalogue Number 56734 in the Plan Room of the Department of Finance and Services reproduced hereunder and having an area of 131.9 hectares or thereabouts.

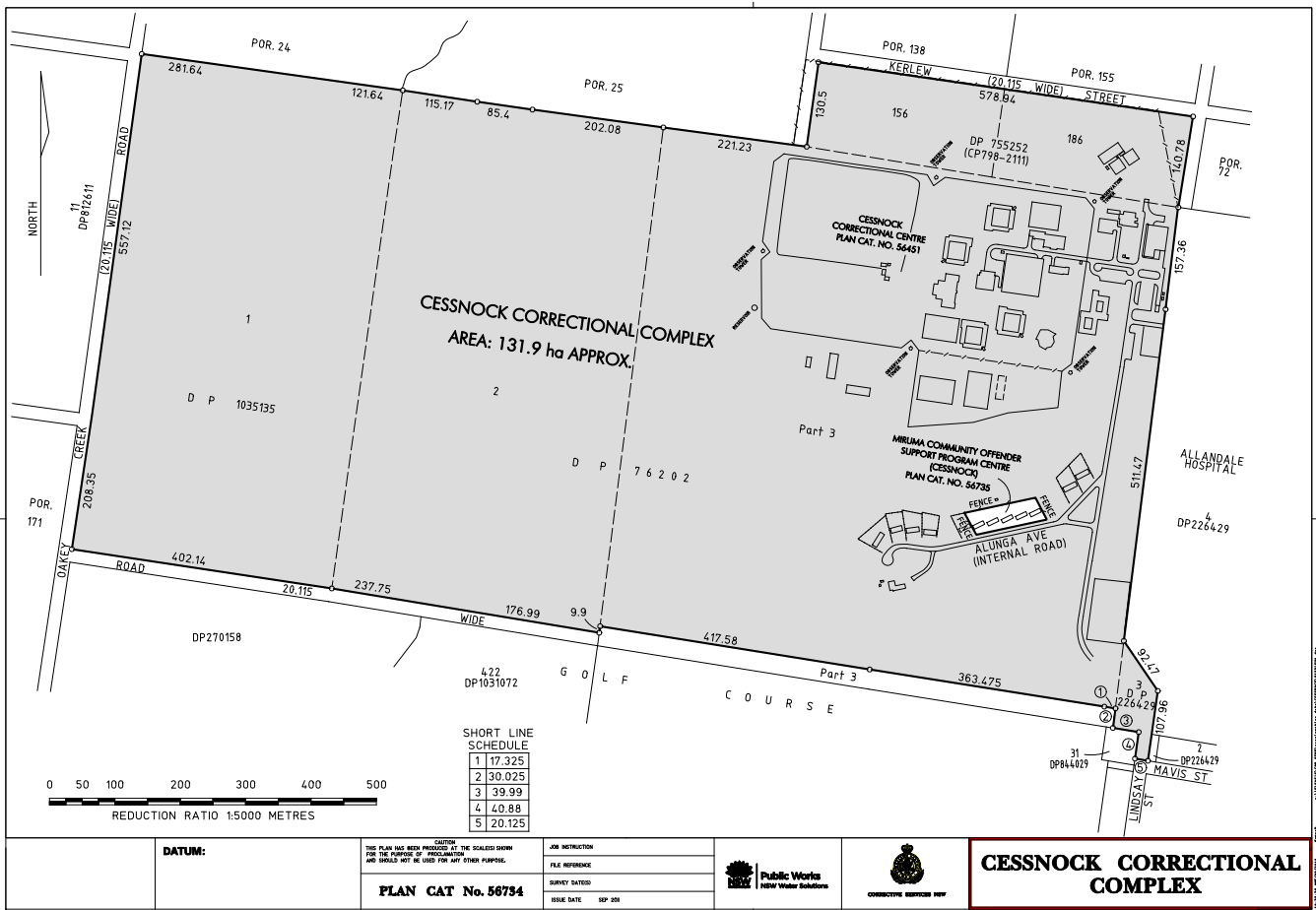
This proclamation is to take effect on and from the date of publication in the NSW Government Gazette.

Signed and sealed at Sydney, this 28th day of September 2011.

By Her Excellency's Command,

GREG SMITH, Minister for Justice

GOD SAVE THE QUEEN!



CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

Marie Bashir, A.C., C.V.O., Governor

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 225 (4) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, vary the Proclamation of the Mid North Coast Correctional Centre published in the *NSW Government Gazette* of 2 July 2004 and varied on 11 September 2009; and in variation thereof I declare the Mid North Coast Correctional Centre to be the area comprised within the boundaries hereunder (together with all buildings or premises which are now or may hereafter be erected thereon), viz.:

All that piece or parcel of land situate in the local government area of Kempsey, Parish of Yarravel and County of Dudley, being part of Lot 1, Deposited Plan 1162326, shown by the shading as Mid North Coast Correctional Centre on Plan Catalogue Number 56722 in the Plan Room of the NSW Department of Finance and Services reproduced hereunder and having a total area of 11.05 hectares or thereabouts.

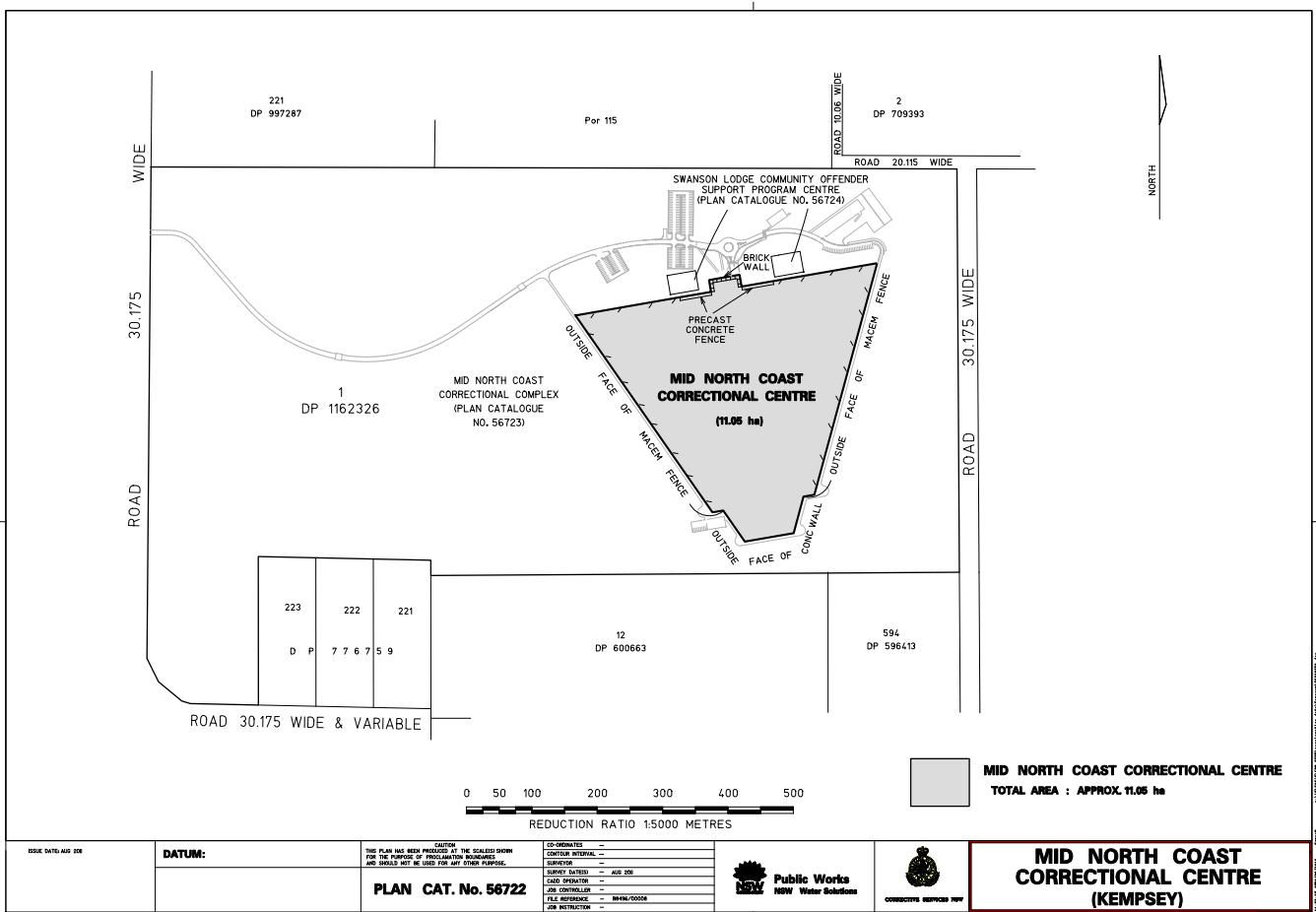
This proclamation is to take effect on and from the date of publication in the *NSW Government Gazette*.

Signed and sealed at Sydney, this 28th day of September 2011.

By Her Excellency's Command,

GREG SMITH,
Minister for Justice

GOD SAVE THE QUEEN!



CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

Marie Bashir, A.C., C.V.O., Governor

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 224 (3) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, vary the Proclamation of the Mid North Coast Correctional Complex published in the *NSW Government Gazette* of 2 July 2004; and in variation thereof I declare the Mid North Coast Correctional Complex to be the area comprised within the boundaries hereunder (together with all buildings or premises which are now or may hereafter be erected thereon), viz.:

All that piece or parcel of land situate in the local government area of Kempsey, Parish of Yarravel and County of Dudley, being Lot 224 in Deposited Plan 776759 and Portion 73, Portion 74 and Portion 75 in Parish of Yarravel and County of Dudley, shown by the shading as Mid North Coast Correctional Complex on Plan Catalogue Number 56368 in the Plan Room of the NSW Department of Commerce reproduced hereunder, and having a total area of 79.21 hectares or thereabouts.

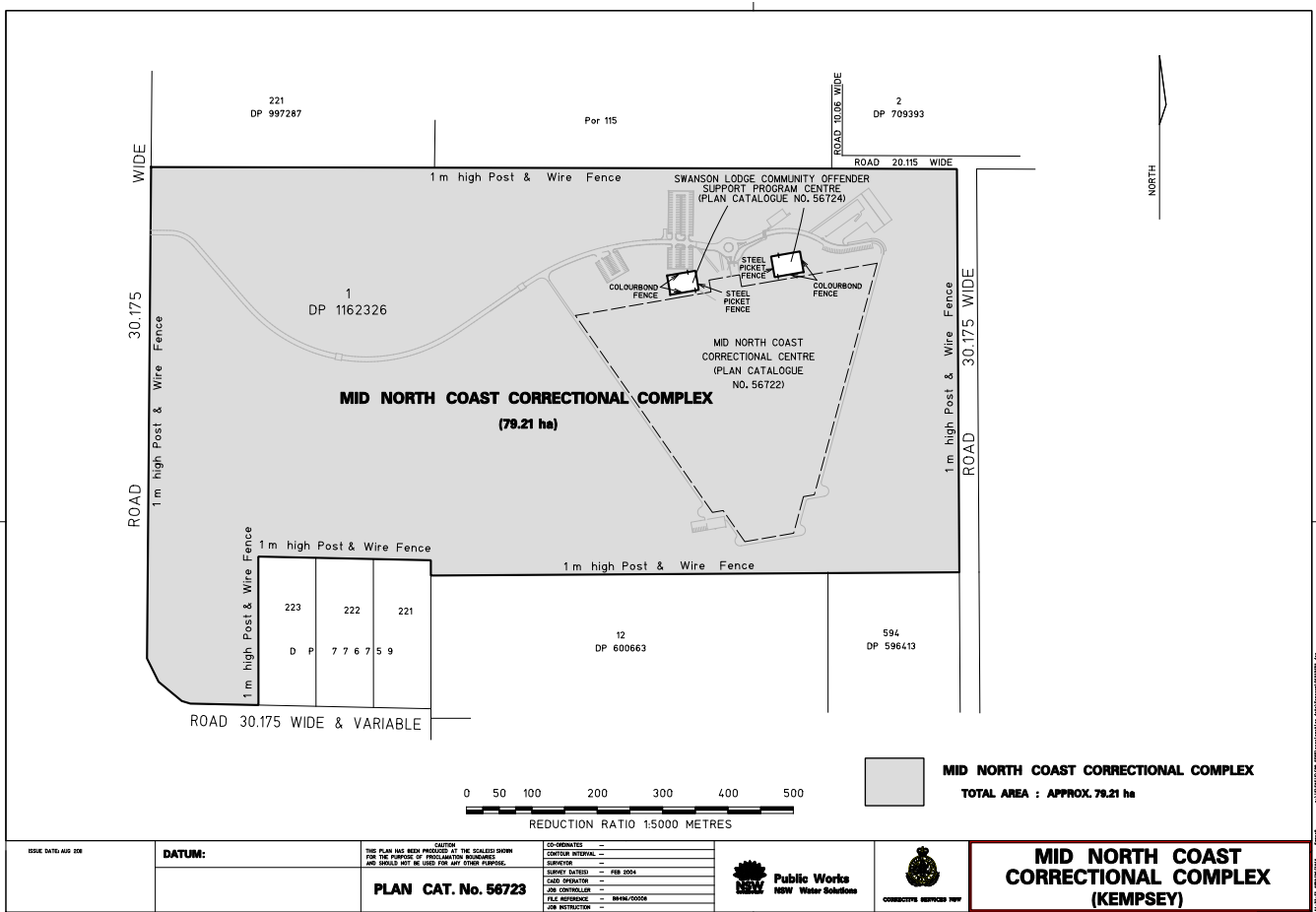
This proclamation is to take effect on and from the date of publication in the *NSW Government Gazette*.

Signed and sealed at Sydney, this 2nd day of September 2009.

By Her Excellency's Command,

JOHN ROBERTSON, M.L.C.,
Minister for Corrective Services

GOD SAVE THE QUEEN!



CRIMES (ADMINISTRATION OF SENTENCES) ACT 1999

Marie Bashir, A.C., C.V.O., Governor

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, and pursuant to section 236L (3) of the Crimes (Administration of Sentences) Act 1999, do, by this Proclamation, vary the Proclamation of Swanson Lodge Community Offender Support Program Centre published in the *NSW Government Gazette* on 11 September 2009; and in variation thereof I declare Swanson Lodge Community Offender Support Program Centre to be the area comprised within the boundaries described hereunder (together with all buildings or premises which are now or may hereafter be erected thereon), viz:

All that piece or parcel of land situate in the local government area of Kempsey, Parish of Yarravel and County of Dudley, being part of Lot 1, Deposited Plan 1162326, shown by the shading as Swanson Lodge Community Offender Support Program Centre on Plan Catalogue Number 56724 in the Plan Room of the NSW Department of Finance and Services reproduced hereunder, and having a total area of 0.275 hectares or thereabouts.

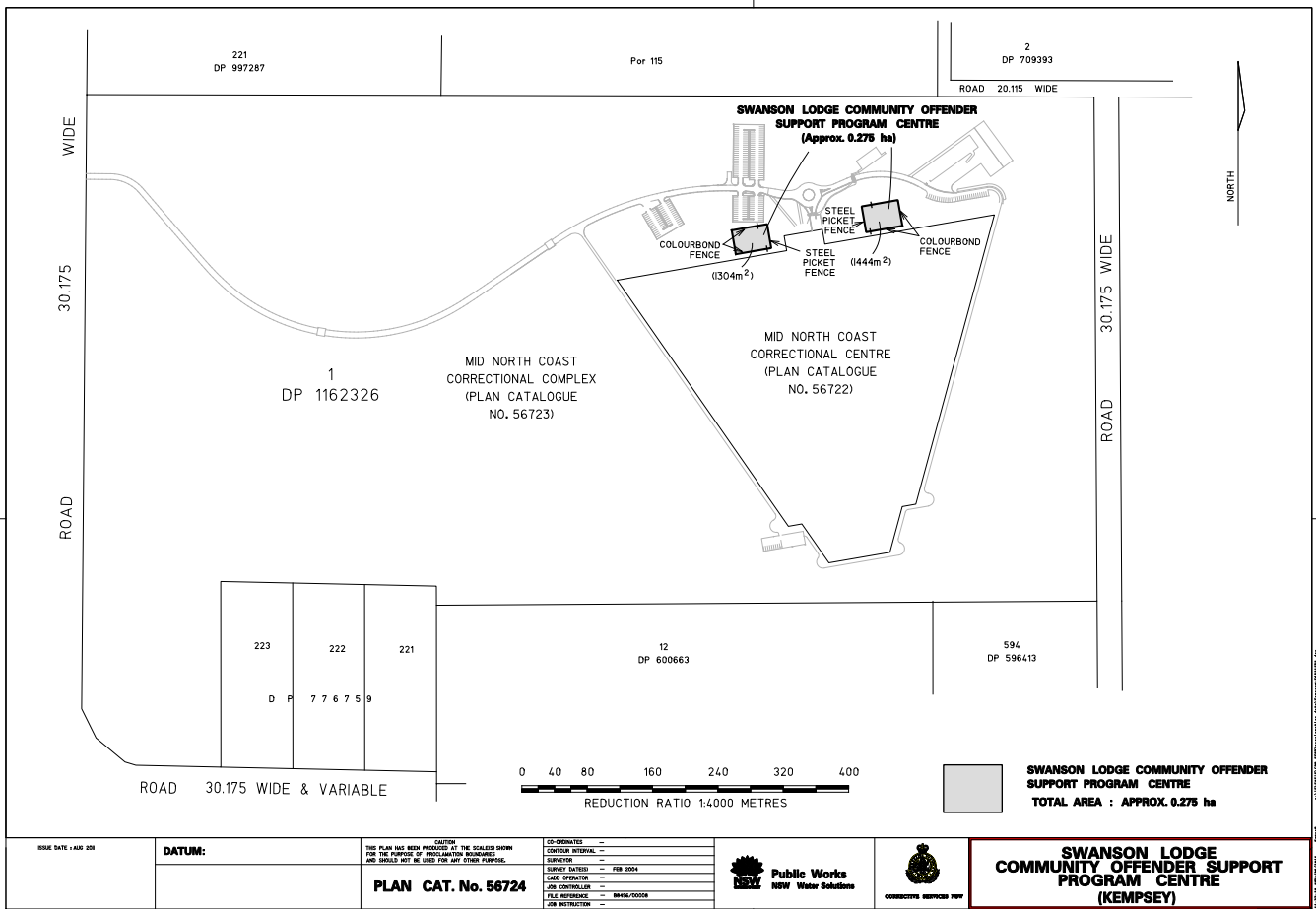
This proclamation is to take effect on and from the date of publication in the *NSW Government Gazette*.

Signed and sealed at Sydney, this 28th day of September 2011.

By Her Excellency's Command,

GREG SMITH,
Minister for Justice

GOD SAVE THE QUEEN!



PRIVATE ADVERTISEMENTS

COUNCIL NOTICES

BLACKTOWN CITY COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

BLACKTOWN CITY COUNCIL declares with the approval of Her Excellency the Governor that the lands described in Schedule 1 below, excluding the interest described in Schedule 2 below and excluding any mines or deposits of minerals in the land, are acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for public recreation and resale. Dated at Blacktown this 19th day of September 2011. RON MOORE, General Manager, Blacktown City Council, PO Box 63, Blacktown NSW 2148.

SCHEDULE 1

Lots 5 to 10 and 34 to 36, Section 22, DP 1480.

SCHEDULE 2

Vide F608192 Easement for Railway Purposes 100 Feet Wide. [6132]

BLACKTOWN CITY COUNCIL

Erratum

THE following notice replaces one advertised on page 5503, Folio 6072 of the *New South Wales Government Gazette* No. 88, dated 9 September 2011. The gazettal date remains 9 September 2011.

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

BLACKTOWN CITY COUNCIL declares with the approval of Her Excellency the Governor that the lands described in Schedule 1 below, excluding the interest described in Schedule 2 below and excluding any mines or deposits of minerals in the lands, are acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for infrastructure drainage. Dated at Blacktown, this 25th day of August 2011. RON MOORE, General Manager, Blacktown City Council, PO Box 63, Blacktown NSW 2148.

SCHEDULE 1

Lot 1, section 26, DP 1480.
 Lot 2, section 26, DP 1480.
 Lot 3, section 26, DP 1480.
 Lot 4, section 26, DP 1480.
 Lot 5, section 26, DP 1480.
 Lot 24, section 13, DP 1480.

SCHEDULE 2

Vide J924490 easement for transmission line affecting the land shown so burdened in DP 443343. [6133]

BLACKTOWN CITY COUNCIL

Roads Act 1993, Section 10

Dedication of Land as a Public Road

NOTICE is hereby given that in accordance with section 10 of the Roads Act 1993, the lands described in the Schedule below are dedicated to the public as road. R. MOORE, General Manager, Blacktown City Council, PO Box 63, Blacktown NSW 2148.

SCHEDULE

Lots 601, 608, 609, 618, 620, 625-628, DP 748770.

Lot 2, DP 1014926.

Lot 1, DP 1045276. [6134]

BLUE MOUNTAINS CITY COUNCIL

Roads Act 1993, Section 162

Naming of Public Road

IN accordance with provisions of the Roads Act 1993, notice is given that Council has named the new road created in the subdivision of Lot 2, DP 233744, 176-198 Valley Road, Hazelbrook NSW 2779, as Antrim Place.

The new road is located off Valley Road, Hazelbrook.

This notice was approved on 22 September 2011 under the authority of PAUL KOEN, Executive Principal, Development, Health & Customer Services, Blue Mountains City Council, Locked Bag 1005, Katoomba NSW 2780. [6135]

GUNNEDAH SHIRE COUNCIL

Roads Regulation 2008, Part 2, Division 2

New Road Name

NOTICE is hereby given that Gunnedah Shire Council, in accordance with the Roads Regulation 2008, Part 2, Division 2, has named the road created in the subdivision of Lot 1, DP 604626, "Pindari", 8267 Oxley Highway, Gunnedah, as "Bellevue Close".

The subject road extends west from Blackjack Road, Gunnedah and is approximately 350 metres long.

No objections to the proposed name were received during the required 28 day exhibition period. R. CAMPBELL, General Manager, Gunnedah Shire Council, PO Box 63, Gunnedah NSW 2340 [6136]

LAKE MACQUARIE CITY COUNCIL

Naming of Private Road

NOTICE is hereby given that Council has approved the naming of the private road shown below:

<i>Location</i>	<i>Name</i>
Subdivision of Lot 28, DP 270043,	Little Corella Cove.
Currawong Circuit, Cams Wharf.	

Origin of Name: Fauna – following theme of surrounding names.

BRIAN BELL, General Manager, Lake Macquarie City Council, Box 1906, Hunter Region Mail Centre NSW 2310. [6137]

MIDCOAST COUNTY COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

MIDCOAST COUNTY COUNCIL declares with the approval of the Administrator that the easement described in the Schedule below, excluding any mines or deposits of minerals in the land, is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for a sewer pipeline. Dated at Taree, this 22nd day of June 2011. E. N. HANINGTON, General Manager, MidCoast County Council, PO Box 671, Taree NSW 2430.

SCHEDULE

Easement for sewer pipeline 5 wide shown as "C" within Lot 11, DP 776372 as shown on DP 1132834. [6138]

TAMWORTH REGIONAL COUNCIL

Roads Act 1993, Section 10

Dedication of Land as Public Road

PURSUANT to the provisions of section 10, Roads Act 1993, the land specified in Schedule 1 below is dedicated as a Council Public Road to the Roads Authority specified in Schedule 2 hereunder, as from the date of publication of this notice. PAUL BENNETT, General Manager, Tamworth Regional Council, 437 Peel Street (PO Box 555), Tamworth, NSW 2340

SCHEDULE 1

*Parish – Wombramurra; County – Parry
Land District – Nundle*

L.G.A. – Tamworth Regional Council

Lots 4, 5, 6 and 7 inclusive in Deposited Plan 1120827.

SCHEDULE 2

Roads Authority: Tamworth Regional Council. [6139]

YASS VALLEY COUNCIL

Erratum

Correction Notice under Section 162 of the
Roads Act 1993

A notice published in the *New South Wales Government Gazette* of 19 August 2005, Number 105, Folio 4892, regarding the naming of East and West Tallagandra Lane is now amended to read:

East Tallagandra Lane – From Sutton Road to
Mulligans Flat Road.

Tallagandra Lane – From Mulligans Flat Road to
Murrumbateman Road.

DAVID ROWE, General Manager, Yass Valley Council,
PO Box 6, Yass NSW 2582. [6140]

ESTATE NOTICES

NOTICE of intended distribution of estate. – Any person having any claim upon the estate of WILLIAM ARCHIBALD BRUCE, late of Dulwich Hill, in the State of New South Wales, retired labourer, who died on 18 June 2011, must send particulars of the claim to the executor, David Leslie Scutts, care of Truman Hoyle Lawyers, Level 11, 68 Pitt Street, Sydney NSW 2000, within 31 days from the publication of this notice. After that time and after six months from the date of the death of the deceased the assets of the estate and the property may be conveyed and distributed having regard only to the claims of which at the time of conveyance or distribution the executor has notice. Probate was granted in New South Wales on 4 October 2011. TRUMAN HOYLE LAWYERS, Level 11, 68 Pitt Street, Sydney NSW 2000 (DX263, Sydney), tel.: (02) 9226 9888. Reference: SR 92905.

[6141]

NOTICE of intended distribution of estate. – Any person having any claim upon the estate of MILAN OSTADAL, late of Elizabeth Bay, in the State of New South Wales, investor, who died on 22 June 2011, must send particulars of the claim to the executor, Erin Gabrielle Kildaire, care of Stephen R. W. Reed, Solicitor, Level 11, 68 Pitt Street, Sydney NSW 2000, within 31 days from the publication of this notice. After that time and after six months from the date of the death of the deceased the assets of the estate and the property may be conveyed and distributed having regard only to the claims of which at the time of conveyance or distribution the executor has notice. Probate was granted in New South Wales on 6 October 2011. STEPHEN R. W. REED, Solicitor, Level 11, 68 Pitt Street, Sydney NSW 2000 (DX 263, Sydney), tel.: (02) 9221 6700. Reference: SR.

[6142]

COMPANY NOTICES

NOTICE of change in partnership. – Notice is given that the partnership previously subsisting between Corlac Pty Ltd as Trustee for P.W. O'Hearn Family Trust, Cameron Stuart Bilinsky in his own right and as Trustee for the C.S. Bilinsky Family Trust, Giorgio Fortunato Maggioletto as Trustee for the George F Maggioletto Trust and Benjamin Philip O'Hearn as Trustee for The Benjamin P O'Hearn Family Trust carrying on business as Lawyers at Level 2, 84 Nelson Street, Wallsend, under the name of O'Hearn & Bilinsky Lawyers has been dissolved as from 16 September 2011, so far as concerns the partner Cameron Stuart Bilinsky in his own right and as Trustee for the C.S. Bilinsky Family Trust, who resigned from the said Partnership. [6143]

NOTICE of meeting of members. – In the matter of MERRELL CLEANING SERVICES PTY LTD (in liquidation), ACN 003 823 774. – Notice is hereby given that pursuant to section 509 of the Corporations Act 2001, the final meeting of members of the above named company will be held at the offices of KRG Pty Ltd, Accountants, 14 Macquarie Street, Belmont, on 21 November 2011 at 10:00 a.m., for the purpose of laying before the meeting the liquidators' final account and report and giving any explanation thereof. Dated: 10 October 2011. LEE THOMAS RENFREW and KERRIE ANN BERMAN, Joint and Several Liquidators, Accountants, 14 Macquarie Street, Belmont NSW 2280. [6144]

Authorised to be printed