

# Threatened Species Conservation Act 1995 No 101

## Notice of Final Determination and Amendment of Schedule 1 to Act

The Scientific Committee established under the *Threatened Species Conservation Act 1995* has, in pursuance of Division 3 of Part 2 of that Act, made a final determination to insert the following ecological community in Part 3 of Schedule 1 to that Act (Endangered ecological communities) and, accordingly, that Schedule is amended as set out in Annexure "A" to this Notice:

Castlereagh Swamp Woodland Community (as described in the final determination of the Scientific Committee to list the ecological community)

The final determination, set out in Annexure "B" to this Notice, to insert this ecological community in Part 3 of Schedule 1 has been made because the Scientific Committee is of the opinion that the 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.

Copies of the final determination may be inspected at:

The Information Centre (Level 1) National Parks & Wildlife Service 43 Bridge Street Hurstville NSW 2220

and at all District Offices of the National Parks and Wildlife Service during business hours.

Signed at Sydney, this 3rd day of December 1999.

Assoc. Prof. Paul Adam

Deputy Chairperson Scientific Committee

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# Annexure "A"

**Schedule 1** to the *Threatened Species Conservation Act 1995* is amended by inserting in Part 3 in alphabetical order the matter:

Castlereagh Swamp Woodland Community (as described in the final determination of the Scientific Committee to list the ecological community)

# Annexure "B"

Final Determination of the Scientific Committee to list the Castlereagh Swamp Woodland Community as an endangered ecological community.

Annexure "B"

## **NSW SCIENTIFIC COMMITTEE**

# **Final Determination**

The Scientific Committee, established by, the Threatened Species Conservation Act, has made a Final Determination to list the Castlereagh Swamp Woodland Community as an ENDANGERED ECOLOGICAL COMMUNITY on Part 3 of Schedule 1 of the Act. Listing is provided for by Part 2 of the Act.

The Scientific Committee has found that:

1. The Castlereagh Swamp Woodland (CSWL) is the name given to the plant community that is characterised by the following assemblage of species:

Angophora bakeri	Banksia oblongifolia
Baumea articulata	Boronia polygalifolia
Callistemon linearis	Cyperus flaccidus
Dianella revoluta	Elatine gratioloides
Eleocharis sphacelata	Eragrostis elongata
Eucalyptus parramattensis subsp. parramattensis	Eucalyptus sclerophylla
Eucalyptus sideroxylon	Goodenia paniculata
Gratiola pedunculata	Hakea sericea
Kunzea capitata	Lepidosperma spp
Leptospermum polygalifolium	Lepyrodia anarthria
Lepyrodla muelleri	Lythrum hyssopifolia

Melaleuca nodosaMelaleuca erubescensPhilydrum lanuginosumMelaleuca thymifoliaThemeda australisPultenaea villosa

- 2. The total species list of the community is 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. The structure of the community is generally woodland or may occur as remnant trees. Characteristic tree species in the CSWL are *Eucalyptus parramattensis* subsp. *parramattensis* and *Melaleuca decora*. Small billabongs and/or wetlands may occur within the community.
- 4. Species composition at any site depends on local topography and drainage conditions; understorey may be seasonally waterlogged.
- 5. CSWL has been recorded from the local government areas of Bankstown, Hawkesbury, Liverpool and Penrith.
- 6. CSWL typically is associated with poorly-drained depressions and creek lines on clay soils associated with Tertiary alluvium.
- 7. CSWL includes the vegetation described as map unit 14c of Benson (1992) and as Castlereagh Woodlands and Wetlands in the Urban Bushland Biodiversity Survey, NPWS (1997).
- 8. CSWL provides habitat for a number of plant species recognised as being of regional conservation significance in the Urban Bushland Biodiversity Survey, NPWS (1997). These include:

Cyperus haspan Eriocaulon scariosum

Glossostigma cleistanthum Goodenia dimorpha var. angustifolia

Isachne globosa Lepidosperma longitudinale

Myriophyllum simulans Sacciolepis indica

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- CSWL has an understorey that may be either grassy or herbaceous with many annual and ephemeral species which respond to wet conditions. The shrub layer can be mid-dense to sparse depending on frequency and period since the last fire.
- 10. Adjacent communities are generally on better-drained soils derived from Tertiary alluvium and may include Castlereagh Ironbark Forest, Castlereagh Scribbly Gum Woodland and Shale-Gravel Transition Forest, Urban Bushland Biodiversity Survey, NPWS (1997). Castlereagh Swamp Woodland may intergrade with adjacent Castlereagh Woodland communities, and these intergrade areas should be considered part of the Castlereagh Swamp Woodland community.
- 11. Occurrences of CSWL are all less than 100 hectares in size and are restricted to low-lying terrain. They are subject to weed invasion related to nutrient enrichment from surrounding urban and rural areas as well as from direct destruction for hobby farm, rural and residential development, and clay and shale extraction. Additional threatening processes include sedimentation, rubbish dumping, recreational vehicles and trail bikes.
- 12. Small areas of CSWL are included in Castlereagh Nature Reserve.
- 13. 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 the Castlereagh Swamp Woodland Community is likely to become extinct in nature in New South Wales unless factors threatening its survival or evolutionary development cease to operate and that listing as an endangered ecological community is warranted.

Dr Chris Dickman Chairperson Scientific Committee

#### References

NPWS (1997) *Urban Bushland Biodiversity Survey* (NSW National Park and Wildlife Service: Hurstville).

Benson, D. (1992) The natural vegetation of the Penrith 1: 100 000 map sheet. *Cunninghamia* 2(4):541–596.

BY AUTHORITY