

STAR SWAMP RESERVE AND ADJACENT BUSHLAND, NORTH BEACH/WATERMAN

Boundary Definition: protected area boundary

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 204 **Area (ha):** bushland 94.4 (Site also includes open water.)

Map no. 33, 39

Map sheet series ref. no. 2034–II NW

Other Names: not known

Local Authorities (Suburb): City of Stirling (Waterman, North Beach)

System 6 (1983): M35 area of bushland goes beyond System area boundaries, all bushland described

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

Tamala Limestone (Qtl: LS1)

Wetlands (within the Spearwood Dunes)

Holocene Swamp Deposits (Qhw: Cps)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Cottesloe Complex — Central and South

Quindalup Dunes

Quindalup Complex

Floristic Community Types

Supergroup 2: Seasonal Wetlands

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

24 Northern Spearwood shrublands and woodlands

28 Spearwood *Banksia attenuata* or *B. attenuata* — *Eucalyptus* woodlands

WETLANDS

Wetland Types: sumpland

Natural Wetland Groups

Spearwood Dunes

Balcatta (S.2)

Wetland Management Objectives: Conservation (3.1ha)

Swan Coastal Plain Lakes EPP: 3.1ha

THREATENED ECOLOGICAL COMMUNITIES

Not assessed

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: limestone ridge, open water, vegetated wetland, vegetated uplands

Vegetation and Flora: limited survey (part Site — DEP 1996 (Star 01–03), EPA and WAWA 1990); detailed survey (Bell *et al.* 1979, Loneragan *et al.* 1984, Loneragan 1987, Pigott 1994, part Site — Watson and Bell 1981)

Structural Units: mapping (Bell *et al.* 1979, Loneragan 1987, EPA and WAWA 1990, DEP 1996 (Star 01–03))

Uplands — Sands derived from Tamala Limestone: *Eucalyptus gomphocephala* Tall Open Forest to Open Woodland; *Eucalyptus marginata* and *E. gomphocephala* Open Forest to Woodland (in NW corner); *Banksia attenuata*, *B. menziesii*, *Allocasuarina fraseriana* Low Open Forest to Low Open Woodland

Uplands — Tamala Limestone: *Melaleuca huegelii* and *Dryandra sessilis* var. *cygnorum* Open Heath to Low Open Heath

Wetlands: *Melaleuca raphiophylla* Low Closed Forest

Scattered Native Plants: (canopy only) not assessed (probably <10%)

Vegetation Condition: >50% Very Good to Good, <50% Good to Degraded, with areas of severe localised disturbance

Total Flora: 247 native taxa, 105 weed taxa (Loneragan 1987, plus P. Pigott and D. Pike pers. comm. and part Site records DEP 1996 D (Star 01–03)) (estimated >90% expected flora)

Significant Flora: *Jacksonia sericea* (3), *Conostephium minus* (4); *Glischrocaryon aureum*, *Pimelea calcicola*, *Ricinocarpos glaucus*, *Lechenaultia linarioides*, *Astroloma microcalyx*, *Trachymene coerulea*, *Trichocline spathulata*; typical Tamala Limestone taxa — *Grevillea preissii*, *Trymalium ledifolium* var. *ledifolium*, *Melaleuca huegelii*, *Petrophile serruriae* subsp. nov. (GJK 11421), *Pimelea calcicola* (pink)

Fauna: multiple surveys for birds (66 species), reptiles (11 species) and amphibians (4 species) (Loneragan 1987; RAOU 1996 D, 21 visits). Good assemblage of small insectivores including Splendid Fairy-wren, White-winged Fairy-wren, Weebill, Broad-tailed, Western and Yellow-rumped Thornbills. Significant bird species: category 1 (1), category 3 (9) and category 4 (4). Significant reptile species: Bardick (*Echiopsis curtus*), Carpet Python (*Morelia spilota*). High number of Jewel Beetles (Buprestidae) (Loneragan 1987)

Linkage: adjacent bushland to the south (across road); part of Greenways 3, 9, 33 (Tingay, Alan & Associates 1998a); part of fragmented and potential bushland/wetland linkages (Part A, Map 7)

Other Special Attributes: The National Trust of Australia (WA) Classification; noted as 'a valuable ecological remnant of...the Spearwood Dune Systems...also an important link in a series of wetland Nature Reserves' (Loneragan 1987)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Entered in the Register of the National Estate (Star Swamp Reserve); subject to protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Scientific or evolutionary importance, General criteria for the protection of wetland, streamline and estuarine fringing and coastal vegetation, Criteria not relevant to determination of regional significance, but which may be applied when evaluating areas having similar values

Recommendation: Site with Some Existing Protection; the existing care, control and management intent of the reserve is endorsed. The purpose of the reserve should be amended to include conservation and appropriate mechanisms applied in consultation with the management body (see Table 3, Volume 1).