

## MELALEUCA PARK AND ADJACENT BUSHLAND, BULLSBROOK/LEXIA

**Boundary Definition:** bushland (part taken to cadastre)/conservation wetland boundary (mostly associated with protected area) (Areas of bushland within the boundaries of the Site are not accurately mapped.)

### **SECTION 1: LOCATION INFORMATION**

**Bush Forever Site no.** 399 **Area (ha):** bushland 4150.9 (Site also includes open water.)

**Map no.** 22, 23, 29, 30, 31, 36

**Map sheet series ref. no.** 2034–I SE, 2034–I SW, 2034–II NE

**Other Names:** M9, part Submission Areas 117 and 288, part of proposed Gnangara Park

**Local Authorities (Suburb):** Shire of Swan (Bullsbrook, Ellenbrook, Lexia)

**Includes CALM Managed Land:** State Forest 65

**System 6 (1983):** M9 area of bushland goes beyond System area boundaries, all bushland described

### **SECTION 2: REGIONAL INFORMATION**

#### **LANDFORMS AND SOILS**

##### **Bassendean Dunes**

Bassendean Sands (Qpb: S8)

##### **Bassendean Dunes/Pinjarra Plain**

Bassendean Sands over Guildford Formation (Qpb/Qpa: S10)

##### **Wetlands (within the Bassendean Dunes)**

Holocene Swamp Deposits (Qhw: Cps)

#### **VEGETATION AND FLORA**

##### **Vegetation Complexes**

###### **Pinjarra Plain**

Yanga Complex

###### **Bassendean Dunes**

Bassendean Complex — North

Bassendean Complex — North Transition (restricted complex, contains significant area)

##### **Floristic Community Types**

###### **Supergroup 2: Seasonal Wetlands**

4 *Melaleuca preissiana* damplands

S2 Northern *Pericalymma ellipticum* dense low shrublands

###### **Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau**

21c Low-lying *Banksia attenuata* woodlands or shrublands

22 *Banksia ilicifolia* woodlands

23a Central *Banksia attenuata* — *B. menziesii* woodlands

23b Northern *Banksia attenuata* — *B. menziesii* woodlands

#### **REGIONAL WETLANDS**

**Wetland Types:** sumpland, dampland, floodplain, creek, artificial channel

##### **Natural Wetland Groups**

###### **Bassendean—Pinjarra transition OR Bassendean with fluvial features**

Muchea (B/P.3)

###### **Bassendean Dunes**

Jandakot (B.3)

Riverdale (B.4)

**Wetland Management Objectives:** Conservation (240.4ha), Resource Enhancement, Multiple Use

**Swan Coastal Plain Lakes EPP:** 5.9ha + 3.4ha + 1ha + 1ha + 1.1ha = 12.4ha (total)

#### **THREATENED ECOLOGICAL COMMUNITIES**

Not assessed, Not determined

### **SECTION 3: SPECIFIC SITE DETAIL**

**Landscape Features:** tall dune, open water, vegetated wetland, creek, vegetated uplands

**Vegetation and Flora:** limited survey (part Site — DEP 1998 (viewed from fence line), EPA and WAWA 1990, Gibson *et al.* 1994 (MELA 01–03, 05–10; ELE 15–16; WARB 01–04), Griffin 1994 (MP 01–11; SF 01–04), Havel 1968 (Transect 3 and Plots 8, 9, 72), Heddle 1980 (Neaves Transect), McArthur and Mattiske 1985, Muir 1983, Trudgen, 1996); detailed survey (Keighery, GJ, 1996 & 1999)

**Structural Units:** mapping (EPA and WAWA 1990, McArthur and Mattiske 1985)

Uplands: Low Open Forests to Low Open Woodlands of *Banksia attenuata*, *B. menziesii* or *B. ilicifolia* or combinations of these, sometimes with *Eucalyptus tottiana*, *E. marginata*, *Nuytsia floribunda* or *Melaleuca preissiana* over mixed Open Heaths to Low Shrublands, sometimes with *Verticordia nitens*, *Adenanthos cygnorum*, *Xanthorrhoea preissii*, *Eremaea pauciflora* or species of *Leucopogon* or *Hibbertia*

Wetlands: Open Forests to Low Open Woodlands of *Eucalyptus rudis*, *Melaleuca preissiana*, *M. raphiophylla* or *Banksia littoralis* or combinations of these; Closed Heaths to Low Shrublands of *Astartea* aff. *fascicularis*, *Hypocalymma angustifolium*, *Regelia ciliata*, *Pericalymma ellipticum* or *Pultenaea reticulata* or combinations of these; Herblands dominated by *Phlebocarya ciliata* and other herbs such as *Patersonia occidentalis* often in combination with a variety of sedges; Sedgelands of *Baumea articulata*, other *Baumea* species, *Juncus pallidus* and *Lepidosperma* species

**Scattered Native Plants:** not assessed

**Vegetation Condition:** >5% Pristine, >85% Excellent to Very Good, <10% Good to Degraded, with areas of severe localised disturbance

**Total Flora:** 272 native taxa (Keighery, GJ 1996) (estimated >60% expected flora)

**Significant Flora:** *Caladenia huegelii* (R); *Conostephium minus* (4), *Stachystemon axillaris* (4); *Boronia purdieana*, *Verticordia nitens*, *Astroloma xerophyllum*, *Eremaea purpurea*, *Hensmania turbinata*, *Stylidium crossocephalum*, *Burchardia bairdiae*; *Lachnostachys albicans* (Keighery, GJ 1999) (most southern record on Swan Coastal Plain)

**Fauna:** multiple survey for reptiles (26 species) and amphibians (8 species) (How & Dell 1994).

Significant reptile species: legless lizard (*Pletholax gracilis*), dragon (*Tympanocryptis adelaidensis*), skinks (*Ctenopus gemmula*, *Egernia napoleonis* and *Acritoscincus trilineatus*), Black-headed Snake (*Parasuta gouldii*) and Black-striped Snake (*Simoselaps calonotos*). Good assemblage of insectivorous birds including Splendid Fairy-wren and nectarivorous birds (J. Dell pers. comm.)

**Linkage:** adjacent native vegetation to the north (Site 462), east (Sites 6, 298 and 300) and west (Sites 398); part of Greenways 40, 41, 36 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous and fragmented bushland/wetland linkage (Part A, Map 7)

**Other Special Attributes:** part recommended for protection in study of City of Wanneroo (Trudgen, 1996), 'contains the most important example remaining in State Forest of the coastal vegetation type characteristic of the Bassendean Dune System' (DCE 1983), part of catchment for Ellenbrook and Egerton wetlands and mound springs (Sites 300 and 93); part Site proposed to become Nature Reserve in Forest Management Plan 1994–2003 (CALM 1994); included in Gnangara Park proposal (Bailey 1997)

### **SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE**

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

### **SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS**

**Criteria:** Representation of ecological communities, Diversity, Rarity, Maintaining ecological processes or natural systems, Scientific or evolutionary importance, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation

**Recommendation:** Part A: Site with Some Existing Protection; the existing care, control and management of this Site is endorsed (Proposed 'Gnangara Park' - Cabinet 1996). Part B: Rural Complementary Mechanism (see Table 3, Volume 1).