

## FORRESTDALE LAKE AND ADJACENT BUSHLAND, FORRESTDALE

**Boundary Definition:** protected area/bushland (part taken to cadastre)/conservation wetland boundary (Areas of bushland within the boundaries of the Site are not accurately mapped. The boundary has been drawn to include any unmapped bushland; Areas of bushland within the boundaries of the Site have been recently cleared. The boundary has been drawn to include cleared bushland; Boundary adjusted after vegetation survey and negotiations with land owner(s) in response to a submission to draft *Perth's Bushplan*.)

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

**Bush Forever Site no.** 345 **Area (ha):** bushland 344.5 (Site also includes open water.)  
**Map no.** 60, 61, 66 **Map sheet series ref. no.** 2033-I SE  
**Other Names:** Submission Area 256  
**Local Authorities (Suburb):** City of Armadale (Forrestdale, Brookdale)  
**Includes CALM Managed Land:** Reserve 24781 (Conservation of Flora and Fauna)  
**System 6 (1983):** M95 area of bushland goes beyond System area boundaries, all bushland described

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

#### **LANDFORMS AND SOILS**

##### **Pinjarra Plain**

Guildford Formation (Qpa: Cs, Sc)

##### **Bassendean Dunes**

Bassendean Sands (Qpb: S8)

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

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

##### **Wetlands (within the Bassendean Dunes/Pinjarra Plain)**

Holocene Swamp Deposits (Qrw: Sp1, Sp2)

##### **Lagoonal and Estuarine Deposits (within the Bassendean Dunes/Pinjarra Plain)**

Lagoonal and Estuarine Deposits (Vasse) (Qhg: LS5)

Lagoonal Deposits in Bassendean Dunes (Qpw: S9)

#### **VEGETATION AND FLORA**

##### **Vegetation Complexes**

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

Bassendean Complex — Central and South

###### **Combinations of Bassendean Dunes/Pinjarra Plain**

Southern River Complex

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

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

4 *Melaleuca preissiana* damplands

8 Herb-rich shrublands in clay pans

10a Shrublands on dry clay flats

12 *Melaleuca teretifolia* and/or *Astartea* aff. *fascicularis* shrublands

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

21a Central *Banksia attenuata* — *Eucalyptus marginata* woodlands

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

#### **WETLANDS**

**Wetland Types:** lake, dampland, sumpland, palusplain, artificial channel

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

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

Jandakot (B.3)

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

Keysbrook (P.1)

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

Bennett Brook (B/P.4)

**Wetland Management Objectives:** Conservation (402.5ha), Resource Enhancement, Multiple Use  
**Swan Coastal Plain Lakes EPP:** 220.5ha + 0.7ha + 2.7ha + 1.8ha + 0.8ha + 1.8ha + 22.7ha = 251ha (total)

#### **THREATENED ECOLOGICAL COMMUNITIES**

Not assessed, Endangered (floristic community type 10a), Vulnerable (floristic community type 8)

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

**Landscape Features:** open water, vegetated wetland, vegetated uplands

**Vegetation and Flora:** limited survey (CALM 1987, part Site — Clarke and Keighery 2000c, EPA and WAWA 1990, Gibson *et al.* 1994 (FL 01–10), Keighery, GJ, 1992a, Keighery, BJ, and Trudgen 1992)

**Structural Units:** mapping (CALM 1987, Keighery, BJ, and Trudgen 1992)

Uplands: *Eucalyptus calophylla* Open Woodland; *Banksia attenuata* and *B. menziesii* Open Forest to Woodland with *Nuytsia floribunda*; *Banksia littoralis* and *B. menziesii* Open Forest to Woodland with *Nuytsia floribunda*

Wetlands: *Eucalyptus rudis* Forest; *Melaleuca preissiana* and *M. raphiophylla* Low Open Forest with patches of *Eucalyptus rudis*; *Melaleuca preissiana* Open Woodland; *Melaleuca raphiophylla* Low Closed Forest; *Melaleuca uncinata*, *M. polygaloides* and *M. viminea* Closed Heath; *Regelia ciliata* Closed Heath; *Melaleuca teretifolia* and *M. viminea* Open Heath; mixed Closed Hermland; *Hypolaena exsulca*, *Lyginia barbata* and *Schoenus curvifolius* Closed Sedgeland; *Leptocarpus canus* Sedgeland; mixed Sedgelands; Closed Sedgelands dominated by *Baumea articulata*, \**Typha orientalis* and *Bolboschoenus caldwellii*

**Scattered Native Plants:** *Melaleuca raphiophylla* Low Closed Forest to Low Open Woodland, *Banksia attenuata* and *B. menziesii* Open Forest to Woodland, scattered native shrubs

**Vegetation Condition** (bushland): >50% Excellent to Very Good, <50% Good to Degraded, with areas of severe localised disturbance

**Total Flora:** 312 native taxa (Keighery, GJ, 1992a) (estimated >75% expected flora)

**Significant Flora:** *Diuris purdiei* (R), *Drakaea elastica* (R); *Acacia lasiocarpa* subsp. *bracteolata* (1) (Keighery, GJ, 1992a), *Eryngium pinnatifidum* subsp. *palustre* ms (2), *Stylidium mimeticum* (3) (Keighery, GJ, 1992a), *Villarsia submersa* (4), *Drosera occidentalis* (4), *Verticordia lindleyi* subsp. *lindleyi* (4) (Keighery, GJ, 1992a), *Anthotium junciforme* (4) (Keighery, GJ, 1992a); *Pimelea imbricata* var. *major*, *Villarsia violifolia*, *Burchardia bairdiae*, *Leptocarpus* sp. Forrestdale Lake, *Myriocephalus helichrysoides*

**Fauna:** multiple survey for birds (135 species) (RAOU 1996 D, numerous visits, and CALM 1987), limited survey for native mammals (4 species), reptiles (15 species) and amphibians (7 species) (CALM). Important feeding area for exceptionally wide variety of waterbirds and a large assemblage (21 species) and population level of trans-equatorial wading birds protected under the JAMBA/CAMBA treaties. Significant bird species: category 1 (2), category 2 (21), category 3 (16) and category 4 (9). Significant mammal species: Quenda and Western Brush Wallaby. Significant reptile species: Swamp Skink (*Acritoscincus trilineatum*), Lined Skink (*Lerista lineata*) and Crowned Snake (*Notechis coronatus*)

**Linkage:** adjacent bushland to the north, south and east; part of Greenways 81, 118, 69, 97 (Tingay, Alan & Associates 1998a); part of a regionally significant fragmented bushland/wetland linkage (Part A, Map 7)

**Other Special Attributes:** 'wetland of special note' (Payne 1993a); majority Site Category One and Two Areas, Middle Canning Catchment Study (Evangelisti & Associates *et al.* 1995); National Trust of Australia (WA) Classification; contains plant communities representative of the eastern side of the Swan Coastal Plain

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

Wetlands of International Importance (Ramsar); Directory of Important Wetlands in Australia; Entered in the Register of the National Estate (Forrestdale Lake); Indicative place (AHC 2000 D) (Forrestdale Lake Adjacent Wetlands); location for JAMBA/CAMBA species; 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, 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 purpose, care, control and management of Reserve 24781 is endorsed. Parts of the Site are already reserved for Parks and Recreation in the Metropolitan Region Scheme, and should be added to Forrestdale Lake Nature Reserve. Part B: Rural Complementary Mechanism. Part C: Proposed Parks and Recreation Reservation (see Table 3, Volume 1).