

MUNDIJONG AND WATKINS ROADS BUSHLAND, MUNDIJONG/PEEL ESTATE

Boundary Definition: protected area/bushland (part taken to cadastre)/management boundary (Areas of bushland within the boundaries of the Site are not accurately mapped. The boundary has been drawn to include any unmapped bushland.)

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 360

Area (ha): bushland 73.8 (some not mapped)

Map no. 71, 72, 73

Map sheet series ref. no. 2033–II NE, 2133–III

NW

Other Names: Submission Area 281, Location 21 and 22 (Keighery, BJ, and Trudgen 1992), Watkins Rd Reserve

Local Authorities (Suburb): Shire of Serpentine-Jarrahdale (Mundijong, Mardella, Oldbury)

Includes CALM Managed Land: Reserve 23012 (Conservation of Flora)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Foothills

Colluvial Deposits (Qc: Csg)

Yoganup Formation (Qpr: S12)

Armadale Shale (Pa: SH)

Pinjarra Plain

Guildford Formation (Qpa: CS, C2) (Qha: Msc1)

Bassendean Dunes/Pinjarra Plain

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

VEGETATION AND FLORA

Vegetation Complexes

Foothills

Forrestfield Complex (Ridge Hill Shelf, Darling Plateau)

Pinjarra Plain

Guildford Complex

Floristic Community Types *not sampled, types inferred

Supergroup 1: Foothills/Pinjarra Plain

3a *Eucalyptus calophylla* — *Kingia australis* woodlands on heavy soils (Mundijong Rd)

3c *Eucalyptus calophylla* — *Xanthorrhoea preissii* woodlands and shrublands (Mundijong Rd)

*S8 *Eucalyptus wandoo* woodlands (Scarp) (Watkins Rd)

Supergroup 2: Seasonal Wetlands

*2 Southern wet shrublands (Watkins Rd)

8 Herb-rich shrublands in clay pans (Mundijong Rd)

9 Dense shrublands on clay flats (Mundijong Rd)

*10a Shrublands on dry clay flats (Watkins Rd)

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

*20b Eastern *Banksia attenuata* and/or *Eucalyptus marginata* woodlands (Watkins Rd)

WETLANDS

Wetland Types: palusplain, artificial channel, creek, sumpland

Natural Wetland Groups

Darling Plateau

Little Dardanup (D.2)

Pinjarra Plain

Keysbrook (P.1)

Wetland Management Objectives: Conservation (51.5ha), Multiple Use

Swan Coastal Plain Lakes EPP: 2.5ha

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Not determined, Critically Endangered (floristic community types 2, 3a, 3c, 10a, 20b),

Vulnerable (floristic community types 8, 9)

SECTION 3: SPECIFIC SITE DETAIL (described in two parts)

Mundijong Road (from intersection Duckpond and Mundijong Roads, east to Watkins Road)

Landscape Features: vegetated wetland, vegetated uplands

Vegetation and Flora: limited survey (Gibson *et al.* 1994 (Duck 0–03, Mud 02–09), Keighery, BJ, and Trudgen 1992, Keighery, GJ, *et al.* 1995, Shire of Serpentine-Jarrahdale 1992); detailed survey (Keighery, GJ, 1996c, Keighery, BJ, *et al.* 1997)

Structural Units: mapping (Keighery, BJ, 1996c, Keighery, BJ, *et al.* 1997)

Uplands: *Eucalyptus calophylla* Forest to Woodland

Wetlands: *Eucalyptus calophylla* Forest to Woodland; *Casuarina obesa* Forest to Woodland; *Eucalyptus rudis* Woodland to Forest; *Melaleuca raphiophylla* Woodland to Forest; *Melaleuca* Open Heath to Shrubland dominated by *Melaleuca viminea*, *Melaleuca uncinata*, *M. lateriflora* and combinations of these; *Actinostrobos pyramidalis* Closed Tall Scrub to Shrubland; *Viminaria juncea* High Shrubland; *Melaleuca viminea* Tall Shrubland; *Pericalymma ellipticum* Heath; *Regelia ciliata* Heath; mixed Low Open Heath; Herblands dominated by *Borya* species, *Tribonanthes* species, *Stylidium* species and others in combination; Sedgeland dominated by *Meeboldinia cana*, *M. aristatus*, *M. coangustatus*, *Cyathochaeta avenacea*, *Chorizandra enodis* and combinations of these; *Themeda triandra* Grassland

Scattered Native Plants: scattered areas of Woodland to Forest dominated by *Eucalyptus calophylla*, *Casuarina obesa* and *Melaleuca raphiophylla* Low Forest to Woodland

Vegetation Condition: >50% Excellent to Very Good, <50% Good to Completely Degraded, with areas of severe localised disturbance (Keighery, BJ, 1996c, Keighery, BJ, *et al.* 1997a)

Total Flora: 253 native taxa (Keighery, BJ, *et al.* 1997c) (estimated 90% expected flora)

Significant Flora: *Verticordia plumosa* var. *pleiobotrya* (R), only known from the Mundijong area), *Tetraria australiensis* (R), *Acacia lasiocarpa* var. *bracteolata* (1), *Eryngium pinnatifidum* subsp. *palustre* (2), *Myriophyllum echinatum* (3), *Stylidium mimeticum* (3), *Stylidium longitubum* (3), *Baekkea tenuifolia* (3), *Anthotium junciforme* (4), *Aponogeton hexatepalus* (4); *Angianthus drummondii* — *preissianus* — *micropodioides* group, *Podolepis gracilis* (Swamp form), *Pogonolepis stricta* 'long bract form', *Drosera micrantha* subsp. *micrantha* (Swan Coastal Plain form), *Themeda triandra* (normally occurring in Wandoo Woodland, here occurring in Marri Woodland), *Leptocarpus* aff. *crebriculmis* (BJK and NG 236), *Kennedia stirlingii* (most western record), *Trichocline spathulata*; including 74 taxa characteristic of the eastern side of the Swan Coastal Plain and at least 12 taxa endemic to the eastern side of the Plain

Fauna: Significant mammal species: Quenda (Friend 1996 D)

Linkage: adjacent bushland to the north (Site 350), south (Site 365) and east; part of Greenways 66, 87, 88, 129 (Tingay, Alan & Associates 1998a); part of a regionally significant fragmented bushland/wetland linkage (Part A, Map 7)

Other Special Attributes: identified since the early 1990s in a series of reports as being a regionally significant roadside remnant (Shire of Serpentine-Jarrahdale 1992, Keighery, BJ, and Trudgen 1992, Keighery, GJ, and Keighery 1992, Keighery, GJ, *et al.* 1995, Keighery, BJ, 1996c, Keighery, BJ, *et al.* 1997b); part Site Threatened or Poorly Reserved Plant Community (EPA 1994 GIS); contains plant communities representative of the eastern side of the Swan Coastal Plain

Watkins Road Nature Reserve and bushland to east and north (corner South West Highway and Watkins Road)

Landscape Features: vegetated wetland, vegetated upland

Vegetation and Flora: limited survey (Keighery, BJ, and Trudgen 1992)

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

Uplands: *Eucalyptus calophylla* Low Open Woodland; *Eucalyptus wandoo* Woodland; *Banksia menziesii*, *B. attenuata* and *B. grandis* Low Woodland; *Eucalyptus marginata* Low Woodland
Wetlands: scattered *Melaleuca preissiana* in *Viminaria juncea* and *Hakea trifurcata* Tall Shrubland to Tall Open Shrubland; *Pericalymma ellipticum* Closed Heath; *Melaleuca* Low Woodland; *Lepidosperma longitudinale* Sedgeland

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

Total Flora: not known

Significant Flora: *Tetraria australiensis* (R)

Bush Forever Site Description (from *Bush Forever* Volume 2 Government of WA 2000),
for the Maps see Volume 1

Fauna: Significant mammal species: Quenda (Friend 1996 D)

Linkage: fragmented bushland/canopy linkage to east (Darling Range Regional Park (DPUD 1993));
part of Greenway 66 (Tingay, Alan & Associates 1998a)

Other Special Attributes: contains plant communities representative of the eastern side of the Swan
Coastal Plain

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, 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 23012 is endorsed. Part B: Other Government Land Mechanism. Part C:
Proposed Parks and Recreation Reservation. Part D: Major Road and Rail Reserve Mechanism;
MRWA Road Reserve (design and management). Part E: Rural Complementary Mechanism (see Table
3, Volume 1).