

BLACKWALL REACH, POINT WALTER, ALFRED COVE AND ADJACENT BUSHLAND, BICTON TO APPLECROSS

Boundary Definition: protected area/bushland (part taken to cadastre)/bushland group boundary
(Areas of bushland/native vegetation within the boundaries of the Site are not accurately mapped.)

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 331

Area (ha): bushland 30.8

Map no. 52

Map sheet series ref. no. 2033-I NW

Other Names: Point Waylen, Submission Area 188

Local Authorities (Suburb): City of Melville (Attadale, Alfred Cove)

Includes CALM Managed Land: Reserve 35066 (Conservation of Flora and Fauna), 44414
(Conservation and Radio Facilities)

System 6 (1983): M58 and part M61 area of bushland goes beyond System area boundaries, all
bushland described

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Pinjarra Plain

Guildford Formation (Qha: S14, Sm1)

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

Tamala Limestone (Qtl: LS1)

VEGETATION AND FLORA

Vegetation Complex

Spearwood Dunes

Karrakatta Complex — Central and South

Cottesloe Complex — Central and South

Floristic Community Types

Supergroup 2: Seasonal Wetlands

16 Highly saline seasonal wetlands

S7 Northern woodlands to forests over tall sedgeland alongside permanent wetlands (most
southern occurrence)

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

24 Northern Spearwood shrublands and Woodlands

WETLANDS

Wetland Types: estuary (waterbody), estuary (shoreline and peripheral)

Natural Wetland Groups

Estuaries

Swan River (E.2)

Wetland Management Objectives: Conservation (10.5ha)

Swan Coastal Plain Lakes EPP: none identified

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Not determined

SECTION 3: SPECIFIC SITE DETAIL

Blackwall Reach and Point Walter

Landscape Features: estuary — limestone cliff, vegetated wetland, estuary, vegetated uplands

Vegetation and Flora: limited (Gibson *et al.* 1994 (Ptwalt 01), Smith and Smith 1986, Greening WA
Pt Walter Group 1994); detailed survey (part Site — Keighery, GJ, 1991a)

Structural Units

Spearwood Dunes

Uplands — Sands derived from Tamala Limestone: *Agonis flexuosa* Woodland and *Banksia
attenuata*, *Banksia grandis* and *B. menziesii* Woodland; *Eucalyptus marginata* and *Eucalyptus
calophylla* Tall Woodland

Tamala Limestone: *Olearia axillaris*, *Rhagodia baccata*, *Alyxia buxifolia* and *Clematis microphylla*
Shrubland; Open Heath to Open Low Heath dominated by *Acacia rostellifera*, *Dryandra sessilis*
var. *cygnorum* and *Melaleuca systema*; *Banksia prionotes* Low Woodland

Wetlands (wetflats): *Casuarina obesa* Low Open Woodland; *Juncus maritimus* and *Lepidosperma gladiatum* Open Sedgeland; *Sporobolus virginicus* Very Open Grassland

Scattered Native Plants: *Eucalyptus gomphocephala* Tall Open Woodland; *Acacia cyclops* Tall Open Shrubland

Vegetation Condition: >60% Very Good, <40% Good to Degraded, with areas of severe localised disturbance (Greening WA Pt Walter Group 1994)

Total Flora: 146 native taxa, 67 weed taxa (compiled from Keighery, GJ, 1991a, Greening WA Pt Walter Group 1994, Smith and Smith 1986) (estimated >80% expected flora)

Significant Flora: *Lechenaultia linarioides*, *Caladenia latifolia* (white flowers), *Agonis flexuosa* (possibly most easterly occurrence), *Alyogyne huegelii* var. *glabrescens* (uncommon in PMR), *Alyxia buxifolia* (rarely recorded for the mainland, common on adjacent offshore islands and Yalgorup National Park), *Pittosporum phylliraeoides* var. *phylliraeoides* (common only on adjacent offshore islands and in Yanchep and Yalgorup National Park), *Conospermum triplinervium*; typical Tamala Limestone taxa — *Templetonia retusa* and *Grevillea preissii*; a series of species associated with the Spearwood Dunes (sands and Tamala Limestone) the occurrence of which is extended inland along the river — *Acacia lasiocarpa* var. *lasiocarpa*, *Acacia xanthina*, *Acanthocarpus preissii*, *Alyxia buxifolia*, *Conostylis candicans*, *Conostylis aculeata* subsp. *cygnorum*, *Dryandra sessilis* var. *cygnorum*, *Eucalyptus gomphocephala*, *Grevillea vestita*, *Pittosporum phylliraeoides* var. *phylliraeoides*, *Scaevola nitida* and *Templetonia retusa*

Fauna: limited survey for birds (32 species) and reptiles (8 species) (Smith and Smith 1986).

Significant bird species: category 4 (1)

Other Special Attributes: is one of a very limited number of bushland areas on the Swan Estuary, naturally vegetated areas on the Swan Estuary having particular conservation value in providing habitat for fauna and linkage between areas of bushland; part open space of regional significance (DCE 1983)

Alfred Cove

Landscape Features: vegetated wetland

Vegetation and Flora: limited survey (DEP 1996 (Alfr 01–02), EPA 1987, Pen 1983); detailed survey (Keighery, GJ, 1990b)

Structural Units: mapping (Pen 1983)

Wetlands (wetflats): *Eucalyptus rudis* Forest to Woodland; *Melaleuca raphiophylla* Low Open Forest to Low Woodland; Open Low Heath dominated by *Sarcocornia quinqueflora* or *Halosarcia halocnemoides*; Closed Sedgelands to Sedgelands dominated by *Bolboschoenus caldwellii*, *Schoenus subfascicularis*, *Baumea juncea* and *Juncus kraussii*

Scattered Native Plants: *Eucalyptus rudis* Forest to Woodland, *Melaleuca raphiophylla* Low Open Forest to Low Woodland — regionally significant vegetation recognised as being included in the area of Site in need of protection

Vegetation Condition: >75% Very Good to Excellent, <25% Good to Degraded, with areas of severe localised disturbance

Total Flora: 84 native taxa, 89 weed taxa (Keighery, GJ, 1990b) (estimated >90% expected flora)

Significant Flora: *Angianthus micropodioides* (3); *Burchardia bairdiae*, *Gyrostemon ramulosus* (southernmost record, only one plant remains), *Cyperus laevigatus* (only record on the Plain, possibly a weed), *Tribonanthes* aff. *violacea* (associated with freshwater seepages)

Fauna: multiple surveys for birds (132 species) (EPA 1987; RAOU 1996 D, 50 visits). Important feeding area for large assemblage (30 species) and population levels of trans-equatorial wading birds protected under the JAMBA/CAMBA treaties. Important breeding place for 30 species. Significant bird species: category 1 (2), category 2 (30), category 3 (11) and category 4 (6). Significant mammal species: Quenda (Friend 1996 D)

Other Special Attributes: National Trust of Australia (WA) Classification; 'last remaining area of shoreline samphire and rush on the lower estuary' (EPA 1987); the 'Middle Holocene beds are, as far as known, the last substantially undisturbed example on the Swan River, all others having been destroyed or buried by shore reclamation' (G.W. Kendrick pers. comm.); the Pt Waylen Shell Bed is the only undisturbed surface outcrop of a marine-gulf deposit of Middle Holocene age within the Swan River Estuary (Lemmon *et al.* 1979); is one of a very limited number of bushland areas on the Swan Estuary, naturally vegetated areas on the Swan Estuary having particular conservation value in providing habitat for fauna and linkage between areas of bushland; part open space of regional significance (DCE 1983)

Alfred Cove to Point Walter

Landscape Features: vegetated wetland

Vegetation and Flora: limited survey (DEP 1996)

Scattered Native Plants: *Eucalyptus rudis* Forest to Woodland, *Melaleuca rhapsiophylla* Low Open Forest to Low Open Woodland — regionally significant vegetation recognised as being included in the area of Site in need of protection

Linkage: (Blackwall Reach, Point Walter, Alfred Cove and adjacent bushland) no adjacent bushland; part of Greenway 24 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous bushland/wetland linkage (Part A, Map 7)

Other Special Attributes: naturally vegetated areas on the Swan Estuary have particular conservation value in providing habitat for fauna and linkage between larger more intact areas of bushland; one of the few naturally vegetated areas on the Swan Estuary; open space of regional significance (DCE 1983)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Directory of Important Wetlands in Australia (Swan–Canning Estuary); Entered in the Register of the National Estate; 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, 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: Site with Some Existing Protection; the existing purpose, care, control and management of Reserves 35066, 44414 is endorsed. Remainder of the Site — the existing care, control and management intent of the reserve is endorsed (see Table 3, Volume 1).