

COASTAL STRIP FROM BURNS BEACH TO HILLARYS

Boundary Definition: protected area/bushland (part taken to zoning) boundary (Boundary adjusted from that in draft *Perth's Bushplan*.)

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 325

Area (ha): bushland 195.3

Map no. 27, 33

Map sheet series ref. no. 2034–III NE, 2034–IV

SE

Other Names: includes Submission Area 29 Ocean Reef Road

Local Authorities (Suburb): City of Joondalup (Ocean Reef, Iluka, Hillarys, Mullaloo, Kallaroo)

System 6 (1983): Part M2 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)

Quindalup Dunes (Holocene dunes)

Safety Bay Sands (Qhs: S1, S2)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Cottesloe Complex — Central and South

Quindalup Dunes

Quindalup Complex

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

*16 Highly saline seasonal wetlands (*Frankenia pauciflora* Low Shrubland on Tamala Limestone Cliffs)

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

27 Species-poor mallees and shrublands on limestone

29a Coastal shrublands on shallow sands

*29b *Acacia* shrublands on taller dunes

*S11 Northern *Acacia rostellifera* — *Melaleuca acerosa* shrublands

*S13 Northern *Olearia axillaris* — *Scaevola crassifolia* shrublands

*S14 *Spinifex longifolius* grasslands and low shrublands

WETLANDS

No wetlands mapped (wetland identified above is the *Frankenia pauciflora* Low Shrubland)

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Not determined

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: ocean — limestone cliff and coastal dune vegetation

Vegetation and Flora: limited survey (part Site — DEP 1999, Gibson *et al.* 1994 (Burn 01–02), Griffin 1994 (BU 01–04), Keighery, GJ, and Keighery 1992a, Semeniuk, V&C Research Group 1991)

Structural Units

Spearwood Dunes

Uplands — Tamala Limestone: Closed to Open Low Heaths dominated by *Melaleuca cardiophylla* (southernmost large population), *M. huegelii*, *Dryandra sessilis* var. *cygnorum*, *Scaevola crassifolia*, *Spyridium globulosum* and *Templetonia retusa*; *Frankenia pauciflora* Low Shrubland (cliff-edge community, relatively large area to south of Burns Beach)

Quindalup Dunes

Oldest dunes and plains (limited area, atypical as close to coast): Open Low Heaths to Shrublands dominated by *Melaleuca systema*, *Acacia rostellifera*, *A. xanthina* and *Olearia axillaris*

Youngest dunes: Open Low Heaths to Shrublands dominated by *Myoporum insulare*, *Scaevola crassifolia*, *Acacia rostellifera*, *A. xanthina* and *Olearia axillaris*

Strand: *Spinifex* Grassland

Scattered Native Plants: not assessed

Vegetation Condition: ranges from Excellent to Degraded, with areas of severe localised disturbance; see comments in Other Special Attributes (below)

Total Flora: 38 native taxa, 8 weed taxa (part Site — Keighery, GJ, and Keighery 1992a) (estimated >60% expected flora)

Significant Flora: *Hibbertia spicata* subsp. *leptotheca* (3); *Melaleuca cardiophylla*, *Plantago exilis* (only known record in the PMR, uncommon — Keighery 1992), *Alyogyne huegelii* var. *glabrescens* (Keighery 1992), *Kennedia coccinea*

Fauna: not known

Linkage: adjacent bushland to the east; part of Greenways 4, 1, 10 (Tingay, Alan & Associates 1998a); part of a regionally significant fragmented bushland/wetland linkage (Part A, Map 7)

Other Special Attributes

Site constrained in meeting the specific coastal reserve criteria; four met to a limited extent —

- (i) Quindalup Dune types: predominantly younger dunes
- (ii) Continuing natural processes: 214.7ha (146.1ha bushland) of Quindalup Dunes extending to maximum of 0.8km inland, dunes truncated
- (iii) Shoreline: soft (sandy) and hard (rocky); vegetated areas south of Burns Beach are the best remaining example of a 'limestone ridge forming cliffs' in the north-west corridor of the PMR (Semeniuk, V&C Research Group 1991)
- (iv) Linkage: part of semi-contiguous North—South vegetated coastal strip;

Includes near-coastal sections of areas recommended for conservation by Semeniuk, V&C Research Group (1991a)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed; Indicative place (AHC 2000 D)

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

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

Recommendation: Part A: 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 . Part B: Other Government Land Mechanism (see Table 3, Volume 1).