

## SITE DESCRIPTION: JF7 - MONADNOCKS CONSERVATION PARK

**Boundary Definition:** Reserve boundary as per CAD Reserves GIS Shapefile (DEC 2006)

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

**Perth Regional Plant Biodiversity Jarrah Forest Reference Site no.** JF7      **Area (ha):** 1,542

**Map no.** JF7 Maps, 1, 2, 3 and 4

**Other Names:** A class reserve no. 39826

**Local Authorities (Suburb):** City of Armadale, Shire of Wandering

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

#### **LANDFORMS (HAVEL AND MATTISKE 2000)**

Cooke (Ce) = Darling Plateau – Moderate to steep slopes of monadnocks

Dwellingup (D) = Darling Plateau – Lateritic uplands

Murray (My) = Darling Plateau – Moderately incised valleys

Pindalup (Pn) = Darling Plateau – Minor valleys, moderately incised

Yarragil (Yg) = Darling Plateau – Minor valleys, shallowly incised.

Swamp (S) = Darling Plateau – Floors of broad valleys and depressions.

#### **VEGETATION AND FLORA (HAVEL AND MATTISKE 2000)**

**Vegetation Complexes** (see maps 1 and 3)

Cooke (Ce)

Dwellingup 2 (D2)

Dwellingup 4(D4)

Murray 1 (My1)

Pindalup (Pn)

Swamp (S)

Yarragil 1 (Yg1)

Yarragil 2 (Yg2)

#### **Ecological Vegetation Systems**

Rs3, JP4, Ip3, NM6, W12, Sw3, H16

#### **WETLANDS**

**Wetland Types:** Minor unnamed conservation category wetlands west of Albany Highway listed in Conservation Category Wetland GIS Database (DEC 2004), sections of the Canning River and minor tributaries (WA Major Rivers GIS Database DEC 2004).

#### **THREATENED ECOLOGICAL COMMUNITIES**

None listed in TEC and PEC GIS Shapefiles (DEC 2007)

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

**Landscape Features:** (Havel and Mattiske 2000)

MN1: My1, creekline (containing reference point MCP1) is a major valley moderately incised into the humid zone of the northern Darling Plateau with red brown earth and red and yellow duplex soils. D2 (surrounding uplands) consist of upland ridges and spurs in the subhumid zone of the northern Darling Plateau with gravely duplex soils and lateritic outcrops.

MN2: Ce, large granite outcrop on the moderate to steep slopes of monadnocks rising above the northern Darling Plateau in the subhumid to semiarid zones. Soils range from bare rock and skeletal sandy loams through red brown duplex soils to gravely yellow duplexes. Mostly surrounded by D2 as described above and Pn to the south east consisting of minor valleys shallowly incised into the subhumid to arid zones of the northern Darling Plateau, with soils ranging from sandy to gravely duplexes.

MN3: S, consists of floors of broad valleys and depressions in the northern Darling Plateau with bleached loamy or sandy duplex soil, seasonally waterlogged. Mostly surrounded by Pn, consisting of minor valleys shallowly incised into the humid zone of the northern Darling Plateau with soils ranging from orange earths and humus podzols on valley floor to red and yellow gravely duplex soils on slopes; and D2 uplands on lateritic ridges to the south.

### Vegetation and Flora:

MN1: Creekline vegetation of Blackbutt and Flooded Gum over tall dense shubland dominated by *Grevillea diversifolia* in My1 area Jarrah / Marri Woodland high on D2 grading down through open Wandoo woodlands and shrublands to Blackbutt/Flooded Gum woodlands closer riparian areas with Marri/ Blackbutt open woodland dominating higher drainage lines.

MN2: Lithic complex varying from bare rock through cryptogam layers to shrublands on sand deposits. Surrounding vegetation varies from shrubland in shallow soils bordering the monolith through to Jarrah/Marri woodlands on deeper surrounding soils.

MN3: Dominant vegetation is Sedgeland of *Baumea articulata*, *Meeboldina cana*, *Meeboldina scariosa*, Shrubland of *Astartea affinis*, *Pericalymma ellipticum*, *Melaleuca viminea* (in thickets), *Hakea marginata*, *Hakea varia*, *Hakea ceratophylla*, *Xanthorrhoea preissii* with emergents of *Melaleuca preissiana* and *Nuytsia floribunda*. (Molloy 2007).

### Structural Units (Havel and Mattiske 2000)

Rs3= Vegetation ranges from Lithic Complex, Herbfield, Heath through Woodland of *Corymbia calophylla*, *Eucalyptus wandoo*, *Eucalyptus laeliae* and *Allocasuarina heugliana* to Open Forest of *Eucalyptus marginata* subsp. *marginata*, *Corymbia calophylla* on milder slopes with deep soils. Common shrub and herb species are *Borya sphaerocephala*, *Grevillea bipinnatifida*, *Hakea undulata*, *Hakea lissocarpha*, *Trymalium ledifolium*, *Hakea trifurcata* on shallow soils; *Adenanthos barbiger*, *Grevillea wilsonii*, *Styphelia tenuiflora* and *Hovea chorizemifolia* on deeper soils.

JP4= Open Forest of *Eucalyptus marginata* subsp. *marginata* and *Corymbia calophylla* with second storey of *Allocasuarina fraseriana*, *Banksia grandis* and *Persoonia longifolia*. Shrub and herb storey consists of *Adenanthos barbiger*, *Leschenaultia biloba*, *Hakea ruscifolia*, *Hovea chorizemifolia*, *Styphelia tenuiflora* on the sandier soils and *Leucopogon propinquus*, *Leucopogon capitellatus* and *Hakea lissocarpha* on the loamier soils.

Ip3= Dominant vegetation is Woodland to Open Forest of *Eucalyptus marginata* subsp. *thalassica* in the north, *Eucalyptus marginata* subsp. *marginata* in the south, and *Corymbia calophylla* with weakly developed second story of *Allocasuarina fraseriana*, *Banksia grandis* and *Persoonia longifolia*. Some intrusion into slopes from *Eucalyptus wandoo* and *E. accedens*. Shrub and herb storey consists of *Patersonia rudis*, *Leschenaultia biloba*, *Hakea ruscifolia*, *Petrophile serruriae*, *Styphelia tenuiflora* on the sandier soils and *Gastrolobium calycinum*, *Leucopogon propinquus*, *Leucopogon capitellatus* *Hakea lissocarpha* and *Macrozamia riedlei* on the loamier soils.

NM6 = Vegetation ranges from Woodland of *Eucalyptus patens* over *Banksia seminuda*, *Callistachys lanceolata* and *Agonis flexuosa* on valley floor to Open Forest of *Corymbia calophylla* and *Eucalyptus marginata* subsp. *marginata* with second storey of *Banksia grandis* and *Persoonia longifolia* on slopes. Shrub and herb storey of *Grevillea diversifolia*, *Trymalium floribundum*, *Hypocalymma cordifolium*, *Lepidosperma tetraquetrum* and *Chorizema ilicifolium* on valley floor to *Bossiaea aquifolium* subsp. *aquifolium*, *Leucopogon verticillatus*, *Leucopogon capitellatus*, *Macrozamia riedlei*, *Acacia urophylla* and *Pteridium esculentum* on slopes.

W12= Vegetation is primarily Woodland of *Eucalyptus wandoo* and *Corymbia calophylla* with *Eucalyptus rudis* and *Eucalyptus patens* near streamlines and *Eucalyptus accedens* and *Eucalyptus marginata* subsp. *thalassica* on transition to uplands. Shrub and herb storey ranges from shrublands of *Kunzea recurva*, *Lepidosperma leptostachyum*, *Hakea varia*, *Hakea ceratophylla*, *Melaleuca viminea*, *Melaleuca incana*, *Hypocalymma angustifolium* and *Meeboldina scariosa* on valley floors to *Hakea lissocarpha*, *Macrozamia riedlei*, *Patersonia rudis* and *Hakea incrassata* on slopes.

H16= Vegetation ranges from Woodland of *Eucalyptus megacarpa*, *Eucalyptus patens* with *Banksia littoralis* and tall shrub and sedge storey of *Taxandria linearifolia*, *Lepidosperma tetraquetrum*, *Astartea fascicularis*, *Mesomelauna tetragona* and *Ghania trifida* on valley floor to Open Forest of *Eucalyptus marginata* subsp. *marginata* and *Corymbia calophylla* with a second storey of *Banksia grandis*, *Persoonia longifolia* and *Allocasuarina fraseriana* on slopes. Shrub and herb storey under the forest consists of *Grevillea wilsonii*, *Styphelia tenuiflora*, *Adenanthos barbiger*, *Hakea ruscifolia*, *Leschenaultia biloba*, *Baekkea camphorosmae* and *Hakea lissocarpha*.

NM6 = Vegetation ranges from Woodland of *Eucalyptus patens* over *Banksia seminuda*, *Callistachys lanceolata* and *Agonis flexuosa* on valley floor to Open Forest of *Corymbia calophylla* and *Eucalyptus marginata* subsp. *marginata* with second storey of *Banksia grandis* and *Persoonia longifolia* on slopes. Shrub and herb storey of *Grevillea diversifolia*, *Trymalium floribundum*, *Hypocalymma cordifolium*, *Lepidosperma tetraquetrum* and *Chorizema ilicifolium* on valley floor to *Bossiaea aquifolium* subsp. *aquifolium*, *Leucopogon verticillatus*, *Leucopogon capitellatus*, *Macrozamia riedlei*, *Acacia urophylla* and *Pteridium esculentum* on slopes.

Sw3 = Dominant vegetation is Sedgeland of *Baumea articulata*, *Meeboldina cana*, *Meeboldina scariosa*, Shrubland of *Melaleuca lateriflora*, *Melaleuca viminea*, *Melaleuca pauciflora*, *Melaleuca lateritia*, *Hakea marginata*, *Hakea varia*, *Hakea ceratophylla* with emergents of *Actinostrobos pyramidalis*, *Melaleuca preissiana* and *Banksia littoralis*.

**Vegetation Condition:** In general the condition of the reserve at all three reference points is very good. Most of the area has been logged and managed for timber production until the mid 1980s. This is still evident in the relatively homogenous vegetation structure of the Park. There is Jarrah Dieback *Phytophthora cinnamomi* present in the park and most of the exfoliated granite sheets have been removed from Sullivan's Rock (MCP2) causing changes to the fauna and floristic communities at this site (Molloy 2007).

**Total Flora:** Unknown

**Significant Flora:** *Acacia oncinophylla* subsp. *oncinophylla* (P3) can be found in surrounding uplands (2005 DEC threatened and priority plant species GIS data base)

**Fauna:** The Monadnocks Conservation Park provides habitat resources for a wide range of fauna species including; Western Grey Kangaroos *Macropus fuliginosis*, Black Gloved Wallabies *Macropus irma*, the Western Quoll *Dasyurus geoffroii*, Echidna *Tachyglossus aculeatus*, Brush-tailed Phascogale *Phascogale tapoatafa*, Quokka *Setonix brachyurus*, Woylie *Bettongia pencillata* as well as many bird and reptile species (John Dell pers. comm.). Feral Pig *Sus scrofa* and Rabbit *Orytolagus cuniculus* impacts are common throughout the Monadnocks Conservation Park. Fox baiting is undertaken through the Western Shield program (Kevin Pollack pers. com.).

**Linkage:** Forms a landscape scale linkage in both North/South and East/West directions and is wholly enclosed in Jarrahdale State Forest.

**Other Special Attributes:** Monadnocks Conservation Park is managed by the Department of Environment and Conservation (Swan Region) and is an A class conservation reserve. The Bibbulman Track runs through the Park crossing directly over Sullivan's Rock (MN2)

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

None listed.

#### **References**

Havel, J.J. and Mattiske, E.M. (2000) Vegetation mapping of South West Forest Regions of Western Australia, Department of Conservation and Land Management, Perth.

Molloy, S., (2007) Jarrah forest reference site field notes. Northern Transect. Unpublished.