



MATTISKE CONSULTING PTY LTD

Botanists and Environmental Scientists

28 Central Road, Kalamunda, WA, 6076

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Flora and Vegetation Values Wungong

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Presentation compiled by **CAD Resources** ~ Tel: 9246 3242 ~ Fax: 9246 3202 ~ URL: www.cadresources.com.au





Objectives

◆ Botanical Values

- ◆ Define the flora and vegetation values in selected sites to assess potential changes in response to thinning of vegetation on slopes.
- ◆ Establish sampling regimes to assess potential shifts in the vegetation in response to local changes in hydrological conditions.
- ◆ Compare findings between the respective sites (in relation to topography, landforms, soils and proximity to seasonally wet/moist surface soils).
- ◆ Prepare baseline summary and review options for future monitoring needs.









Methodology

- ◆ Transects - four
- ◆ Trees – 10m strip to right of centre line
- ◆ All tree species – species, height, DBH (if greater than 130cm), condition, cause of physiological stress
- ◆ Understorey – 2m² quadrat every 5m along transect (left of centre line)
- ◆ All understorey species – species, numbers (alive and dead) and percentage foliage cover (alive and dead)
- ◆ Spring months of 2005
- ◆ Expanding in 2006 – depending on relationships
- ◆ Interpretation of findings in relation to distribution, rarity, lifeforms, soil moisture regimes









Tree Species

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- ◆ Wetter Site Species
- ◆ Moister Site Species
- ◆ Drier Site Species
- ◆ Wide Tolerance of Site Species





Trees –T3

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Species	Height	Health	Stem/ha
<i>Banksia grandis</i>	354.0 ± 71.27	2.5 ± 0.27	6.2
<i>Banksia littoralis</i>	370.8 ± 44.67	3.81 ± 0.09	16.2
<i>Corymbia calophylla</i>	725.0 ± 75.00	4.0 ± 0.00	1.5
<i>Eucalyptus marginata</i>	640.0 ± 105.09	2.6 ± 0.28	8.5
<i>Eucalyptus megacarpa</i>	550.9 ± 29.01	3.2 ± 0.07	133.8
<i>Eucalyptus patens</i>	519.1 ± 48.97	3.2 ± 0.12	30.8



Tree Seedlings – T3

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Species	Height	Health	Stem/ha
<i>Banksia grandis</i>	102.0 ± 13.93	3.4 ± 0.24	3.8
<i>Banksia littoralis</i>	90.0 ± 26.65	3.4 ± 0.24	3.8
<i>Corymbia calophylla</i>	20.0	4.0	0.8
<i>Eucalyptus marginata</i>	15.0 ± 5.00	4.0 ± 0.00	1.5
<i>Eucalyptus megacarpa</i>	110.0 ± 10.00	1.5	1.5
<i>Eucalyptus patens</i>	100.0	2.0	0.8



Understorey Species

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Understorey Species

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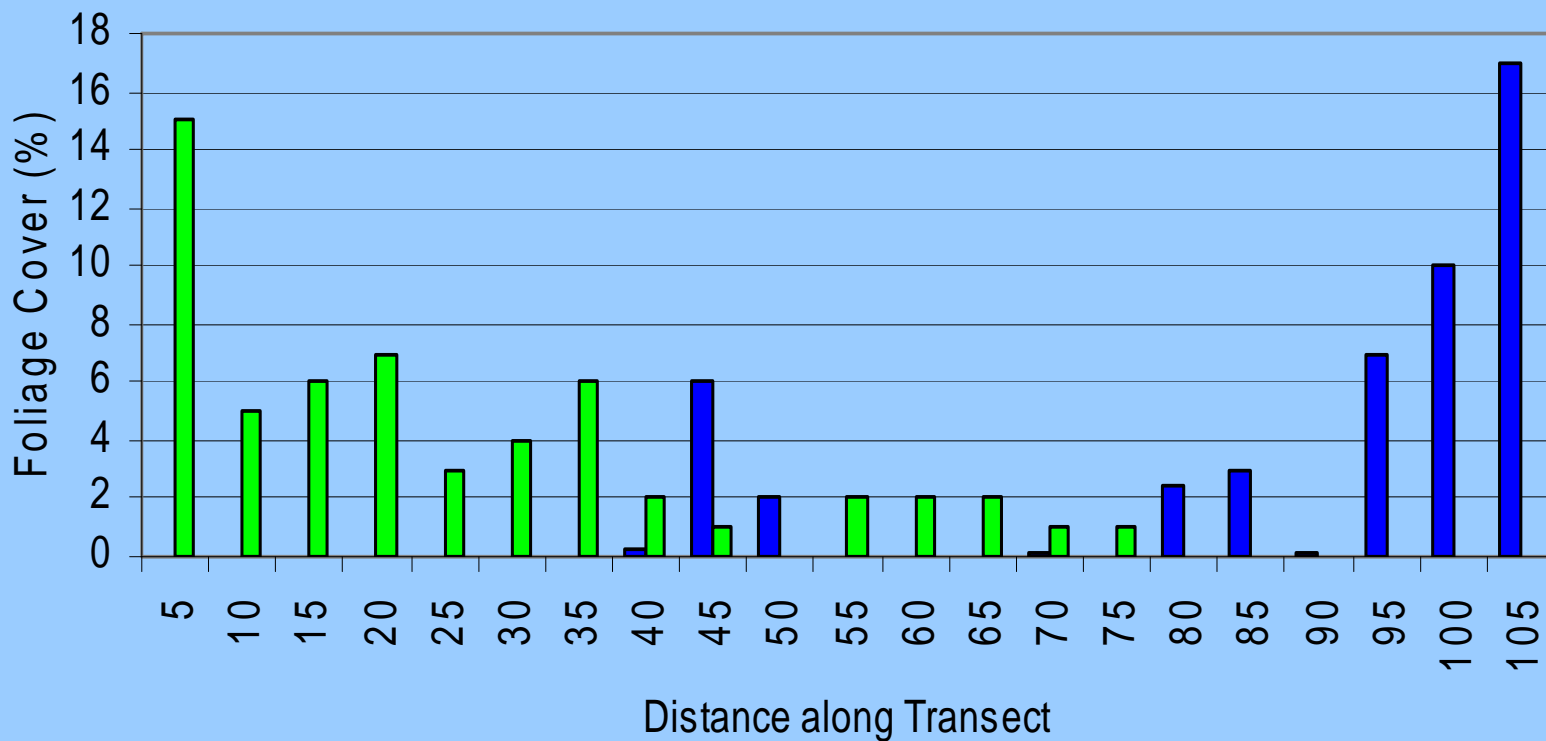
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Comparison of Wet and Dry Site Species





Flora/Vegetation - Hydrology Issues

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- ◆ Key Issues
 - Rare and Priority Flora
 - Key Indicator Species
 - Range of Flora dependent on wet or moist soils
 - Vegetation types dependent on wet and moist soils





Flora/Vegetation - Hydrology Issues

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- ◆ Key Issues
 - Interactions of flora, vegetation and shifts in local hydrology
 - Baseline Datasets
 - Predicted shifts
 - Testing shifts

 - Way Forward