

# Monitoring Plant Water Use in Phytoremediation

## Background:

The Kamarooka Project was established and managed by The Northern United Forestry Group (NUFG). The aim of the project was to lower the watertable using trees to phytoremediate a salt scald and reclaim pasture land in Bendigo VIC Australia.

The result has been the establishment of a practical scientific experiment. The value of which has national implications and has been formally recognised for it's role in furthering the understanding and management of dryland salinity.

## Methods:

Eucalypt species were planted and monitored with dendrometers and HRM Sapflow sensors to compare tree growth and water use against changes in water table height.



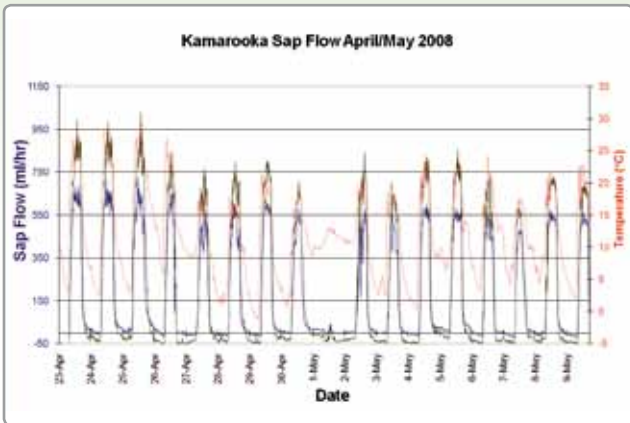
INTERNATIONAL

**Solutions for soil, plant & meteorology**

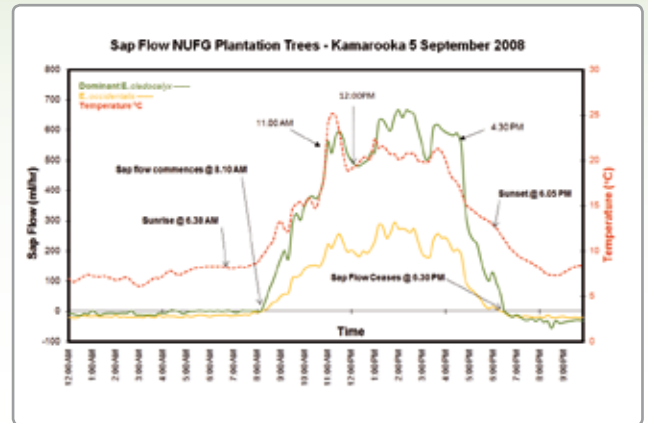
[www.ictinternational.com.au](http://www.ictinternational.com.au)

Ph: +61 2 6772 6770 [sales@ictinternational.com.au](mailto:sales@ictinternational.com.au)

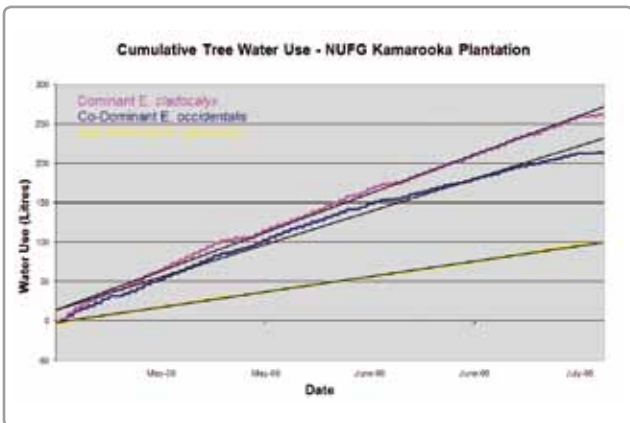
**Results:**



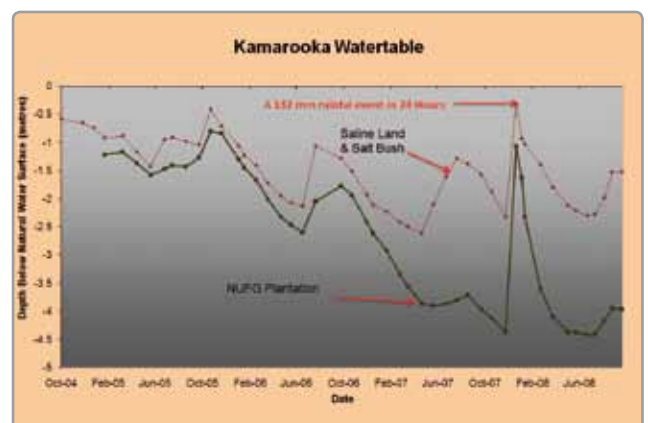
Mean Eucalyptus Water use  
= 5 l/day or 150 l/month



Stems per hectare = 500 stems



Water use per Hectare = 500 x 150  
= 75,000 l/month/ha



Acacia Water use (not measured)  
assumed to be 30% of Eucalyptus (approx)  
25,000 l/month/ha

**Conclusion:**

A measured fall in the watertable of between 20-30 cm per month between April 2008 to September 2008 directly correlated with tree water use as measured with HRM Sapflow sensors.

Mean Water Use  
= 100,000 litres/month/ha



INTERNATIONAL



**Solutions for soil, plant & meteorology**

[www.ictinternational.com.au](http://www.ictinternational.com.au)

Ph: +61 2 6772 6770 sales@ictinternational.com.au