

**ASSESSMENT OF PROPOSED PULP MILL FOOTPRINT FOR THE  
SWIFT PARROT (*LATHAMUS DISCOLOR*)**

**Environmental Consulting Options Tasmania (ECOtas) for  
Gunns Limited.**

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**Mark Wapstra**  
28 Suncrest Avenue  
Lenah Valley, TAS 7008

**ABN 83 464 107 291**  
email: [mark@ecotas.com.au](mailto:mark@ecotas.com.au)  
web: [www.ecotas.com.au](http://www.ecotas.com.au)

business ph.: (03) 62 513 212  
personal ph.: (03) 62 283 220  
mobile ph.: 0407 008 685

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**AUTHORSHIP**

Field Assessment: Mark Wapstra

Report Production: Mark Wapstra

Base Data for Mapping and Aerial Photography: TasMap

Photography and Other Digital Imagery: Mark Wapstra



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## PURPOSE, SCOPE AND LIMITATIONS OF THE SURVEY

### **Purpose**

Gunns Limited (via Suzette Weeding) engaged ECOtas (Mark Wapstra) to undertake an assessment of the proposed pulp mill footprint area for the presence of the swift parrot, *Lathamus discolor*.

### **Scope**

This report relates specifically to the study area, referred to as the "pulp mill footprint", as defined by a GIS shape file provided by Gunns Limited and shown in Figure 1.

Except where otherwise stated, the opinions and interpretations of legislation and policy expressed in this report are made by the author and do not necessarily reflect those of the relevant agency. The client should confirm any such interpretations with the relevant agency before acting on the content of this report.

### **Limitations**

In the case of the present assessment, there were no significant limitations. All areas of the study area were easily accessed on foot via an existing network of tracks, stream systems, coastal rocks and vegetation that presented no serious impediment to movement.

The swift parrot is a migratory species and breeds in Tasmania, arriving in the State during and after August (FPA 2007). The survey was undertaken in mid to late August (21-22<sup>nd</sup>) so if present, individuals were likely to have been noted (distinctive appearance, flight pattern and in-flight calling).

## THE STUDY AREA

The study area, referred to as the "pulp mill footprint", is defined by a GIS shape file provided by Gunns Limited and shown in Figure 1. Detailed descriptions of the vegetation and physical characteristics of the study area are not provided in the present report because they are covered in detail in various parts of the Integrated Impact Statement.

## BACKGROUND ON SWIFT PARROT

The swift parrot (*Lathamus discolor*) is listed as endangered on both the Tasmanian *Threatened Species Protection Act 1995* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. It is also listed as a "priority species" under the *Regional Forest Agreement* (Anon 1997). It is listed on Schedule 1 ("specially protected wildlife") of the Tasmanian *Wildlife Regulations 1999* (under the *Nature Conservation Act 2002*). The species was included in the *Action Plan for Australian Birds 2000* (Garnett & Crowley 2000). There is a Recovery Plan for the species (SPRT 2001).

The Forest Practices Authority's online *Threatened Fauna Manual* database (and associated species profiles and information on forest-dependent species, including a known threatened species range boundary map) includes the swift parrot (FPA 2007). The species is included in *Tasmania's Threatened Fauna Handbook* (Bryant & Jackson 1999).

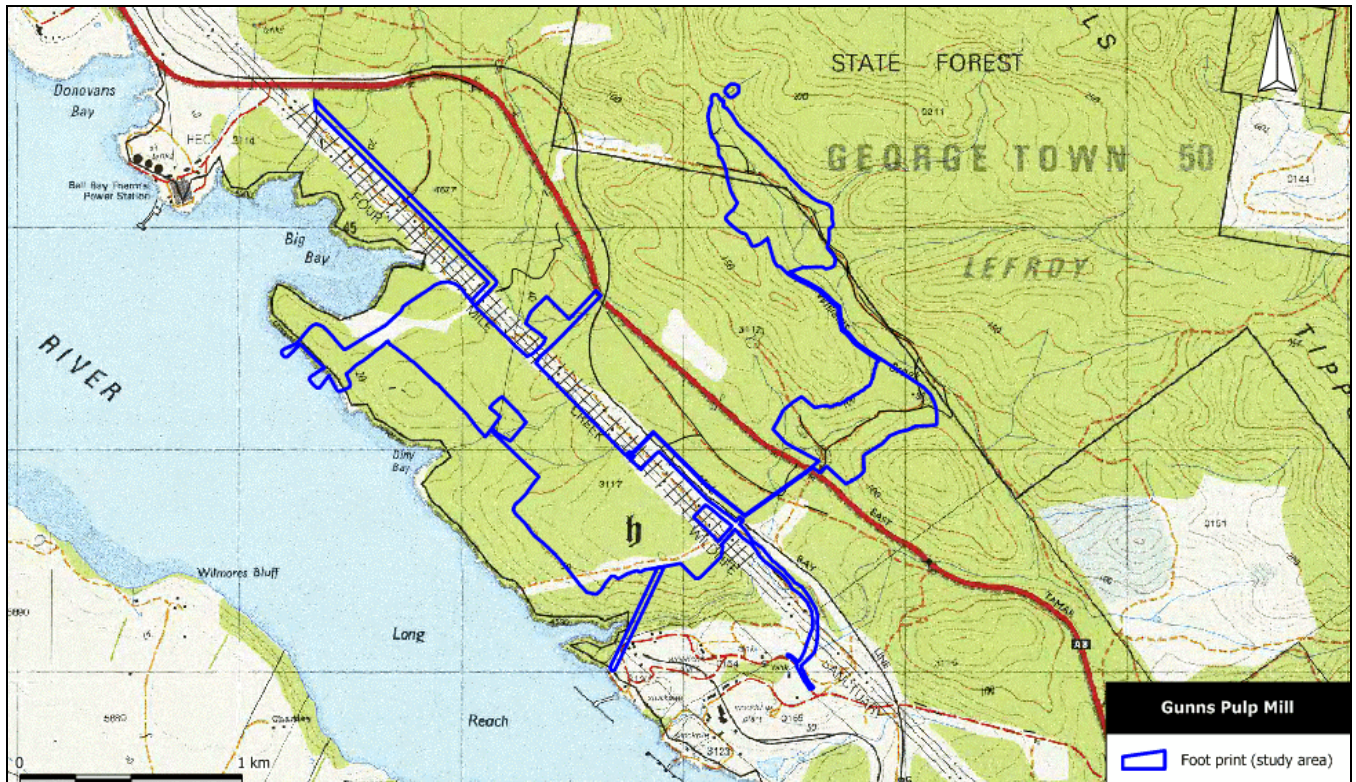
## METHODS

### **Nomenclature**

All grid references in this report are in GDA94, except where otherwise stated.

### **Preliminary investigation**

Available information sources were searched for records of the swift parrot within the proximity of the study area. These sources were also used to develop the description of potential foraging and breeding habitat.



**Figure 1.** Location of the study area.

These sources include:

- DPIW's *Natural Values Atlas Observation Export 2640* (DPIW 2007), which includes records from various sources;
- Forest Practices Authority's online fauna database ("*Threatened Fauna Manual*") current as at 2 September 2007 (FPA 2007);
- Forestry Tasmania's Conserve database *Conservation Enquiry Report for 493583mE 5444345mN dated 20 August 2007* (FT 2007);
- Recent editions of the *Tasmanian Bird Report* (Wakefield & Hayward 2006; Wakefield & Hayward 2005; Wakefield 2002), the annual journal of Birds Tasmania (volume 32 – 2006, volume 31 – 2005, volume 30 - 2002), which provides a systematic list of bird sightings for the preceding year and includes commentary on significant observations of species;
- Bird Atlas of Birds Australia – information obtained by interrogation of online database birddata: <http://www.birddata.com.au/maps.vm>
- Recent assessments of the study area including those by GHD (2006) *Gunns Limited Report for Northern Tasmanian Pulp Mill ISS Terrestrial Fauna Report May 2006*, and Wapstra (2006) *Survey for the Tasmanian Masked Owl (Tyto novaehollandiae castanops) from the Proposed Pulp Mill Site, Bell Bay*.

### **Field assessment**

Field assessment was undertaken over a 2-day period (21-22 August 2007).

The potential or actual presence of swift parrots was assessed by reference to habitat features typically associated with foraging and nest sites for the species. Virtually the entirety of the study

area was assessed on foot. A particular emphasis was placed on confirming the boundaries of the *Eucalyptus ovata* dominated forest (this was undertaken as part of another detailed assessment into the condition of patches of this vegetation type) and detecting and examining potentially hollow-bearing trees. All potential hollows were examined from the ground using binoculars, and any evidence of use by any bird species assessed by checking the base of the trees (using the projected canopy as a guide to the search area) for such features as "whitewash" (bird droppings), feathers, eggs, etc.

The most recent description of potential habitat for the species is provided by the Forest Practices Authority. FPA (2007) describes potential swift parrot habitat as (based on the description provided for 1:25000 mapsheets from which the species is known):

Breeding range (comprising foraging and nesting habitat) is within 10 km of the coastline (nearest coast including shores, bays, inlets or peninsulas). Foraging habitat: all *Eucalyptus ovata* – *E. viminalis* shrubby forest (OV), grassy *E. globulus* forest (GG) and *E. globulus* wet forest floristic communities (subsumed into R) or any forest type with >10% *E. globulus* canopy cover. Nesting habitat: *Eucalyptus* trees present > 70cm dbh, with hollows present.

This description of potential habitat provides an initial point of reference for forest industry planners to ascertain the broad potential for the swift parrot to be present in a particular area but does not necessarily imply that the species will be present, or that all sites demonstrating these features will be considered important for the species.

This habitat description was used as the basis for the field-based assessment of the potential for the study area to support the swift parrot, or its habitat.

## **RESULTS**

### ***Preliminary investigation***

No evidence was found that the swift parrot has been recorded from the study area.

No locality data for the swift parrot was presented in FPA (2007), Bryant & Jackson (1999) and FT (2007). DPIW's *Natural Values Atlas* (DPIW 2007) held records (which match those from the Birds Australia web page citation), and these are presented in Figure 2.

There is a single database record within 5 km of the study area. This is actually positioned within the River Tamar, about 500 m west of the proposed pulp mill site, recorded on 07/05/1978 by Nigel Brothers with a database precision of 1850 m. This record is most likely to represent a sighting of a bird in flight, and the location within the river may even be accurate because this observer spent much time observing birds from boats. If the precision is used to guide where else the record might lie, there is a greater chance that the site is outside the present study area because the study area only forms about a quarter of the arc of potential occupancy based on a precision of 1850 m.

There are two sites for the swift parrot within the 5-10 km buffer zone, represented by three records. One is listed as a sighting recorded by Ralph Cooper on 10/03/1996 at Pipers River with a precision of 100 m. The other site (near Motor Road, West Tamar, Supply River area) is represented by two records, both recorded by RAOU with a precision of 18500 m, one on 31/12/1997 and the other on 30/11/1978. This latter site is also likely to represent sightings of the species but whether the sighting represents a formal foraging record is not known.

Recent commentary on the distribution of the species (Wakefield & Hayward 2006; Wakefield & Hayward 2005; Wakefield 2002) does not indicate any significance of the study area and surrounds to the species. Recent assessments of the study area (GHD 2006; Wapstra 2006) have also not recorded the species, although it is noted that the survey period of both these studies did not overlap significantly with the presence of the swift parrot in Tasmania.

FPA (2007) does not list the swift parrot in its "habitat which may contain threatened species" section of its online database for the Bell Bay 1:25000 mapsheet. No known foraging and/or nesting sites are listed by FPA (2007) for the Bell Bay 1:25000 mapsheet. However, FPA (2007) does provide maps referred to as *Known Threatened Species Range Boundaries*: the map for the swift parrot shows the entirety of the study area on the eastern fringe of the River Tamar to be within the "potential range" of the species but not within the "core range".

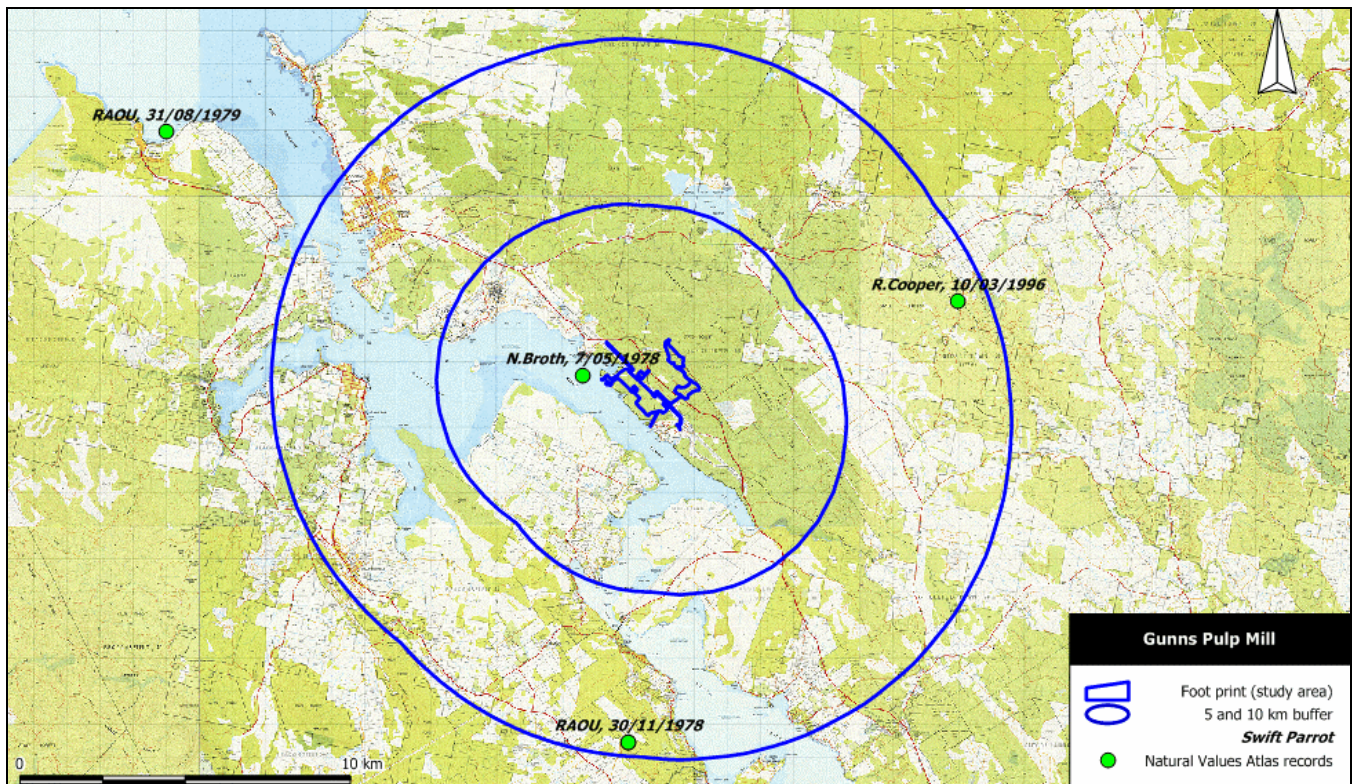


Figure 2. Information from *Natural Values Atlas*.

## Field assessment

### Foraging habitat

FPA (2007) lists potential foraging habitat as including the following vegetation types and features:

- *Eucalyptus ovata* – *E. viminalis* shrubby forest (OV), noting the use of the *Regional Forest Agreement* (Anon 1997) terminology but this effectively refers to the equivalent TASVEG community *Eucalyptus ovata* forest and woodland (TASVEG code: DOV);
- grassy *E. globulus* forest (GG), noting the use of the *Regional Forest Agreement* (Anon 1997) terminology but this effectively refers to the equivalent TASVEG community *Eucalyptus globulus* dry forest and woodland (TASVEG code: DGL);
- *E. globulus* wet forest floristic communities (subsumed into R), noting the use of the *Regional Forest Agreement* (Anon 1997) terminology but this effectively refers to the equivalent TASVEG community *Eucalyptus globulus* wet forest (TASVEG code: WGL);
- any forest type with >10% *E. globulus* canopy cover.

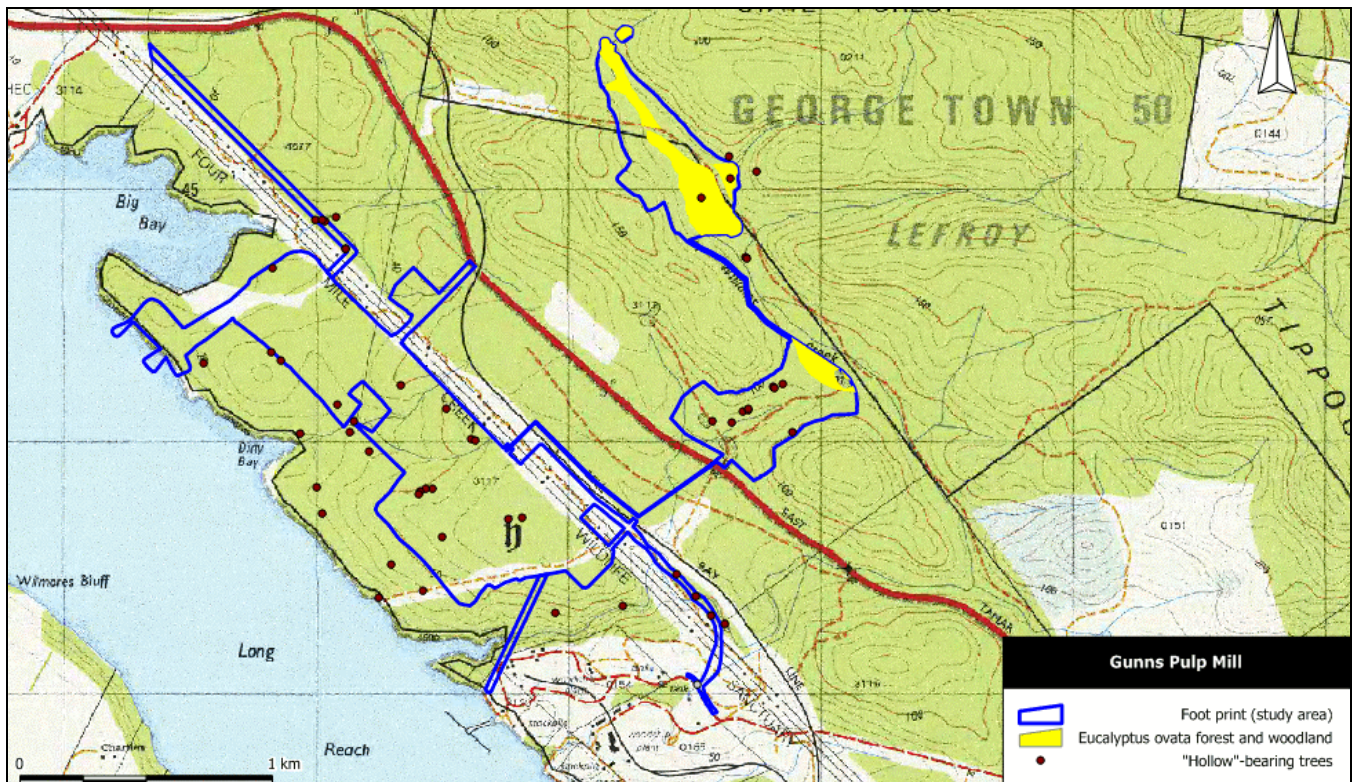
Of these features, only the first is present within the study area. Figure 3 shows the distribution of the DOV vegetation type as mapped by GHD (2006), noting its extent was also confirmed in the field by the present author during the present assessment.

Breeding

FPA (2007) lists potential breeding habitat as simply including the following vegetation feature:

- *Eucalyptus* trees present > 70cm dbh, with hollows present.

This habitat feature is present. The majority of the study area supports eucalypt dominated forest. Most of the vegetation is regrowth forest created as a result of frequent fires and other disturbance events. However, there is an overtopping canopy of older trees present, many of which are either dead or near-dead. Superficially, many of these trees appear to support hollows in their trunks and larger branches. Ground-based assessment using binoculars revealed that most "hollows" are "blind" i.e. not formed beyond the first few centimetres. This observation was supported by examination of fallen canopy and larger branch material at the base of trees, which provided an opportunity to examine similar "hollows". This revealed that indeed many were "blind". The presence of potential hollow-bearing trees is presented in Figure 3. Note that this map includes any tree noted as being over about 70 cm DBH (exact measurements were not taken so some may be smaller than this) with apparent hollows. Because of the statements made above, it is clear that this map represents a substantial overestimate of the distribution of actual hollow-bearing trees that might be suitable for nesting by the swift parrot. Note that the map is comprised of points collected as part of the present assessment and points collected by Wapstra (2006). Potential hollow-bearing trees are patchily distributed, probably more common outside the proposed pulp mill footprint, and generally occur at densities less than 1-2 trees per hectare. All occurrences of hollow-bearing trees are not within oldgrowth forest.



**Figure 3.** Distribution of *Eucalyptus ovata* forest and woodland (DOV) and potential "hollow"-bearing trees.

**DISCUSSION**

It is my opinion that the proposed pulp mill footprint area does not support breeding habitat of the swift parrot because of the lack of oldgrowth forest types typically associated with the species.

Some of the marginal areas surrounding the footprint area support a higher proportion of trees with hollows but this forest cannot be classified as oldgrowth due to the clear dominance of regrowth trees.

It is my opinion that the proposed pulp mill footprint area does support marginal potential foraging habitat of the swift parrot because of the presence of the TASVEG community *Eucalyptus ovata* forest and woodland (TASVEG code DOV). *Eucalyptus ovata* is also present as a minor component of several of the identified vegetation types from within the study area, mainly associated with stream systems. The prime foraging habitat for the species (*Eucalyptus globulus* dry forest and woodland) is entirely absent from the study area, and the key species (*E. globulus*) is also entirely absent.

Approximately 10 ha of DOV has been identified from the eastern side of the East Tamar Highway, along several sections of the Williams Creek system. Much of the DOV is regrowth and disturbed (e.g. tracks dissecting patches, recently burnt) but this does not necessarily preclude foraging activities by the swift parrot. There is no evidence that the patches of DOV have been or are currently being used by swift parrots for foraging activities.

The absence of a large number of sightings of individual swift parrots from within or close to the study area does not imply that the study area is not utilised by the species at some level (e.g. as part of the migratory flight path, occasional foraging and/or perching habitat), although the presence of only four records within about 10 km suggests a low utilisation of the study area.

## REFERENCES

- Anon. (1997). *Tasmanian Regional Forest Agreement between the Commonwealth of Australia and the State of Tasmania*. Commonwealth of Australia and the State of Tasmania, Canberra.
- Bryant, S.L. & Jackson, J. (1999). *Tasmania's Threatened Fauna Handbook: What, Where and How to Protect Tasmania's Threatened Animals*. Threatened Species Unit, Parks and Wildlife Service, Hobart.
- Department of Primary Industries & Water (DPIW) (2007). *Natural Values Atlas Observation Export 2640 2 September 2007*.
- Forest Practices Authority (FPA) (2007). *Online version of the Threatened Fauna Manual*. <http://www.fpa.tas.gov.au/index.php?id=82>.
- Forestry Tasmania (FT) (2007). Conserve database *Conservation Enquiry Report for 493583mE 5444345mN dated 20 August 2007*.
- Garnett, S.T. & Crowley, G.M. (2000). *The Action Plan for Australian Birds 2000*. Environment Australia, Canberra.
- GHD (2006). *Gunns Limited Report for Northern Tasmanian Pulp Mill ISS Terrestrial Fauna Report May 2006*.
- Swift Parrot Recovery Team (SPRT) (2001). *Swift Parrot Recovery Plan 2001-2005*. Tasmanian Department of Primary Industries, Water & Environment, Hobart.
- Wakefield, W.C. (2002). Tasmanian bird observations January 2002 to 30 June 2003 systematic list. *Tasmanian Bird Report* 30: 42-72
- Wakefield, W.C. & Hayward, E.R. (2005). Tasmanian bird observations 1 July 2003 to 30 June 2004 systematic list. *Tasmanian Bird Report* 31: 23-41.
- Wakefield, W.C. & Hayward, E.R. (2006). Tasmanian bird observations 1 July 2004 to 30 June 2005 systematic list. *Tasmanian Bird Report* 32: 21-48.
- Wapstra, M. (2006). *Survey for the Tasmanian Masked Owl (Tyto novaehollandiae castanops) from the Proposed Pulp Mill Site, Bell Bay: Mark Wapstra (ECOtas) for Gunns Limited 21 June 2006*.