

**ASSESSMENT OF PROPOSED PULP MILL FOOTPRINT FOR NESTS  
OF THE WEDGE-TAILED EAGLE AND WHITE-BELLIED SEA-EAGLE**

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

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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 nests of the wedge-tailed eagle and white-bellied sea-eagle.

### 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.

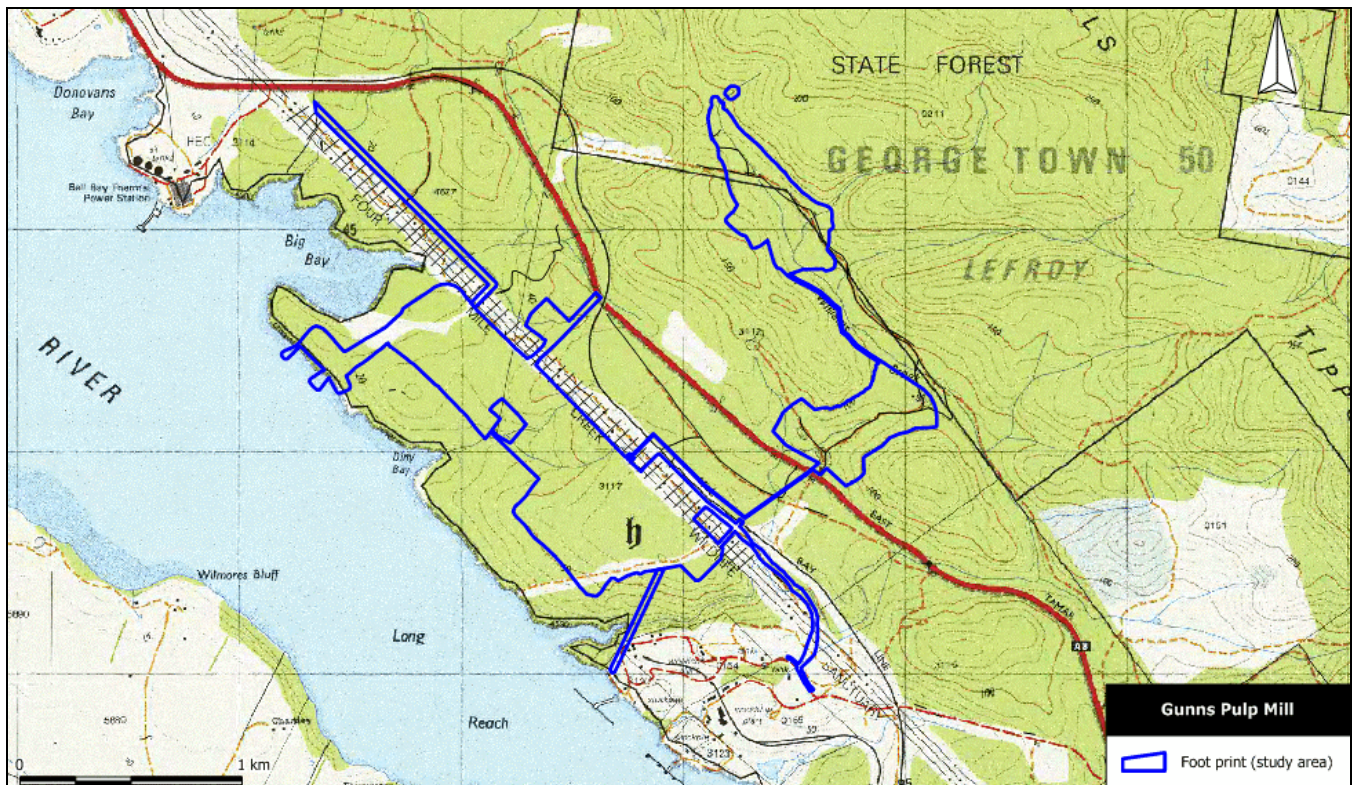
Except where otherwise stated, the opinions and interpretations of legislation and policy expressed in this report are made by the author and do not necessarily reflect those of the relevant agency. The client should confirm any such interpretations with the relevant agency before acting on the content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



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

## DISCUSSION OF PREVIOUS ASSESSMENTS OF THE STUDY AREA FOR THE EAGLE NESTS

The study area has been assessed for the presence of nests of wedge-tailed eagles and white-bellied sea-eagles, as reported in Weeding (2005) *Eagle Nest Search Proposed Pulp Mill and Associated Infrastructure Survey Report*. I have reviewed the information in that report and conclude that it was a rigorous assessment protocol that was followed. Weeding (2005) confirmed (and corrected) the location of a known nest (nest #130) and reported on the discovery of a new nest (now known as nest #1401) further up the same gully system occupied by the other nest.

There have also been several additional assessments of the present study area, the most significant being the flora and fauna assessments by GHD (2006a, 2006b) and the masked owl assessment by Wapstra (2006).

## DESCRIPTION OF POTENTIAL HABITAT FOR BOTH SPECIES

The description of potential habitat for the wedge-tailed eagle and white-bellied sea-eagle is important to define to ensure that any assessment adequately surveys all potential habitat. In the case of the present report, the formal definition of habitat is somewhat of a moot point because the author was aware that the entirety of the study area would be searched, irrespective of the quality of potential habitat present (or indeed if potential habitat was entirely absent).

However, for the purposes of the present report, the definitions of potential habitat provided by the Forest Practices Authority's online threatened fauna database (FPA 2007) were used. These are as follows:

White-bellied sea-eagle: Forest with significant old-growth eucalypt component within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), rivers, lakes or complex of farm dams (note that the database also described the River Tamar and estuaries as a "forage area").

Wedge-tailed eagle: Large tracts (more than 10 ha) of eucalypt or mixed forest

## 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 white-bellied sea-eagle and wedge-tailed eagle within and close to the proximity of the study area. These sources include:

- DPIW's *Natural Values Atlas* represented by a data file supplied by DPIW to the consultant in April 2007, which includes information from the Raptor Nest Database (DPIW 2007);
- Forest Practices Authority's online fauna database ("*Threatened Fauna Manual*") current as at 30 August 2007 (FPA 2007);
- Forestry Tasmania's Conserve database *Conservation Enquiry Report for 493583mE 5444345mN dated 20 August 2007* (FT 2007);
- A report on the results of a formal search for eagle nests conducted by Gunns Limited as part of the assessment process for the pulp mill development (Weeding 2005) *Eagle Nest Search Proposed Pulp Mill and Associated Infrastructure Survey Report*.

The potential for the study area to support nests of the white-bellied sea-eagle and wedge-tailed eagle was assessed prior to the field assessment. Reference to GIS-based topographic maps, previous assessments of habitat (Weeding 2005; Wapstra 2006a, 2006b), and other reports on the flora and fauna values of the pulp mill site (GHD 2006a, 2006b), provided the basis for determining the likelihood of nests being present based on forest structure and topographic features. It should

be noted that the author has personally walked the vast majority of the study area in search of nests of the masked owl (Wapstra 2006a) and was very familiar with the physical and biological characteristics of the study area prior to the present assessment.

No complex pre-search prioritisation of search areas was undertaken as part of the present assessment because it was known that the entirety of the study area would be walked and examined in detail for other purposes (including an assessment of weeds, *Phytophthora cinnamomi*, ground-dwelling mammals and hollow-dependent bird species).

### **Field assessment**

Field assessment was undertaken over a 2-day period (21-22 August 2007). The entirety of the study area was walked, and virtually any large tree examined using binoculars from a suitable vantage point (actually to assess the presence of tree hollows but the method would obviously detect large nests of birds). Large trees on slopes and in gullies immediately outside the study area were also assessed using binoculars.

## **RESULTS**

### **Preliminary investigation – database review**

Four sources of information were interrogated for information on observations of wedge-tailed eagles and white-bellied sea-eagles in the vicinity of the study area.

#### White-bellied sea-eagle

It is clear from the available information that there are no known nests within 1 km of the boundary of the study area. The nearest nest is #97 west of Bell Bay from 486862mE 5445933mN, about 5 km northwest of the study area (Table 1).

The nearest sighting observation (as listed in the *Natural Values Atlas*) is from close to the existing chip mill facility, reported in July 1997 by an employee of the company: this observation represents a bird in flight over the River Tamar.

#### Wedge-tailed eagle

There is some minor conflicting and confusing information regarding the exact location of the nearest nests to the study area, presumably because of recent changes to how various databases are managed by government agencies. I reviewed this information to ensure that the locations of these nests can be certain, such that I was confident that they were not located within or immediately adjacent to the present study area.

Table 1 lists the available information on currently known nests on the Bell Bay 1:25000 mapsheet. However, some detailed discussion is warranted because the four information sources present confusing information that needs to be clarified to ensure that all parties are referring to the same nest in discussions.

It is clear that there are only two nests within close proximity to the study area: #130 and #1401. The Raptor Nest Database maintained by DPIW, and as included in the *Natural Values Atlas* (DPIW 2007), should be used as the official source for the nest location information.

As far as I can ascertain, the following details are therefore applicable to these nests:

#130 is called "Tippogoree Hills" and has a grid reference of 494370mE 5446653mN with a precision of 20 m. Based on information presented in Weeding (2005), which indicates that the location of the existing nest (#130) was confirmed by a ground-based GPS reading, the precision of this grid reference can be better regarded as accurate to 5 m.

#1401 is called "Tippogoree Hills NE" and has a grid reference of 495214mE 54471778mN with a precision of 10 m. Based on information presented in Weeding

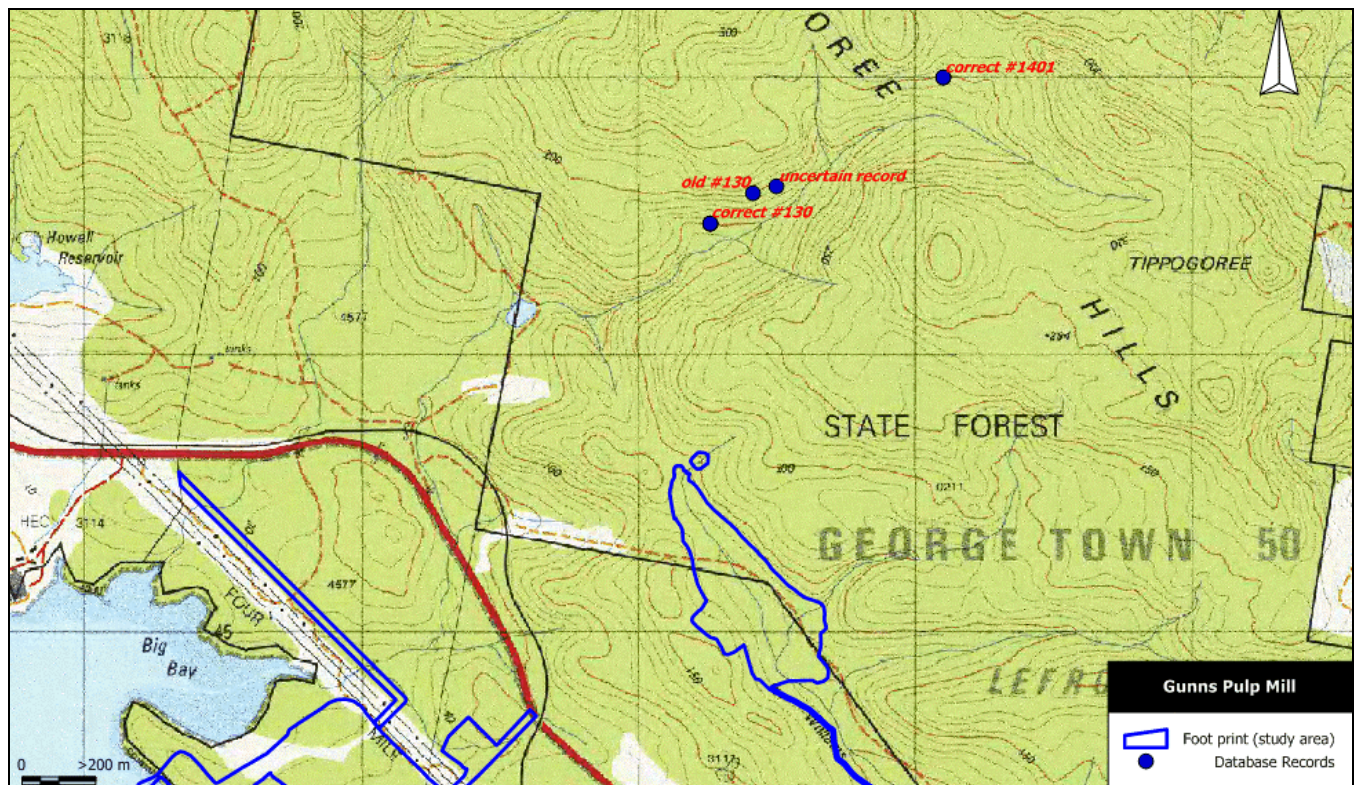
(2005), which indicates that the location of this new nest was detected and recorded by helicopter, the precision of this grid reference can be better regarded as accurate to 20 m.

Figure 2 shows the location of these two nests (and the location of other database nest records), which confirms that the nests are not within the present study area.

**Table 1.** Database information on known nest sites for wedge-tailed eagle and white-bellied sea-eagle on the Bell Bay 1:25000 mapsheet.

Easting	Northing	Name	Number	Source	Comments
<b>wedge-tailed eagle</b>					
488206 488207	5440799 5440800	Ralstons Hill	#132	FPA (2007) DPIW (2007)	More than 1 km from boundary of study area; not considered further in this report. For the record, DPIW's and FPA's database have a discrepancy of 1 m in the easting and northing.
492015 492016	5450180 5450181	Mt George 2.7 km E	#781	FPA (2007) DPIW (2007)	More than 1 km from boundary of study area; not considered further in this report. For the record, DPIW's and FPA's database have a discrepancy of 1 m in the easting and northing.
494526	5446761	Tippogoree Hills	#130	FPA (2007)	This is the exact information presented in FPA's current online database. Note: FPA (2007) does not list the new nest reported by Weeding (2005), now known as #1401 (DPIW 2007), presumably because of changes to how the online <i>Threatened Fauna Manual</i> is managed.
494370	5446653	Tippogoree Hills	#130	DPIW (2007)	The grid reference, nest name and number are cited from the <i>Natural Values Atlas</i> (DPIW 2007), as per the Raptor Nest Database. This grid reference is 156 m south and 108 m west of FPA's citation for #130 (as the eagle flies, equivalent to 190 m in a southwesterly direction). This <i>Natural Values Atlas</i> record is equivalent to the grid reference cited in Weeding (2005) for the new position of #130.
495214	5447178	Tippogoree Hills NE	#1401	DPIW (2007)	The grid reference, nest name and number are cited from the <i>Natural Values Atlas</i> (DPIW 2007), as per the Raptor Nest Database. The grid reference details match exactly those cited by Weeding (2005) for the reported location of the nest discovered as part of her report (but not allocated a nest name and number at the time).
494612	5446783	?	?	DPIW (2007)	Unknown what this database record indicates because it is not tagged with the Raptor Nest Database and does not match any of the other references in other information sources. It is certain, however, that it does not represent a third nest in the area. Given that the easting ends in 12 and the northing in 83, this appears to be the result of a AGD66 to GDA94 conversion to an old AGD66 record.
495214	5447178	No name allocated at the time of recording	No number allocated at the time of recording	Weeding (2005)	Nest located as a consequence of formal searches by Gunns Limited for pulp mill assessment. This nest information is not included in FPA (2007) but is included in DPIW (2007) and FT (2007) as #1401.

Easting	Northing	Name	Number	Source	Comments
494370	5446653	Tippogoree Hills NE	#1401	FT (2007)	Forestry Tasmania's <i>Conserve</i> database uses the FPA's database as its primary source for threatened fauna data but in this case, the FPA database is not up-to-date with respect to nest #1401. Oddly, FT (2007) does not list nest #130, although the map accompanying the <i>Conserve</i> report shows two records for the wedge-tailed eagle that match the actual locations of nests #130 and #1401.
<b>white-bellied sea-eagle</b>					
486862 486863	5445933 5445934	Bell Bay 1 km W	#97	FPA (2007) DPIW (2007)	More than 1 km from boundary of study area; not considered further in this report. For the record, DPIW's and FPA's database have a discrepancy of 1 m in the easting and northing. DPIW (2007) shows 2 records in close proximity, only one is listed as being from the Raptor Nest Database so presumably the record is a sighting.



**Figure 2.** Location of nearest wedge-tailed eagle nests to study area (refer to Table 1 for discussion of the different records).

**Preliminary investigation – potential habitat**

Based on the broad descriptions of potential nesting habitat, the study area supports some potential habitat for the wedge-tailed eagle because there are eucalypt forest areas greater than 10 ha in extent) but limited potential habitat for the white-bellied sea-eagle (because of the lack of oldgrowth elements in the forest structure). For the purpose of this report, however, a highly conservative approach to the definition of potential habitat was taken, and all areas supporting eucalypt forest within the study area were classified as potential habitat.

### **Field assessment**

No nests of white-bellied sea-eagles or wedge-tailed eagles were located as a consequence of the ground-based search over a 2-day period. Physically, the study area itself presents little potential nesting habitat because of gentle slopes and broad flats with only a few short sections of sheltered slopes and gullies. Any sheltered areas tend to support regrowth forest (lacking a significant number of mature trees with suitable structure for nesting i.e. a large fork) or non-eucalypt forest (e.g. along Williams Creek). More mature forest is present but it mainly occurs on broad flats associated with stream systems. At any rate, any large tree was thoroughly examined and no large nests were detected.

### **DISCUSSION**

It is my opinion that the proposed pulp mill footprint area does not support nests of the white-bellied sea-eagle or the wedge-tailed eagle. There have now been a number of detailed assessments undertaken on the site, including the present one and it is unlikely that a nest has been overlooked.

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