



**Bell Bay Pulp Mill**  
**EPBC Approval**

**Annual Report 2010**

For the reporting period up to 30 June 2010

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Prepared for the Commonwealth Minister for Sustainability, Environment, Water,  
Population and Communities in accordance with approval EPBC 2007/3385

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### Revision Status

Revision	Date	Revision Description	Prepared	Reviewed	Approved
A	5 <sup>th</sup> October 2010	Draft for independent audit	CRD	LH/SW/LB	
B	6 <sup>th</sup> December 2010	Final Draft Gunns response to audit comments	CRD	LH/SW/LB	CF

## 1. Introduction

This is the second Annual Report (2010) produced by Gunns Limited under its *Environment Protection and Biodiversity Conservation Act 1999* approval EPBC 2007/3385 for the Bell Bay pulp mill, issued on 4 October 2007.

Condition 11 of the approval reads:

*Unless otherwise specified, Gunns Limited must submit an annual report of performance against the requirements of the EIMP as soon as practicable after 30 June in each year. The report must identify any requirements of the EIMP that have not been satisfied and appropriate strategies for meeting these requirements. The annual report must be independently audited by an appropriately qualified person agreed to by the Department. The annual report must be published by Gunns Limited within ten business days of the completion of the independent audit referred to herein.*

The first annual report covered the period from 1<sup>st</sup> July 2008 until 30 June 2009. However, as requested by (then) DEWHA, relevant activities commenced prior to that time were included for completeness. Activities covered in the 2008/09 report therefore involved the preparation and Ministerial approval of modules of the Commonwealth Environmental Impact Management Plan (EIMP), the construction of a site perimeter fence, geotechnical investigations and the continuation of physical and ecological surveys for the project.

This current report documents the commencement of project construction activities including vegetation clearing on the pulp mill site, the workers accommodation site and along sections of the pipeline corridor. Construction of the access road to the pulp mill site was also completed in the reporting period including track upgrades providing all weather access to the proposed wharf site. In addition, ecological surveys were extended to cover areas not previously surveyed, conservation covenants for reserve and offset areas were finalised and effluent and hydrodynamic studies were progressed that will inform the preparation of the remaining EIMP Modules L, M & N due for final submission to the Minister in late 2010.

In accordance with condition 11, this report has been independently audited by an appropriately qualified person, Mr Philip Millin of Millin EMS, as agreed to by DEWHA on 23 December 2009.

Reporting obligations for this Annual Report have been derived from the EPBC approval itself and from the EIMP modules that have been prepared and approved by the Minister up until June 30 2010.

## 2. Report

The 2009/10 reporting period saw a shift in project focus from the preparation of EIMP modules to the progression of effluent studies and hydrodynamic modelling and the commencement of on ground works. These on ground works included vegetation clearing at the pulp mill and workers accommodation sites and along sections of the pipeline corridor and the construction of the pulp mill access road.

Vegetation clearing at the pulp mill site and the pipeline corridor commenced in August 2009. At the pulp mill site, the unmerchantable understorey was chipped and retained as soil mulch whilst the overstorey trees were harvested for the production of woodchips and firewood. Overstorey vegetation clearing was completed along a 2km section of the pipeline corridor at Likemans Hill near Mount Direction and at the Balance Tank Site and the pipeline corridor at Trevallyn. At the workers accommodation site a slasher was used to reduce thick weed infestations over the 14 ha area to a manageable height before a follow up treatment of broadleaf herbicide was applied to control weed regrowth. Clearing operations were

inspected by DEWHA officers on a number of occasions as well as the Independent Site Supervisor.

Prior to construction of the pulp mill access road it was necessary to relocate a number of utilities at the planned road entrance. These works commenced in December 2009 and included the relocation of the Gunns wood chip mill water supply pipeline, a Telstra fibre optic cable and the realignment of adjacent Aurora power supply infrastructure. Construction of the main 1.2 km pulp mill access road commenced in January 2010 and continued for a period of 4 months to the end of May. The road was designed and constructed to Tasmanian Government rural road standards and specifications and provides high quality, gravelled access from the existing chip mill road to the pulp mill site. Construction of the main pulp mill access road was followed by up grading and realignment of the track to the pulp mill wharf site. These track upgrade works were completed in June 2010.

In addition to the on ground works, significant project resources have been allocated towards progressing pulp mill effluent studies and further detailed hydrodynamic modelling. Reports have been submitted to DEWHA on the results of effluent toxicity testing, physico-chemical characterisation and the fate of fine particulate organic matter using effluent from an Elemental Chlorine Free eucalyptus furnished pulp mill of similar scale and technology in South America. Work on the detailed hydrodynamic model designed to thoroughly examine the fate and effect of a pulp mill effluent when released in Bass Strait commenced in 2009 and a number of milestone reports have been submitted to DEWHA describing progress and preliminary modelling results. The results and conclusions of these related studies when complete are then to be incorporated into EIMP modules L, M & N for re submission to the Minister during the next reporting period.

Design work for the mill continued during the reporting period although this did not result in any changes to the pulp mill footprint as defined by Schedule 1 of the approval. Some changes are being proposed, however, to the water supply and waste water pipeline alignments due to landowner and engineering requirements. The revised pipeline alignments have been surveyed for Commonwealth listed flora and fauna resulting in the discovery of an inactive white bellied sea eagle nest near the water supply pipeline at Hillwood. This nest has been reported to DEWHA in accordance with Condition 28 of the approval and an additional EIMP commitment requiring pre construction activity checks of the nest will be included in a review of Module F-G-H-K later in the 2010/11 reporting year.

Annual inspections of wedge-tailed eagle nest #130 were completed and although not used for breeding in the 2009/10 breeding season the nest was assessed as not abandoned by the consulting eagle specialist. The vegetation clearing elements of the road kill mitigation measures on the pulp mill access roads continue to be implemented including daily inspections for road killed animals, recording location and species data and removing carcasses from the road to minimise the risk of secondary road kill from carcass scavenging. Road kill monitoring data is retained on site and is available for inspection by the Department and the Independent Site Supervisor on request and the results of the road kill monitoring program were submitted to the Department in accordance with Commitment 2 in Section 3b of EIMP Module C. A summary of those results is attached as Appendix B of this report.

The above general description of activities undertaken during the reporting period are supplemented below by descriptions of specific matters required to be reported upon by the approval conditions and by reporting obligations arising out of the EIMP.

The following Tables include all reporting obligations arising directly from the Approval (Table A) as well as Environmental Objectives and associated Performance Measures derived from EIMP modules approved by the Minister up until June 30<sup>th</sup> 2010 (Table B).

Table A Reporting obligations directly under EPBC 2007/3385					
Item	Subject	Reference	Activity report	Non Compliance	Strategies for addressing unsatisfied Approval requirements
A1	Any reasonable grounds to believe that the maximum limits for effluent discharge were likely to be exceeded	Condition 4	No activity. Relates to commissioning and operational phases of the project.	Nil	Not applicable to preconstruction or construction phases
A2	Strategies implemented in response to effluent discharge limits likely to be exceeded	Condition 4	No activity. Relates to commissioning and operational phases of the project.	Nil	Not applicable to preconstruction or construction phases
A3	EIMP submission and approval progress	Condition 7	<p>Modules A, B, C, C1, D, E, F-G-H-K, I-J and O have been approved by the Minister as reported in the 2008/09 Annual Report. These modules relate to the pre construction and construction phases of the project</p> <p>EIMP Modules A and B were approved by the Minister on 1 February 2008.</p> <p>EIMP Module C was approved by the Minister on 2 April 2008.</p> <p>EIMP Module E was approved by the Minister on 23 May 2008.</p> <p>EIMP Modules C1, D, F-G-H-K, I-J and O were approved by the Minister on 5 January 2009. On that date Minister Garrett also approved a variation to the maps of Schedule 1 of EPBC 2007/3385.</p> <p>In his 5 January 2009 decision, Minister Garrett determined that modules relating to the mill's operations could not be approved until the results of further hydrodynamic modelling were available. Minister Garrett set a date of 3 March 2011 as the date by which the updated modules L, M and N must be approved. The mill is not permitted to operate until those operational modules have been approved.</p> <p>The dates of the current versions of the operational modules, as submitted to Minister Peter Garrett are unchanged from that reported in the 2008/09 Annual Report. These are:</p> <p>Module L (Pre commissioning management): 16 December 2008</p> <p>Module M (Monitoring): 16 December 2008</p> <p>Module N (Response strategies): 16 December 2008.</p> <p>Considerable progress has been made during the reporting period on effluent studies and hydrodynamic modelling to inform revisions of modules L, M &amp; N. The target date for resubmitting these modules to the Minister is November 2010.</p>	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A4	Implementation progress of approval provisions prior to relevant stage of construction	Condition 8	<p>Construction activities undertaken during the reporting period were as follows:</p> <p>Clearing of vegetation on the pulp mill site</p> <p>Construction of the main access road to the pulp mill site and upgrading and realignment of the track to the wharf</p> <p>Clearing inside the perimeter of the pulp mill footprint as a firebreak and in</p>	Nil	There were no unsatisfied Approval Requirements relating to this Condition

Table A Reporting obligations directly under EPBC 2007/3385					
Item	Subject	Reference	Activity report	Non Compliance	Strategies for addressing unsatisfied Approval requirements
			<p>preparation for construction of the site security fence</p> <p>Vegetation clearing at the workers accommodation site and follow up woody weed control</p> <p>Pipeline vegetation clearing at Likemans Hill and at Trevallyn</p> <p>Clearing of the balance tank site at Trevallyn</p> <p>All provisions relevant to the approval were implemented prior to commencement of construction activities. See Table B for a more detailed account of the implementation of operational requirements under the EIMP.</p>		
A5	Responses to any requests by the Independent Supervisor for access to information and locations	Condition 10	Prior to the commencement of pulp mill site vegetation clearing, the Independent Site Supervisor requested an electronic version of the mill site footprint for GPS field validation. This information was provided on 30/07/09.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A6	Annual performance report, audited by independent auditor	Condition 11	This is the second Annual Report produced for the project. The report has been independently audited by Millin EMS.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A7	Compliance with any Ministerial requirements in relation to rectification of any performance failures identified in the Annual Report	Condition 12	No requirements in relation to rectification of performance failures identified in the Annual Report were received from the Minister.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A8	Notification of any new wedge-tailed eagle nests found	Condition 14	Additional flora and fauna surveys were conducted in 2008 and 2009 for areas of the pipeline corridor not previously surveyed. No new wedge-tailed eagle nests were found. Refer ECOTas reports dated 08/05/09 and 03/03/10.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A9	Inspection results of wedge-tailed eagle nest #130 during September and November	Condition 15	Nest #130 was inspected for activity on 9 <sup>th</sup> September and 13 <sup>th</sup> November 2009. Although the nest did not appear to be used for breeding during these inspections, the consultant's advice was that it is uncommon for eagles to breed every year. An adult male eagle was observed in the vicinity of the nest during the September inspection and there was evidence of re lining of the nest in November. The 2009 inspection report was submitted to DEWHA on 2 <sup>nd</sup> December 2009.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A10	If nest #130 abandoned, submission of offset response strategy	Condition 15	Condition 15c requires a minimum 20ha offset be established if nest #130 is abandoned during construction or in the first breeding season after the commencement of construction. Although the nest was not used for breeding this year, the specialist eagle consultant advised the nest was not abandoned. EIMP Module O identifies a 40 hectare offset reserve should this nest be deemed abandoned during construction.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A11	Progress of implementation of offset rehabilitation elements of EIMP within two years of approval date	Condition 16	Rehabilitation strategies for a 226 ha offset reserve system are identified in Module O of the EIMP. A covenanting agreement has been signed by both Gunns and the State Government and this agreement is currently with the Lands Title Office for registration. Rehabilitation elements of the agreement are linked to project Notice to Proceed as per EIMP Module O. DEWHA wrote to Gunns on 7 <sup>th</sup> October 2009 confirming the requirements of Condition 16c and Module O of the EIMP pertaining to covenanting of reserve and offset areas had been satisfied.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A12	Establish a network of reserves totalling at least 150 ha within the pulp mill site for	Condition 17	155 ha of reserves were identified and established as part of EIMP Module B. A conservation covenant agreement has been signed by both Gunns and the State	Nil	There were no unsatisfied Approval Requirements relating to this Condition

Table A Reporting obligations directly under EPBC 2007/3385					
Item	Subject	Reference	Activity report	Non Compliance	Strategies for addressing unsatisfied Approval requirements
	habitat of Commonwealth listed threatened mammal species		Government and this agreement is currently with the Lands Title Office awaiting registration. DEWHA wrote to Gunns on 7 <sup>th</sup> October 2009 confirming the requirements of Module O of the EIMP pertaining to covenanting of reserve areas had been satisfied.		
A13	Confirmation of arrangements to establish a reserve of <i>E. ovata</i> and/or <i>E. globulus</i> for swift parrot foraging habitat	Condition 18	The areas for this reserve and details of future management strategies are described in Module O of the EIMP. An area of approximately 35 ha of <i>E. ovata</i> forest has been established, with an additional 59 ha of buffer zones. Covenant agreements have been entered into for these areas and some of these agreements have already been registered on the property title. The remaining agreements are with the Land Titles Office awaiting registration. DEWHA wrote to Gunns on 7 <sup>th</sup> October 2009 confirming the requirements of Module O of the EIMP pertaining to covenanting of reserves and offset areas had been satisfied.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A14	Performance against pipeline construction rehabilitation measures and timeframes	Condition 22	2.6km of pipeline corridor vegetation clearing was completed at Likemans Hill and Trevallyn during the reporting period. However, clearing only removed the large woody overstorey leaving the grassy/shrubby understorey intact. Rehabilitation of the understorey component was therefore not required.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A15	Undertake surveys for central north burrowing crayfish ( <i>Engaeus granulatus</i> ) and Mt Arthur burrowing crayfish ( <i>Engaeus orramakunna</i> )	Condition 23	Surveys targeting burrowing crayfish were undertaken and previously reported as part of EIMP Module B. The surveys indicate these species are not present in or in the vicinity of the project area. Supplementary flora and fauna surveys covering areas of the project not previously assessed in 2008 and 2009 again found no evidence of these species in the project area.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A16	Effectiveness of <i>Xanthorrhoea. aff bracteata</i> protection measures	Condition 24	There were no construction activities in the vicinity of the effluent pipeline during the reporting period to 30 June 2010.  Note that pre construction surveys have confirmed <i>Xanthorrhoea bracteata</i> is restricted to small patches near but outside of the effluent pipeline and shore crossing construction corridors (shown in Map 5-2 in Appendix C of Module F-G-H-K).	Nil	Not applicable
A17	Undertake surveys for <i>Prasophyllum secutum</i> , <i>Caladenia caudata</i> , <i>Epacris exserta</i> and <i>Glycine latrobeana</i>	Condition 25	Spring flora surveys were undertaken and reported as part of EIMP Module B and EIMP Module F-G-H-K. Additional surveys undertaken during 2008 and 2009 covering possible realignments of the pipeline corridor did not detect any Commonwealth listed species identified in Condition 25.	Nil	Not applicable
A18	Results of road kill monitoring	Condition 26	The results of road kill monitoring for the 2009/10 reporting period are summarised in Appendix B of this report	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A19	Notification of any new sea eagle nests found	Condition 28	In December 2009 a sea eagle nest was discovered on private property near the planned water supply pipeline alignment at Hillwood. The nest was inactive during the 2009/10 breeding season. The nest location was reported to DEWHA on 22 <sup>nd</sup> December 2009, with a site visit subsequently undertaken in February 2010 by DEWHA and Tasmanian authorities.	Nil	There were no unsatisfied EIMP Requirements relating to Condition 28
A20	Desk top study of the potential impacts of underwater noise on the Australian Grayling ( <i>Prototroctes maraena</i> )	Condition 29	The study was completed and is reported as Appendix C of EIMP Module D. Wharf construction has not commenced so there has been no monitoring of pile driving noise to validate the results of the desktop study	Nil	Not applicable
A21	Results of monitoring underwater sound fields of pile driving at the wharf and ocean outfall	Condition 29/30	No marine or estuary construction activities commenced prior to 30 June 2010.	Nil	Not applicable

Table A Reporting obligations directly under EPBC 2007/3385					
Item	Subject	Reference	Activity report	Non Compliance	Strategies for addressing unsatisfied Approval requirements
A22	Results of visual monitoring of marine mammals	Condition 30	No marine or estuary construction activities commenced prior to 30 June 2010.	Nil	Not applicable
A23	Desk top study of the potential impacts of underwater noise on listed threatened and marine species	Condition 30	The study was completed and is reported as Appendix D of EIMP Module F-G-H-K. Construction has not commenced at the wharf or outfall so there has been no monitoring of pile driving noise to validate the results of the desktop study	Nil	Not applicable
A24	Results of effluent monitoring against trigger levels and limits	Condition 32	No activity - not applicable to preconstruction or construction phases.	Nil	Not applicable
A25	Trigger levels for effluent discharge to be included in the EIMP together with response strategies if trigger levels are exceeded or maximum limits reached	Condition 33	Trigger levels and associated response strategies are included in EIMP Module L submitted 16 <sup>th</sup> December 2008. An updated Module L is scheduled to be re submitted for the Minister's consideration in November 2010.	Nil	Not applicable
A26	Chemical analysis and whole effluent toxicity testing to be undertaken on effluent from overseas mills with similar technology. Gunns to report on the temporal variability in contaminant and toxicity in effluent from these mills	Condition 34	Effluent was collected from a similar overseas mill for testing in November 2009. The results of whole effluent toxicity testing and a comprehensive suite of physico-chemical analyses were reported to DEWHA in GNS-SRPT-0502 dated 9 <sup>th</sup> March 2009. A report on the temporal variability of the effluent will be included in the updated Module L using publicly available data published by the World Bank for the Orion Project mill in Uruguay and any other relevant information that may become available.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A27	Laboratory studies required to determine the properties affecting the fate of fine particulate organic matter in effluent	Condition 35	See activity report for Item A26 above. The results of the particulate studies were reported to DEWHA in SSC-SRPT-0511 dated 17/05/10.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A28	Baseline monitoring of contaminants in marine sediments and biota	Condition 36	The Commonwealth Baseline Operational Monitoring Plan (C-BOMP) was submitted to the Minister as Appendix C to EIMP Module M in December 2008. Work on a refined hydrodynamic and sediment transport model required under the EIMP progressed during the current reporting period which included using data on sediment grain size, organic carbon and background concentrations of potential contaminants in sediment collected from the top 2cm of samples obtained in the previous reporting period. Consolidated data and the results of the refined modelling will be included in the updated Module M.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A29	Additional hydrodynamic modelling to be carried out prior to commissioning of the mill	Condition 38	The scope of works for the additional modelling required under Condition 38 and the organisation(s) responsible for performing the modelling were approved by DEWHA during the previous reporting period. The detailed methodology applicable to the scope of works was approved by DEWHA in July 2009. Progress implementing the detailed modelling methodology during 2009/10 has been reported to DEWHA via a series of milestone reports. These reports have been reviewed by DEWHA and the IEG as part of the agreed methodology with the objective being to provide a final consolidated report on the results of the modelling to DEWHA in November 2010. This final report will inform the Minister's consideration of the revised Modules L, M & N.	Nil	There were no unsatisfied Approval Requirements relating to this Condition
A30	Monitoring program results	Condition 43	The Commonwealth Baseline Operational Monitoring Plan (C-BOMP) was provided as Appendix C to EIMP Module M submitted in December 2008. Marine baseline monitoring programs described in that plan were suspended pending the results of the refined hydrodynamic modelling (Condition 38) and revision of the C-BOMP to be resubmitted with Module M in November 2010  No marine or estuarine construction-related monitoring was undertaken due to those	Nil	There were no unsatisfied Approval Requirements relating to this Condition

Table A Reporting obligations directly under EPBC 2007/3385					
Item	Subject	Reference	Activity report	Non Compliance	Strategies for addressing unsatisfied Approval requirements
			construction activities not commencing prior to 30 June 2010. Commonwealth terrestrial construction monitoring activities for the 2009/10 reporting period were limited to ongoing seasonal assessments of wedge tailed eagle nest #130 (Condition 15) and road kill reporting (Condition 26)		
A31	Ministerial requests for EIMP revisions	Condition 44	There were no EIMP revision requests received from the Minister.	Nil	Not applicable
A32	Departmental requirements for independent audit of compliance with EIMP	Condition 46	No EIMP compliance audit requests were received from the Department.	Nil	Not applicable
A33	Departmental notification of any breach or anticipated breach	Condition 47	There were no breaches or anticipated breaches reported by Gunns or DEWHA in relation to these conditions in the 2009/10 reporting period. On the 11 <sup>th</sup> September 2009 Gunns received a letter from DEWHA documenting observations on the progress of early works and seeking clarification on certain aspects of specific works and the detailed requirements of the EIMP. These included the timing and sequence of the vegetation clearing activities, delineation of car parking areas and access tracks, implementation of weed and pathogen hygiene procedures and supervision of operations. Gunns provided a letter of clarification on these matters to DEWHA on the 16 <sup>th</sup> September 2009.	Nil	There were no unsatisfied Approval Requirements relating to this Condition

Table B. Reporting obligations under the EIMP (pre-construction and construction elements)					
Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
<i>EIMP Environmental Objective: Minimise impacts on the wedge-tailed eagle - Tasmanian (Aquila audax fleayi)</i>					
B1	No abandonment of wedge-tailed eagle nest #130.	B, C, C1, D, E, F-G-H-K, I-J Section 1c	The nest was monitored in September and November 2009 and although not used for breeding this season it was considered to be active by the specialist eagle consultant. The specialist's advice was that eagles can have a number of nests within their home territory and it is uncommon for eagles to breed every year. An adult male eagle in the vicinity of the nest during the September inspection and evidence of re lining of the nest observed in November suggests the nest remains active.	Nil	There were no unsatisfied EIMP requirements relating to this condition
<i>EIMP Environmental Objective: Ensure effective monitoring of impacts on the Wedge-tailed Eagle - Tasmanian (Aquila audax fleayi)</i>					
B2	Annual (second weeks of September and November) monitoring of the wedge-tailed eagle nest #130. Report results to DEWHA	B, D, E, F-G-H-K, I-J Section 1c	Nest #130 was inspected for activity on 9 <sup>th</sup> September and 13 <sup>th</sup> November 2009. The 2009 inspection report was submitted to DEWHA on 2 <sup>nd</sup> December 2009. The report is provided in Appendix A.	Nil	There were no unsatisfied EIMP requirements relating to this condition
<i>EIMP Environmental Objective: Identify a Wedge-tailed eagle habitat offset that could be implemented if mill construction activities cause wedge-tailed eagles to abandon nest #130</i>					
B3	Identify a suitable offset (at least 20ha in area surrounding an existing unreserved eagles nest) and ensure it is adequately reserved, managed and protected so that habitat values are maintained	O Section 1c	The requirement to identify and reserve a suitable wedge-tailed eagle habitat offset is triggered only in the event nest #130 is deemed abandoned during construction, or in the first breeding season after the commencement of construction. Nonetheless, a detailed response strategy is included in EIMP Module O.  The EIMP identifies a 40ha area of suitable eagle nesting habitat near Mt Direction south east of the pulp mill site which is potentially available as an offset should nest #130 be abandoned.  In the 2009/10 reporting period nest #130 was determined to be not abandoned and therefore the offset strategy was not triggered.	Nil	There were no unsatisfied EIMP requirements relating to this condition
<i>EIMP Environmental Objective: Minimise vegetation disturbance</i>					
B4	No disturbance of vegetation outside this module's pulp mill disturbance footprint	B, C, C1 Section 1c	The mill construction footprint was GPS surveyed and clearly delineated with flagging tape prior to clearing. Operators were inducted into the site requirements and regular inspections confirmed vegetation clearing and road construction activities were confined to the flagged pulp mill footprint	Nil	There were no unsatisfied EIMP requirements relating to this condition
B5	No disturbance of vegetation outside this module's accommodation facility disturbance footprint.  The area containing <i>Melaleuca ericifolia</i> forest is to be clearly delineated and protected from all impacts	E Section 1c	The workers accommodation site boundary was GPS surveyed and clearly delineated with flagging tape prior to clearing. The area of <i>Melaleuca ericifolia</i> was then flagged and reserved. Operators were inducted into the site requirements and inspections confirmed all vegetation clearing activities were confined to the approved footprint. The area of <i>M. ericifolia</i> remains undisturbed.	Nil	There were no unsatisfied EIMP requirements relating to this condition
B6	No disturbance of vegetation outside the pipeline corridor.	F-G-H-K Section 1c	The pipeline corridors and associated infrastructure at Likemans Hill & Trevallyn were GPS surveyed and clearly delineated with flagging tape prior to clearing. Operators were inducted into the site requirements and inspections confirmed all vegetation clearing activities were confined to the approved construction corridors and associated infrastructure.	Nil	There were no unsatisfied EIMP requirements relating to this condition
B7	No disturbance of vegetation outside the construction footprint (solid waste disposal	I-J	There was no vegetation clearing undertaken at the solid waste disposal facility or local reservoir during the reporting period. Site activities were confined to ongoing	Nil	There were no unsatisfied EIMP requirements relating to this condition

Table B. Reporting obligations under the EIMP (pre-construction and construction elements)					
Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
	facility and local reservoir)	Section 1c	ground and surface water monitoring in accordance with State Permit requirements		
<b>EIMP Environmental Objective: Minimise the risk of non detection of listed flora</b>					
B8	No non-detection of listed flora.	B, F-G-H-K, I-J Sections 1c & 1b	Spring flora surveys were completed for previously unassessed parts of the proposed pulp mill footprint in Oct 2009. These surveys were required for possible water and effluent pipeline realignments. No Commonwealth listed plant species were detected. Refer Gunns report titled <i>Ecological Values Associated with Previously Unassessed Parts of the Proposed Pulp Mill Disturbance Footprint (ECOtas-2010)</i> .	Nil	There were no unsatisfied EIMP requirements relating to this condition
<b>EIMP Environmental Objective: Prevent the spread and reducing the impact of <i>Phytophthora cinnamomi</i></b>					
B9	No spread of <i>Phytophthora cinnamomi</i> as a result of the clearing activities (on the pulp mill site)	B Section 1c	<p>Site inductions were undertaken by all staff and contractors covering project weed and pathogen hygiene requirements prior to commencement of pulp mill site vegetation clearing.</p> <p>All heavy machinery involved with vegetation clearing was required to be washed down prior to arrival on site. Machinery was inspected on arrival at the entry to the pulp mill site and issued with a green sticker if deemed weed and pathogen free. A weed and pathogen certification register has been maintained for all machinery involved with the vegetation clearing activities.</p> <p>Wash down facilities for light vehicles are located at the entry to the pulp mill site. A light vehicle weed and pathogen free certification register is maintained as part of the pulp mill site access procedure.</p> <p>Gravel required for access road construction was sourced from certified weed and pathogen free suppliers.</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition
B10	No spread of <i>Phytophthora cinnamomi</i> as a result of the bulk earthworks activities	C, C1 Section 1c	There were no bulk earthworks activities undertaken in the reporting period	Nil	Not applicable
B11	No spread of <i>Phytophthora cinnamomi</i> as a result of the clearing activities (at the workers accommodation facility)	E Section 1c	<p>Site inductions were undertaken by all staff and contractors covering project weed and pathogen hygiene requirements prior to commencement of workers accommodation facility vegetation clearing.</p> <p>All heavy machinery involved with vegetation clearing was required to be washed down prior to arrival on site. Machinery was inspected on arrival at the entry to the workers accommodation site and issued with a green sticker if deemed weed and pathogen free. A weed and pathogen certification register has been maintained for all machinery involved with the vegetation clearing activities.</p> <p>Light vehicles were required to be either washed down before arrival on site or otherwise remain on formed access roads</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition
B12	No spread of <i>Phytophthora cinnamomi</i> as a result of the pipeline construction activities.	F-G-H-K Section 1c	<p>Site inductions were undertaken by all staff and contractors covering project weed and pathogen hygiene requirements prior to commencement of pipeline vegetation clearing.</p> <p>All heavy machinery involved with vegetation clearing was required to be washed down prior to arrival on site. Machinery was inspected on arrival at the pipeline</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition

Table B. Reporting obligations under the EIMP (pre-construction and construction elements)					
Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
			<p>corridor and issued with a green sticker if deemed weed and pathogen free. A weed and pathogen certification register has been maintained for all machinery involved with the pipeline vegetation clearing activities.</p> <p>Light vehicles were required to be either washed down before arrival on site or otherwise remain on formed access roads</p>		
B13	No spread of <i>Phytophthora cinnamomi</i> as a result of the solid waste disposal facility and local reservoir construction activities	I-J Section 1c	<p>There were no construction activities undertaken at the solid waste disposal facility or local reservoir during the reporting period. Site activities were confined to ongoing ground and surface water monitoring in accordance with State Permit requirements.</p> <p>Weed and pathogen hygiene requirements for light 4WD vehicle access were maintained as part of the pulp mill site access procedures</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition
<b>EIMP Environmental Objective: Minimise impacts on the central north burrowing crayfish (<i>Engaeus granulatus</i>) &amp; Mt Arthur burrowing crayfish (<i>Engaeus orramukunna</i>)</b>					
B14	No impacts on the central north burrowing crayfish ( <i>Engaeus granulatus</i> ) and the Mt Arthur burrowing crayfish ( <i>Engaeus orramukunna</i> )	B, C, C1, E, F-G-H-K, I-J Section 1c & 1b	<p>Surveys for these species were undertaken and reported to DEWHA in Appendix I of EIMP Module B. The surveys and report found no evidence of central north burrowing crayfish (<i>Engaeus granulatus</i>) or Mt Arthur burrowing crayfish (<i>Engaeus orramukunna</i>) in the project area.</p> <p>Additional flora and fauna surveys covering alternative pipeline alignments in October 2009 again found no evidence of these burrowing crayfish species in the project area</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition
<b>EIMP Environmental Objective: Manage the risks to listed threatened species associated with roadkill</b>					
B15	No increase in traffic volumes and therefore no increase in the risks to listed threatened species from roadkill	B Section 1c	<p>Vegetation clearing on the pulp mill site commenced 3<sup>rd</sup> August 2009 and was substantially completed by 3<sup>rd</sup> December. Construction related vehicle traffic during this period totalled 489 vehicles. The average increase in vehicle traffic accessing the pulp mill site during vegetation clearing is therefore calculated to have been less than 6 vehicles (12 traffic movements) per working day. This is less than the expected increase of 15-20 additional traffic movements per day anticipated in Module B.</p> <p>Increases in traffic volumes during the period of vegetation clearing were minimised by car pooling wherever practical and by retaining pulp mill project staff in Launceston. A number of staff from Gunns Forest Products Tamar have also been transferred to be based in Launceston.</p> <p>No Commonwealth listed species were recorded from the roadkill monitoring program during the reporting period.</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition
B16	Implementation of agreed roadkill response measures	C, C1, E Section 1c & 3b	<p>Baseline monitoring of roadkill on the East Tamar Hwy was reported in Appendix F of Module C.</p> <p>Additional roadkill response commitments described in Section 3b of Module C are as reported as follows:</p> <p><u>Commitment 1.</u> The speed limit on the main chip mill access road off the East Tamar Hwy was reduced from 60 to 40 km/h in 2008. Transportation contractors were formally advised of the change at the time. 40km/h signs have been posted on the main chip mill access road and the newly constructed pulp mill access road. A 20</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition

**Table B. Reporting obligations under the EIMP (pre-construction and construction elements)**

Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
<p>km/h sign has been posted at the end of the pulp mill access road.</p> <p><u>Commitment 2.</u> Daily monitoring of pulp mill access roads for road killed carcasses has been implemented in accordance with the EIMP. The location of any roadkill is recorded by GPS before the carcass is photographed and removed from the road to minimise the risk of secondary roadkill from carcass feeding. Results of the roadkill monitoring are recorded in a roadkill register and reported to DEWHA. There have been no Commonwealth listed species recorded from the roadkill monitoring program in the 2009/10 reporting period.</p> <p><u>Commitment 3.</u> The staged approach to the early construction works undertaken during the reporting period resulted in substantially less worker traffic over time than anticipated in Module C. Although not strictly comparable to the full scale start up originally envisaged, construction worker vehicle entries to the site have nonetheless been monitored in accordance with the EIMP for the 44 week period from the commencement of vegetation clearing in August 2009 through to June 30 2010. Construction vehicle entries to the site for this period totalled 1,690 or around 7 vehicles per day on average. This compares favourably to an estimated pro rata committed expected cumulative total in Table 5 of Module C of around 650 vehicle entries for the 6 week vegetation clearing phase or around 22 vehicle entries per day. The results of the vehicle entry monitoring have been reported to DEWHA.</p> <p><u>Commitment 4.</u> The average number of construction workers travelling to the site on a daily basis peaked at about 10 during the construction of the access road in the period ending 30<sup>th</sup> April 2010. At no time did the number of construction workers travelling from Launceston or George Town exceed 50 so there was no need to arrange a daily bus service to the site from either of those locations.</p> <p><u>Commitment 5.</u> All heavy machinery transportation to the site was undertaken outside the crepuscular period in accordance with the EIMP</p> <p><u>Commitment 6.</u> At no time during the reporting period did the workers number on site exceed 200 so the cross river feasibility study was not triggered.</p> <p><u>Commitment 7.</u> Gunns commitments to minimising the impacts of construction traffic on roadkill are detailed in the general site induction package as well as in relevant sections of job specific JSEAs.</p> <p><u>Commitment 8.</u> Traffic counting and classifying equipment is installed on the main access road to the pulp mill site. The equipment collects data on speed, time and axle configuration for inward and outward bound traffic. The information is generated monthly for reporting to DEWHA.</p>					
<p><i>EIMP Environmental Objective: Protect the network of reserves across the pulp mill site</i></p>					
B17	No disturbance to the network of reserves across the pulp mill site	B, C, C1, O Section 1c	<p>155ha of reserves were established around the pulp mill site as described in EIMP Module B</p> <p>The protection of the reserve system from construction activities is a key management issue reinforced during the site induction process. All staff and contractors involved in the vegetation clearing or other construction activities during the reporting period were inducted into the reserve protection requirements</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition

<b>Table B. Reporting obligations under the EIMP (pre-construction and construction elements)</b>					
<b>Line Item</b>	<b>EIMP Performance Measure</b>	<b>Module</b>	<b>EIMP Performance Report</b>	<b>Non Compliance</b>	<b>Remediation Strategies</b>
			<p>The approved pulp mill disturbance footprint was located in the field using GPS and clearly delineated with flagging tape prior to commencement of vegetation clearing. Daily inspections and systematic auditing was undertaken to ensure all construction was confined to the approved areas.</p> <p>Inspections confirmed the network of reserves across the pulp mill site have not been disturbed by construction activities.</p> <p>EIMP Module O specified a target date of 4<sup>th</sup> October 2009 by which time the reserves surrounding the pulp mill site were to be formally protected by a conservation covenant under the Tasmanian Nature Conservation Act. This target date has been met and confirmed by DEWHA in correspondence dated 7<sup>th</sup> October 2009.</p> <p>Annual monitoring of these reserves was undertaken and photo monitoring points have been established at key locations within the pulp mill reserves as required under Section 1d.1 of EIMP Module O. Results of the monitoring and photo reference points are attached to this report in Appendix C.</p>		
<b><i>EIMP Environmental Objective: Minimise Impacts on listed threatened and migratory birds</i></b>					
B18	No abandonment of any shore bird nest within the shore crossing construction corridor	D, F-G-H-K Section 1c, 2j.1	There were no construction activities undertaken at the location of the onshore effluent pipeline shore crossing or the wharf site during the reporting period.	Nil	Not applicable
<b><i>EIMP Environmental Objective: Minimise impacts on the white-bellied sea eagle (Haliaeetus leucogaster)</i></b>					
B19	There are no EIMP performance measures specific to this EIMP Environmental Objective. The performance report is drawn from the Management Commitments in Section 2j.2 of Module D	D Section 2j.2 F-G-H-K Section 1b	<p>In December 2009 a sea eagle nest was discovered on private property near the planned water supply pipeline alignment at Hillwood. The nest was not active in the 2009/10 breeding season. The nest location was reported to DEWHA on 22<sup>nd</sup> December 2009.</p> <p>In accordance with Section 2j.2 of Module D a pre construction survey will be conducted to determine the activity status of the nest and a breeding season buffer from August 1 until January 31 applied to construction activities if the nest is found to be active.</p> <p>There was no pipeline construction near the sea eagle nest during the 2009/10 reporting period</p>	Nil	EIMP modules D & F-G-H-K currently state there are no known white-bellied sea eagle nests in the project area. This statement is no longer correct. It is recommended that revisions of Module D, F-G-H-K and M include reference to this eagle nest including monitoring requirements consistent with Condition 28 of the approval
<b><i>EIMP Environmental Objective: Minimise acoustic impacts on the Australian Grayling (Prototroctes maraena)</i></b>					
B20	No harmful underwater noise levels in areas where the Australian Grayling (Prototroctes maraena) may be present	D Section 1c	<p>A pre construction desk top study estimating the likely upper limits of underwater sound impacts at various distances from the wharf construction site was completed in 2008 and submitted as Appendix C to Module D.</p> <p>There has been no construction at the wharf site to date so it has not been possible to validate the results of the modelling exercise or conduct any underwater construction noise monitoring.</p>	Nil	Not applicable
<b><i>EIMP Environmental Objective: Minimise acoustic impacts on whales, dolphins and seals</i></b>					

Table B. Reporting obligations under the EIMP (pre-construction and construction elements)					
Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
B21	No harmful underwater noise levels in areas where whales, dolphins and seals may be present	D, F-G-H-K Section 1c	<p>A pre construction desk top study estimating the likely upper limits of underwater sound impacts at various distances from the wharf construction site was completed in 2008 and submitted as Appendix C to Module D.</p> <p>There has been no construction at the wharf site to date so it has not been possible to validate the results of the noise modelling exercise.</p> <p>Similarly, there has been no requirement to implement the marine mammal observer (MMO) protocol to minimise the potential impacts of underwater construction noise on whales, dolphins or seals</p>	Nil	Not applicable
<i>EIMP Environmental Objective: Minimise marine vessel strike</i>					
B22	No marine vessel strikes by vessels associated with construction of the wharf or ocean outfall	D, F-G-H-K Section 1c	<p>There has been no construction at the wharf or ocean outfall sites to date so there has been no requirement to implement the marine mammal observer (MMO) protocols to minimise the potential for vessel strikes.</p> <p><u>Note:</u> The Tasports Harbour Master has advised that vessels transiting the Tamar estuary should maintain an optimum speed of 12 knots to provide sufficient water flow past the rudder to allow safe steering. The EIMP currently states pulp mill vessels will be speed limited and the maximum allowed speed when transiting the Tamar estuary to minimise the risk of vessel strike is 5 knots. The Harbour Master has warned that vessels travelling at less than 5 knots will lose effective steering capacity.</p>	Nil	There are currently no unsatisfied EIMP requirements relating to this condition. However, in relation to the identified safety considerations related to vessel speeds in the Tamar estuary it is recommended that the current revision of Module M reconsider strategies to reduce the likelihood of pulp mill construction vessel strike
<i>EIMP Environmental Objective: Minimise impacts on the shiny grass tree (Xanthorrhoea aff. bracteata)</i>					
B23	No damage to individuals or communities of shiny grass tree ( <i>Xanthorrhoea aff. bracteata</i> )	F-G-H-K Section 1c	<p>Pre construction surveys confirmed <i>Xanthorrhoea bracteata</i> is restricted to small patches near but outside of the waste water pipeline and shore crossing construction corridor (shown in Map 5-2 in Appendix C of Module F-G-H-K).</p> <p>There was no construction activity on the waste water pipeline or the shore crossing during the 2009/10 reporting period.</p>	Nil	Not applicable
<i>EIMP Environmental Objective: Minimise impacts on the green and gold frog (Litoria raniformis)</i>					
B24	No destruction of habitat potentially containing green and gold frog ( <i>Litoria raniformis</i> )	F-G-H-K Section 1c	<p>Potential habitat for this species has been identified along the waste water pipeline route corridor.</p> <p>There was no construction activity on the waste water pipeline during the 2009/10 reporting period.</p>	Nil	Not applicable
<i>EIMP Environmental Objective: Establish a swift parrot habitat foraging reserve</i>					
B25	Identify, protect and manage swift parrot foraging habitat offsets	O Section 1c	<p>EIMP Module O identifies 35ha of <i>E. ovata</i> forest and woodland to be reserved in the Prossers Forest area south of the pulp mill site. These reserves will compensate for the loss of 11ha of potential swift parrot foraging habitat to be cleared as a result of the pulp mill construction.</p> <p>The EIMP specified a target date of 4<sup>th</sup> October 2009 by which time the swift parrot reserves were to be formally protected by a conservation covenant under the Tasmanian Nature Conservation Act. This target date has been met and confirmed by DEWHA in correspondence dated 7<sup>th</sup> Oct 2009.</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition

Table B. Reporting obligations under the EIMP (pre-construction and construction elements)					
Line Item	EIMP Performance Measure	Module	EIMP Performance Report	Non Compliance	Remediation Strategies
			Annual monitoring of these reserves was undertaken and photo monitoring points have been established at key locations within the swift parrot foraging offsets as required under Section 1d.1 of EIMP Module O. Results of the monitoring and the photo reference points are attached to this report in Appendix C.		
<i>EIMP Environmental Objective: Provide offset habitat for listed threatened species</i>					
B26	Identify, protect, rehabilitate and manage a minimum area of 200ha to offset the loss of Commonwealth threatened fauna habitat due to pulp mill construction.	O Section 1c	<p>EIMP Module O identifies 226ha of degraded forest suitable for protection and rehabilitation to offset the clearing of Commonwealth listed fauna habitat during pulp mill construction. The area to be protected and rehabilitated includes surrounding buffer zones and is located in the Wurra Wurra Hills 6km north of Parkham in northern Tasmania (see EIMP Module O Section 2n1.2)</p> <p>The EIMP specified a target date of 4<sup>th</sup> October 2009 for the rehabilitation offset areas to be formally protected by a conservation covenant under the Tasmanian Nature Conservation Act. This target date has been met by Gunns and confirmed by DEWHA in correspondence dated 7<sup>th</sup> Oct 2009.</p> <p>Detailed planning for the rehabilitation has commenced with on ground activities timed to commence with project Notice to Proceed (see Module O Section 2n1.9.5). Active rehabilitation and long term monitoring programs described in EIMP Module O are scheduled to commence in the first June following project Notice to Proceed.</p> <p>There has been no active rehabilitation on the offset rehabilitation program pending an announcement on Notice to Proceed.</p>	Nil	There were no unsatisfied EIMP requirements relating to this condition

# Appendix A

Nest #130 inspection report 2009

# Activity Assessment of Nest #130 at the Tippogoree Hills 2009



**Jason Wiersma, Eagle Project Officer,  
Forest Practices Authority, Nov 2009**

**A Report to *Gunn's Ltd***

**FPA**  
FOREST PRACTICES AUTHORITY

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### **DISCLAIMER**

The advice contained in this document has been prepared for **Gunns Ltd** only. Whilst the Forest Practices Authority has used its best endeavours to ensure accuracy, it does not warrant that the material is free of error. Consequently, the advice is provided on the basis that the Forest Practices Authority will not be liable for any error or omission, in contract, tort or otherwise. However, should any error or omission be notified, the Forest Practices Authority will use its best endeavours to correct the advice

## **Background**

This survey is part of an annual compliance monitoring program to evaluate wedge-tailed nest occupancy in close proximity to the proposed Gunn's Pulp Mill.

## **Aim and Methods**

The aim of this nest survey was to establish whether nest site #130 was in use by a resident pair of breeding wedge-tailed eagles.

The methods used were as detailed in the FPA Fauna Technical Note No. 1 developed by FPA staff in collaboration with DPIPWE Threatened Species Section. Nest surveys were undertaken during the second week of September and November (8/9/09 & 13/11/09). Nest activity status was determined from a number of observations -

- The presence of droppings on the vegetation around the base of the tree and near the nest on branches.
- The presence of green leaves or sticks with leaves attached (indicates at the very least that the nest is being maintained).
- Adults or a chick at the nest (adults nearby the nest, may simply indicate that the nest is in occupied territory).
- The shape of the nest. This indicates the level of recent activity. Active and well-maintained nests will have a bowl (early in the season) or flat top (late season) but tend to become rounded with neglect. Old unused nests appear to sag at the edges and may appear dilapidated.
- Bleached grey sticks particularly on the top of the nest suggest no recent use, whereas brown unbleached sticks are fairly recent additions.

## **Nest Site History and Location**

Nest #130 is located 494370mE 5446653mN with a precision of approximately 20m. Nest #130 has been known to be successful in the past (Figure 1). A second nest site is also located along the Tippogoree Hills area (nest #1401 located 495214mE 54471778mN). Both nests were assessed this year as part of other Forest Practices Authority monitoring requirements in the area.

## Survey outcomes

### September Nest Survey

Nest #130 was approached by ground on the 9/9/09. During the visit an adult male was observed on a ridgeline opposite the nest. This bird became agitated as the observer approached. The nest survey was abandoned at this stage for two reasons.

- 1) If the female was incubating she would be able to see the male become agitated. This behaviour can cause incubating females to briefly leave nests until the perceived threat has gone (J.Wiersma, pers.obs.). While in general there are no problems with birds leaving an egg alone for short periods, the time taken for the observer to reach the observation point could have jeopardized the egg. Eggs left unattended increase the chance of egg predation by forest ravens and may lead to embryonic death caused by prolonged cooling or heating.
- 2) The current observation point does not provide a clear view into the nest, so nest contents cannot be viewed. Nest sites are currently considered active if an adult is in the vicinity of the nest. Thereby continuing the survey to simply view the nest would provide no further meaningful results and possibly compromise the nest site.

### November Nest Survey

The second nest check was conducted on the 13/11/09. Last year's observation point could not be used due to epicormic growth obscuring the nest site. So the second observation point located on the opposite side of the hill was used to determine status. Unfortunately this second observation point does not provide a view into the nest. Activity status can be confirmed when large chicks and adults are present at the nest. However, small chicks (1-3 weeks old) are difficult to observe. The nest appeared to be in good form although the nest structure appeared fairly bleached, which suggests no recent refurbishment of the nest. In some cases nests with fairly deep nest bowl may still be lined but this isn't obvious unless the nest can be seen into. The outcome from this survey would suggest that the nest is not in use although given the difficulty in seeing the nest contents it could have been active.

On the 18/11/09, I was conducting other aerial nest checks in the vicinity and flew over the nest at approximately 1500ft. I observed the nest to contain some brown material, suggesting that the nest had been refurbished early in the season however no chick or eggs were produced. The second nest (Nest #1401) most likely part of the same territory (1km away) was also visited and was also inactive.

## Discussion

It is fairly common that eagle pairs will not breed every year. Producing chicks is energetically demanding and following the past years drought conditions its possible the pair simply didn't breed this year. The results from the FPA's eagles study clearly shows that some pairs may choose to breed annually, although few pairs actually do this. More commonly eagles appear to breed biannually (every second year) with some pairs breeding only every two or three years. The lack of a chick at nest #130 is therefore considered normal.

There is some concern about the condition of the tree where the nest is located. Most nests found in heavily senescing trees will be abandoned, maybe due to the lack of canopy cover that shades adults and young from the sun and predators. While dead or dying trees also provide little wind shelter the tree is likely to drop limbs causing the nest structure to fall. While the nest maybe used in the coming years I believe the lifespan of the tree is fairly limited. The pair will most likely build a new nest in a nearby tree (where there appears to be plenty of suitable platforms) or utilize nest #1401 more frequently.

## **Recommendations**

Its possible ground surveys may provide a result in future years where adults or young are evident on or around the nest site. However the addition of a fixed wing survey should be considered in the event no meaningful information can be obtained from ground examinations. This aerial survey could be done as part of the FPAs eagle nest monitoring study.

## Raptor Nest Activity Assessment

**NB:**

Ground assessments are NOT to be conducted if the weather is cold or wet.

Time within 100m of the nest not to exceed 20 minutes.

Time within 200m of the nest not to exceed 1 hour.

**Nest Number: #130**

**Date: 9/9/2008**

**Observer Name and Contact Details:**

Jason Wiersma  
Eagle Biologist BSc Hons  
Forest Practices Authority  
30 Patrick St Hobart  
0448 299937

**Location Name:**

Tippogoree Hills Nest #130  
Northern Tasmania Region

**Environmental Variables**

Estimated Temperature: 12 - 15 Deg  
Fine Overcast/Showers (Please circle)  
Notes: Clear fine day minimum cloud cover.

(hh:mm)

(hh:mm)

**Start Time:**

**2:00PM**

**Finish Time:**

**2:20PM**

**Duration (mins):**

**20 min**

**Nest Description:** (Write a description of what was observed e.g. indicate quality, nest composition colour, shape, size, condition.)

Nest #130 was not observed as the male was agitated and was some distance from the nest.

**Were any of these observed on the nest?**

(tick box if present)

Green Leaves	NA
Fresh (brown) sticks	NA
White wash (droppings)	NA
Prey remains	NA
Bird on nest or nearby (note age if possible)	NA

**Bird Activity Observed:** (Write a description of what was observed e.g. Two birds soaring over the nest, bird carrying sticks)

Male was observed high on a ridge. During my approach the male flushed and started screaming. Survey ended immediately.

## Raptor Nest Activity Assessment

**NB:**

Ground assessments are NOT to be conducted if the weather is cold or wet.

Time within 100m of the nest not to exceed 20 minutes.

Time within 200m of the nest not to exceed 1 hour.

**Nest Number: #130**

**Date: 13/11/2008**

**Observer Name and Contact Details:**

**Jason Wiersma  
Eagle Biologist BSc Hons  
Forest Practices Authority  
30 Patrick St Hobart  
0448 299937**

**Location Name:**

**Tippogoree Hills Nest #130  
Northern Tasmania Region**

**Environmental Variables**

Estimated Temperature: 19 Deg  
Fine/~~Overcast~~/~~Showers~~ (Please circle)  
Notes: Clear fine day minimum cloud cover.

**Grid Reference**

Datum (circle): **GDA\***  
**Easting** 494370  
**Northing** 5446653

(hh:mm)

(hh:mm)

**Start Time:**

**11:30PM**

**Finish Time:**

**12:10PM**

**Duration (mins):**

**40 min**

**Nest Description:** (Write a description of what was observed e.g. indicate quality, nest composition, colour, shape, size, condition.)

Nest #130 was mostly bleached and resides in a dead eucalypt (e.g. 1.2 metres x 1metre). The nest retains good structure and form. Nest contents could not be seen from this vantage point (**Easting** 494373, **Northing** 5446491). No adults were seen in the vicinity. Due to the small chance a chick (or adult) may be in the nest and not seen I decided to leave the site in case my presence was causing undue stress.

**Were any of these observed on the nest?**

(tick box if present)

Green Leaves	<b>No</b>
Fresh (brown) sticks	<b>No</b>
White wash (droppings)	<b>No</b>
Prey remains	<b>No</b>
Bird on nest or nearby (note age if possible)	<b>No</b>

**Bird Activity Observed:** (Write a description of what was observed e.g. Two birds soaring over the nest, bird carrying sticks)

No adults were seen in the vicinity. Due to the small chance a chick (or adult) may be in the nest and not seen I decided to leave the site in case my presence was causing undue stress.

## Raptor Nest Activity Assessment – *Aerial Assessment*

**NB:**  
 Ground assessments are NOT to be conducted if the weather is cold or wet.  
 Time within 100m of the nest not to exceed 20 minutes.  
 Time within 200m of the nest not to exceed 1 hour.

**Nest Number: #130**

**Date: 18/11/2008**

<b>Observer Name and Contact Details:</b> Jason Wiersma Eagle Biologist BSc Hons Forest Practices Authority 30 Patrick St Hobart 0448 299937	<b>Location Name:</b> Tippogoree Hills Nest #130 Northern Tasmania Region
<b>Environmental Variables</b> Estimated Temperature: 19 Deg Fine/Overcast/Showers (Please circle) Notes: Clear fine day minimum cloud cover.	<b>Grid Reference</b> Datum (circle): <b>GDA*</b> <b>Easting</b> 494370 <b>Northing</b> 5446653

(hh:mm)

(hh:mm)

**Start Time:**

**2:30PM**

**Finish Time:**

**2:31PM**

**Duration (mins):**

**1 min**

<p><b>Nest Description:</b> (Write a description of what was observed e.g. indicate quality, nest composition, colour, shape, size, condition.)</p> <p>Nest #130 was mostly bleached and contained a small amount of brown material in the nest bowl. This suggests that the nest had been lined early in the season but no eggs or checks were produced. The nest retains good structure and form. But is becoming very bleached.</p>	<p><b>Were any of these observed on the nest?</b>  <small>(tick box if present)</small></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Green Leaves</td> <td style="text-align: center;"><b>No</b></td> </tr> <tr> <td>Fresh (brown) sticks</td> <td style="text-align: center;"><b>No</b></td> </tr> <tr> <td>White wash (droppings)</td> <td style="text-align: center;"><b>No</b></td> </tr> <tr> <td>Prey remains</td> <td style="text-align: center;"><b>No</b></td> </tr> <tr> <td>Bird on nest or nearby (note age if possible)</td> <td style="text-align: center;"><b>No</b></td> </tr> </table>	Green Leaves	<b>No</b>	Fresh (brown) sticks	<b>No</b>	White wash (droppings)	<b>No</b>	Prey remains	<b>No</b>	Bird on nest or nearby (note age if possible)	<b>No</b>
Green Leaves	<b>No</b>										
Fresh (brown) sticks	<b>No</b>										
White wash (droppings)	<b>No</b>										
Prey remains	<b>No</b>										
Bird on nest or nearby (note age if possible)	<b>No</b>										

**Bird Activity Observed:** (Write a description of what was observed e.g. Two birds soaring over the nest, bird carrying sticks)

No Adults were observed in the vicinity

## References

Forest Practices Authority (FPA) (2007). Online version of the Threatened Fauna Manual. <http://www.fpa.tas.gov.au/index.php?id=82>

# Appendix B

## Roadkill monitoring data summary 2009/10

### Pulp mill access road - monthly monitoring results

Month	Jul 09	Aug 09	Sept 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	June 10
<b>Native Species</b>												
Pademelon		1		1		1	1		2	1	1	
Bennetts wallaby				1	2	1	2			1		3
Brush-tail possum					1		1	1			1	
<b>Introduced species</b>												
Rabbit												
<b>Other</b>												
Unidentifiable		1								1		
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>

### Site construction workers and vehicle entry tally August 2009 to June 2010

Period	Construction Workers	Construction Vehicles
3rd Aug 2009 - 31st Oct 2009	526	372
1st Nov 2009 - 31st Jan 2010	402	306
1st Feb 2010 - 30th April 2010	901	584
1 May 2010 - 30 June 2010	439	428

# Appendix C

2009/10 Reserve Monitoring



## 2009/2010 DEWHA Annual Report

### Reserve Monitoring – Pulp mill reserve network and swift parrot reserve

Suzette Weeding, Forest Conservation Manager, Gunns Limited

#### **1. Pulp Mill Reserve Network**

##### ***General Condition***

The pulp mill reserve network remains in good ecological condition. The vegetation within the reserve network is a diverse range of dry forest and non-forest communities. It is dominated by *Eucalyptus amygdalina* forest on dolerite, however small areas of other forest communities are also present.

The majority of the trees within the reserve were noted to be in healthy condition, some natural attrition of trees was observed, however this is consistent with the natural ecology of the forest communities present and further provides a resource for hollow dependent fauna, and those dependent on woody debris.

The reserve contains trees at a range of ages, from old dead stags to young saplings.

No disturbance was noted to vegetation within the reserve network. Minor track maintenance has occurred in sections, with sediment traps installed at strategic locations (see photo point 4 following). However no vegetation was disturbed during the minor maintenance activities.

No emergent issues (weeds, rubbish etc) were observed.

No threatened species were observed during the reserve monitoring.

##### ***Permanent Monitoring Photo Points***

The pulp mill reserve network is located in close proximity to the pulp mill footprint. For this reason five permanent monitoring points have been selected and implemented across the reserve network.

These permanent photo points are located within and directly adjacent to the reserve network to enable site specific documentation of reserve condition over time.

The location of each photo point and first photograph are included following.

**Photo point 1**

Photo point 1 is located on the eastern side of the East Tamar Highway facing north at 494547E 5444526N.



**Photo point 2**

Photo point 2 is located on the eastern side of the East Tamar Highway facing south at 495171E 5444272N.



**Photo point 3**

Photo point 3 is located on the western side of the East Tamar Highway, north of Dirty Bay, facing north east at 492925E 5444385N.



**Photo point 4**

Photo point 4 is located on the western side of the East Tamar Highway, east of Dirty Bay, facing south west at 493092E 5444264N.



## **Photo point 5**

Photo point 5 is located on the western side of the East Tamar Highway, facing south at 493346E 5443690N.



## **2. Swift Parrot Reserve**

The swift parrot reserve is located in three areas. These are referred to as:

- (i) Prossers Forest Road West (45 ha)
- (ii) Prossers Forest Road East – North East (18 ha)
- (iii) Prossers Forest Road East – South (14 ha).

The general condition monitoring of each of these areas is provided following. A single photo point has been established in each of the reserve areas to enable monitoring of reserve condition over time.

### **(i) Prossers Forest Road West**

#### ***General Condition***

This reserve contains 12 ha of *Eucalyptus ovata* forest and woodland, and surrounding 'buffer' of predominately *E. amygdalina* forest. The reserve was observed to be in good condition, containing a range of ages of trees with a small amount of tree recruitment noted.

No disturbance was noted to vegetation within the reserve and no emergent issues (weeds, rubbish etc) were observed.

No swift parrots or other threatened species were observed during the reserve monitoring.

#### ***Permanent Monitoring Photo Point***

The photo point is located within the reserve adjacent to Prossers Forest Road facing north at 515127E 5424154N.



### **(ii) Prossers Forest Road East – North East**

#### ***General Condition***

This reserve contains 9 ha of *Eucalyptus ovata* forest and woodland, and surrounding 'buffer' of predominately *E. amygdalina* forest. The majority of the reserve was observed to be in good condition, containing a range of ages of trees, however little tree recruitment was noted.

No disturbance was noted to vegetation within the reserve, however the open areas of the reserve located closest to the roadside were found to contain large numbers of Spanish heath (see white flowering small shrub in following photo). A response strategy for this issue will be developed in coming months, in consultation with DEWHA and the Tasmania government.

No swift parrots or other threatened species were observed during the reserve monitoring.



***Permanent Monitoring Photo Point***

The photo point is located within the reserve facing north west at 524275E 5419376N.



### **(iii) Prossers Forest Road East - South**

#### ***General Condition***

This reserve contains 14 ha of *Eucalyptus ovata* forest and woodland, and surrounding 'buffer' of predominately *E. amygdalina* forest. The reserve was observed to be in good condition, containing a range of ages of trees with a small amount of tree recruitment noted.

No disturbance was noted to vegetation within the reserve and no emergent issues (weeds, rubbish etc) were observed.

No swift parrots or other threatened species were observed during the reserve monitoring.

#### ***Permanent Monitoring Photo Point***

The photo point is located within the reserve facing west at 524543E 5418091N

