

# Appendix C

## Approval conditions, actions, outcomes, management

EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures, action outcomes and resultant environmental management measures

Condition	Issue	Approval requirement addressed by this module	Actions taken to prepare management measures	Findings	Management measures adopted to ensure approval condition is met
14	Wedge-tailed eagle ( <i>Aquila audax fleayi</i> )	To minimise impacts on the Wedge-tailed Eagle - Tasmanian ( <i>Aquila audax fleayi</i> ) Gunns Limited must put in place and implement, as part of the EIMP, measures including:  a) Not carrying out construction during the breeding season within the exclusion buffers of 500 m or a 1 km line of sight from any active nest.  b) If a new active nest is found within 500 m or a 1 km line of sight of clearing or construction activities, construction during the breeding season within the exclusion buffers must cease immediately. Gunns Limited must immediately notify the Department if a new active nest is found.  c) The breeding season buffer must be applied from 1 August to 31 January inclusive.	In addition to the surveys undertaken by Gunns for the Draft Integrated Impact Statement (Weeding, S. (2005) <i>Eagle nest search proposed pulp mill and associated infrastructure survey report</i> ), Mark Wapstra has also undertaken a detailed survey of the pulp mill footprint, looking for other wedge-tailed eagle or white-bellied sea eagle. The results are reported in: Environmental Consulting Options Tasmania (September 2007) <i>Assessment of proposed pulp mill footprint for nests of the wedge-tailed eagle and white-bellied sea-eagle</i> . Report prepared for Gunns Limited. A copy of that report is submitted with this module.  No new nests of wedge-tailed eagles (or white-bellied sea-eagles) were located. 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. All large trees were thoroughly examined and no eagle nests were detected.	The only nest in the vicinity of the project footprint is the already known nest #130. This is not in line of sight to the disturbance area, and is outside the buffer distance.  Nevertheless, this module notes that measures to implement this approval condition's restrictions have been incorporated into the pulp mill's Construction Environmental Management Plan (CEMP).	The requirements of condition 14 have been incorporated into the pulp mill's Construction Environmental Management Plan (CEMP), specifically items 26 and 27 of Operational Control OCO0011 <i>Fauna and flora management</i> , which also addresses related State permit requirements. The relevant extracts from the CEMP is provided below.  The CEMP is described in Module A (EIMP Overview). Copies of the CEMP's Operational Controls accompanied the submission of Module A.

Relevant extracts from CEMP Operational Control: BBA-OCO-1000-1400-0011-B-01 OCO0011 *Fauna and flora management*

OCO item	Subject	Source of Requirement	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
26.	Eagles nests	Permit 2FN9.1, p.85 EPBC 14(a)	During the period between 1 August and 1 February construction activities, or maintenance activities which last for a continuous period of greater than 30 minutes, or maintenance activities which last for more than a total period of 60 minutes within a 24 hour period, must not occur within: (a) 1000 metres of an active Wedge-tailed Eagle or a White-bellied Sea-eagle nest if the construction activities or maintenance activities are in line-of-sight of the nest site; or (b) 500 metres of an active Wedge-tailed Eagle or a White-bellied Sea-eagle nest site; unless approved in writing by the Director and the Commonwealth Minister.	General Superintendent	Ongoing	Inspection records	
27.	Identify previously unknown eagle nest sites	Permit 40, p.426 Permit 10, p.432 EPBC14(b) EPBC 15 EPBC 28	Previously unrecorded eagle nest sites, noted during clearing and/or construction activities will be reported to the Environmental Manager who will inform DEWHA and NPWS. If a new active nest is located within 500 m or 1 km line of site of clearing or construction activities during the breeding season (1 August to 31 January) work within that buffer must cease immediately and the DEWHA notified.	General Superintendent	Ongoing	New site notification	

(Continued): EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures, action outcomes and resultant environmental management measures

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15	Wedge-tailed eagle nest #130 ( <i>Aquila audax fleayi</i> )	<p>To ensure effective monitoring of impacts on the Wedge-tailed Eagle - Tasmanian and as part of the EIMP, Gunns Limited must:</p> <p>a) With an appropriately qualified person, approved by the Department conduct monitoring checks on the Wedge-tailed Eagle nest known as #130 'Tippogoree Hills' in the second week of September and in the second week of November each year for five years, in accordance with the 'Forest Practices Authority, Fauna Technical Note Series - Eagle Nest Management'.</p> <p>b) Provide results from the monitoring to the Department and to the Tasmanian Department of Primary Industries and Water within one month of each monitoring event and provide the information in the annual performance report against the EIMP.</p> <p>c) Should nest #130 'Tippogoree Hills' be abandoned during construction or in the first breeding season after the commencement of construction, Gunns Limited must, within six months of becoming aware of the abandonment, submit an offset response strategy to the Department for approval. The response strategy must provide for the protection of a minimum of 20 ha surrounding an eagle nest that is not protected in a 'formal reserve'. This response strategy and its timing must be included in the EIMP and detail a site description, connectivity with other habitats and mechanisms for long term protection, conservation and management. The Department may request that the response strategy be revised or amended before approval; any such request must be responded to within the time frame specified in the request.</p>	<p>DEW approved Mark Wapstra (ECOTas) on 23 October 2007 and Jason Wiersma on 7 November 2007 to be suitably qualified persons to inspect eagle nests.</p> <p>Mr Wiersma has advised that the following classifications of breeding status are appropriate to use:</p> <ul style="list-style-type: none"> <li>• <i>Occupied</i>: refers to a territory or home range where at least one eagle is resident. It does not relate solely to birds being at a nest but simply frequenting an area, although activity may be heightened surrounding nest sites as they are focal points.</li> <li>• <i>Active</i>: relates to the initiation of incubating. While birds may line nests with leaves, this does not signify that the nest will be actively used for breeding since the resident eagle(s) may line more than one nest in their territory where multiple nests exist.</li> <li>• <i>Successful</i>: pairs have produced a large chick (8 weeks+) with visible pin feathers over the body. From observations and literature, chicks six weeks or older have low natural mortality while they are still in the nest, ie. they have sufficient bulk and strength to fend off most predators and are regarded as physically robust in terms of weather and are mobile in that they can move to shelter.</li> <li>• <i>Territory</i>: that part of a home range that is defended.</li> <li>• <i>Chick</i>: a young eagle in the nest.</li> <li>• <i>Fledgling</i>: a near completely feathered chick.</li> </ul> <p>Jason Wiersma inspected nest #130 on 8 November 2007 and found that the nest was occupied, with one eagle chick observed.</p> <p>The breeding status of nest #130 is therefore classified as successful.</p>	<p>Annual nest inspections of nest #130 in accordance with the permit condition have been scheduled in the project's obligations register.</p>	<p>Annual nest inspections of nest #130 (condition 15(a)) have been scheduled in the project's obligations register, and commenced in November 2007 (8 November).</p> <p>The requirements of conditions 15(b) and 15(c) have been incorporated into the pulp mill's Construction Environmental Management Plan (CEMP), specifically Table 4 and item 28 of Operational Control OCO0011 <i>Fauna and flora management</i>. The relevant extracts from the CEMP is provided below.</p> <p>The CEMP is described in Module A (EIMP Overview). Copies of the CEMP's Operational Controls, including OCO0011, accompanied the submission of Module A.</p>

Relevant extracts from CEMP Operational Control: BBA-OCO-1000-1400-0011-B-01 OCO0011 *Fauna and flora management*

OCO item	Subject	Source of Requirement	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
28.	Eagle nest #130	EPBC 15(c)	Should nest #130 be abandoned during construction or in the first breeding season after the commencement of construction Gunns will within 6 months prepare an offset strategy for approval.	Environmental Manager	If nest #130 (which was being used for breeding in November 2007) is abandoned	Offset Strategy	
Table 4: Survey reporting requirements			Eagle nest #130 inspections	Provide results from the monitoring to DEWHA and to the Tasmanian Department of Primary Industries and Water within one month of each monitoring event and provide the information in the annual performance report against the EIMP (EPBC approval).			

(Continued): EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures, action outcomes and resultant environmental management measures

Condition	Issue	Approval requirement addressed by this module	Actions taken to prepare management measures	Findings	Management measures adopted to ensure approval condition is met
20	Vegetation disturbance	<p>Disturbance of vegetation at the site must be confined to the construction corridors of the pipelines and the pulp mill site and associated infrastructure and in accordance with the EIMP, including:</p> <p>a) No disturbance must occur until such time as the relevant pre-construction and construction requirements of the EIMP have been approved by the Minister;</p> <p>b) All areas to be cleared must be clearly marked to prevent damage to listed species outside the project area;</p> <p>c) Access to project areas must be via established roads or access tracks located on areas that have been subject to flora and fauna surveys as required in the EIMP and described in the preliminary documentation.</p>	All areas of the project will be covered by Site Environmental Plans (SEPs), which form part of the project's Construction Environmental Management Plan (CEMP). The CEMP is described in Module A (EIMP Overview). The SEPs will show vegetation disturbance limits.	The vegetation disturbance limit for the mill site is shown on the mill site SEP, document number BBA-SEP-1670-1400-0003 of the project's CEMP.	<p>The vegetation disturbance limit for the mill site is shown on the mill site SEP, which is the SEP relevant to this module. This SEP is provided in Appendix B. The SEP is a key contractor management tool, and will ensure that vegetation disturbance is confined to the approved footprint. Access, which will be via existing roads and tracks, is also shown on the SEP.</p> <p>Other EIMP modules relating to construction activities will also be accompanied by SEPs with similar provisions.</p> <p>The CEMP Operational Controls, specifically items 7, 8, 9, 10 and 11 of OCO0005 <i>Site preparation and rehabilitation</i>, specify requirements to clearly delineate (eg. with construction tape) construction area and sensitive areas and to remain within the construction area boundaries. These controls also address related State permit requirements. The relevant extracts from the CEMP are provided below.</p> <p>The CEMP is described in Module A (EIMP Overview). Copies of the CEMP's Operational Controls, including OCO005, accompanied the submission of Module A.</p>

Relevant extracts from CEMP Operational Control: BBA-OCO-1000-1400-0005-B-02 *Site Preparation and Rehabilitation*

OCO item	Subject	Source of Requirement	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
7.	Delineate all construction areas	EPBC 20(b)	Inspect the project footprint and identify all construction areas, access tracks, car parks and other infrastructure and delineate them with flagging tape (other flagging options will include delineator rope or electric fencing tape)	Environmental Manager	Initial site preparation	Sites delineated	
8.	Identify sensitive areas	Best practice	Identify from available documentation and plans, all construction areas and their respective land use and significance (i.e. pasture or native vegetation, archaeological and cultural significance).	Environmental Manager	Initial site preparation	Sites identified	
9.	Delineate sensitive areas	Permit 2VG3.1, p.86 Permit 2AH6.1, p.108 Permit 2AH7.1, p.108 Permit 2AH8.1, p.108 Permit VG2.1, p.233 Permit VG2.1, p.271 Permit AH8.1, p.283 Permit AH9.1, p.283 Permit VG2.1, p.322 Permit 13, p.423 EPBC 20(b)	Delineate all sensitive areas with proximity to construction areas with flagging tape (other flagging options will include delineator rope or electric fencing tape)	Environmental Manager	Initial site preparation	Sites delineated	

10.	Remain within construction boundaries	Permit 2.1, p.19 Permit 2.21, p.28 Permit 2VG1.1, p.85 Permit 5VG4.1, p.168 Permit 6VG4.1, p.177 Permit vG6.1, p.271 Permit VG6.1, p.322 Permit CN7.1, p.349 EPBC 20	All construction activities and materials must remain within the construction boundaries.	General Superintendent	Ongoing	Monthly report	
11.	Existing tracks	Permit 5ER3.1, p.162 Permit 5FN1.1, p.167 Permit 6ER3.1, p.174 Permit ER4.1, p.264 Permit 4.1, p.315 EPBC 20(c) APIA Code	All vehicle access will be confined to existing roads and tracks that have been subject to flora and fauna surveys. Permanent access tracks located in native vegetation areas must be as narrow as practicable in order to minimise the clearance of native vegetation.	General Superintendent	Prior to working in a specific area	Tracks identified	

(Continued): EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures, action outcomes and resultant environmental management measures

Condition	Issue	Approval requirement addressed by this module	Actions taken to prepare management measures	Findings	Management measures adopted to ensure approval condition is met
23	Burrowing crayfish <i>(Engaeus granulatus and Engaeus orramakunna)</i>	<p>To minimise impacts on, the Central North Burrowing Crayfish (<i>Engaeus granulatus</i>) and the Mt Arthur Burrowing Crayfish (<i>Engaeus orramakunna</i>) and as part of the EIMP, Gunns Limited must:</p> <p>a) Conduct surveys, using a suitably qualified person, agreed to by the Department, prior to commencement of construction of each relevant stage of works;</p> <p>b) If any of these species are identified during surveys, detailed management procedures must be included in the EIMP and approved prior to continuing relevant construction. Management procedures may include but not be limited to:</p> <p>i) Micro-siting of the pipeline alignment to avoid populations;</p> <p>ii) Exclusion zones around the pulp mill site as necessary; and</p> <p>iii) Translocation of individuals.</p>	<p>DEW approved Mark Wapstra (ECOTas) to be a suitably qualified person on 23 October 2007.</p> <p>The area was assessed by Mark Wapstra (ECOTas) on 30th and 31st October 2007.</p> <p>The survey report is attached in Appendix I (report 3).</p> <p>The findings of the survey work are summarised here.</p>	<p>Five live specimens of <i>Engaeus</i> were collected from various sites, as follows:</p> <ul style="list-style-type: none"> <li>• Williams Creek (1 specimen from within the area designated as the solid waste disposal site)</li> <li>• Williams Creek (1 specimen from within the area designated as the reservoir site)</li> <li>• Unnamed creek flowing into Big Bay under powerline easement (pulp mill site)</li> <li>• Poorly drained ground near Bell Bay Line (effluent pipeline route)</li> <li>• Macquarie Rivulet tributary/drain near Bullocks Head Road (water pipeline route).</li> </ul> <p>All specimens were identified as the non-threatened <i>Engaeus mairener</i>. No evidence of <i>E. granulatus</i> or <i>E. orramakunna</i> was found.</p>	<p>Neither <i>Engaeus granulatus</i> nor <i>Engaeus orramakunna</i> occur within project footprint, including within the mill site vegetation clearing area.</p> <p>No management measures are necessary.</p>

(Continued): EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures

Condition	Issue	Approval requirement addressed by this module	Actions taken to prepare management measures	Findings	Management measures adopted to ensure approval condition is met
25	<p>Northern leek orchid (<i>Prasophyllum secutum</i>)</p> <p>Tailed spider orchid (<i>Caladenia caudata</i>)</p> <p>South Esk heath (<i>Epacris exserta</i>)</p> <p>Clover glycine (<i>Glycine latrobeana</i>)</p>	<p>To minimise the risk of non-detection of listed flora, Gunns Limited must:</p> <p>a) Conduct pre-construction surveys for <i>Prasophyllum secutum</i>, <i>Caladenia caudata</i>, <i>Epacris exserta</i> and <i>Glycine latrobeana</i> within the area of potential habitat for these species at appropriate times.</p> <p>b) Conduct these surveys at all construction sites associated with the pulp mill and at 'comparative sites', where populations are known to occur.</p> <p>c) Record both positive and negative search outcomes. An estimate should then be provided of the confidence in detection of these species. Methods for this estimation should follow those described by Keith (2000)*.</p> <p>d) If populations are detected at construction sites associated with the action, then their population size and area of occupancy should be measured as described by Keith (2000)* and the management procedures included in the EIMP.</p> <p>e) Disturbance of vegetation at the site must be confined to the construction corridors of the pipelines and the pulp mill site and associated infrastructure. All areas to be cleared must be clearly marked to prevent damage to listed species outside the project area. Access to project areas must be via established roads or access tracks located on areas that have been subject to surveys.</p> <p>*Keith DA (2000). Sampling Designs, field techniques and analytical methods for systematic plant population surveys. Ecological Management and Restoration, 1, 125-139.</p>	<p>DEW approved Mark Wapstra (ECOTas) to be a suitably qualified person on 23 October 2007. A survey for these species has been undertaken by him.</p> <p>The field work, analysis and conclusions are complete and a report has been prepared: <i>Environmental Consulting Options Tasmania (October 2007) Assessment of proposed pulp mill and associated infrastructure footprint for the presence of Caladenia caudata, Prasophyllum secutum, Glycine latrobeana and Epacris exserta (permit condition 25). Report prepared for Gunns Limited.</i></p> <p>The survey report is attached in Appendix I (report 2).</p> <p>The findings of the survey work are summarised here.</p>	<p><i>Prasophyllum secutum</i>: The species was not found within the mill site vegetation clearing area. Potential habitat is limited to the last 2 km of the effluent pipeline route. No evidence of this species was found in that area. However, a follow-up survey will be undertaken in mid-November to coincide with the peak flowering time. If the species is found in the vicinity of the effluent pipeline during the mid-November survey, any resultant management measures will be included in EIMP module G and/or K.</p> <p><i>Caladenia caudata</i>: The species was not found within the mill site vegetation clearing area. Only two individuals were recorded from within the project footprint, being to the south-east of the solid waste landfill and close to the reservoir and associated road locations. Management measures will be included in EIMP modules I and J.</p> <p><i>Epacris exserta</i>: The species was not found within the mill site vegetation clearing area. The only area within the project footprint with potential habitat is the base of the cliffs adjacent to Lake Trevallyn Dam. This area will be inspected in early to mid-November. If the species is found in the vicinity of the Trevallyn Dam during the mid-November survey, any resultant management measures will be included in EIMP module F.</p> <p><i>Glycine latrobeana</i>: The species was not found within the mill site vegetation clearing area. Potential habitat for this species within the project footprint is limited. It is mainly along the water supply pipeline route close to Lake Trevallyn but there are small areas adjacent to the mill site and near the effluent pipeline route. Areas of prime potential habitat near Lake Trevallyn and adjacent to the mill site have been inspected. The species was not found. A follow-up survey of other areas, including the slope above Lake Trevallyn and open grassy areas in the last 1 km of the effluent pipeline will be undertaken between mid-November and mid-January. If the species is found in the vicinity of the Trevallyn Dam or effluent pipeline during the mid-November to mid-January survey, any resultant management measures will be included in EIMP module F and/or G and/or K.</p>	<p><i>Prasophyllum secutum</i>: The species was not found within the mill site vegetation clearing area</p> <p><i>Caladenia caudata</i>: The species was not found within the mill site vegetation clearing area.</p> <p><i>Epacris exserta</i>: The species was not found within the mill site vegetation clearing area.</p> <p><i>Glycine latrobeana</i>: The species was not found within the mill site vegetation clearing area</p> <p>However if any of the the species is subsequently discovered on the mill site then Gunns will;</p> <p>Stop work in the vicinity of the listed species</p> <p>Notify DEWHA and await an agreed course of action before recommencing the construction activity</p>

(Continued): EPBC 2007/3385 approval conditions addressed by this module, actions taken by Gunns to prepare management measures

Condition	Issue	Approval requirement addressed by this module	Actions taken to prepare management measures	Findings	Management measures adopted to ensure approval condition is met
26	Roadkill	<p>To manage the risks to listed threatened species associated with roadkill, Gunns Limited must, in accordance with the EIMP:</p> <p>a) Immediately following the date of this approval, establish baseline monitoring of roadkill along the East Tamar highway and other major access routes for construction.</p> <p>b) Monitor roadkill and implement response strategies, as necessary, in accordance with the EIMP if the number of road killed mammals exceeds the trigger levels in the EIMP.</p>	<p>A consulting firm, Genames, has been commissioned and initial data gathering has commenced. A description of this initial sampling regime is provided in Appendix D.</p> <p>Sampling results to date (up to and including the 7th January 2008 run) are shown in Appendix D.</p> <p>Two Commonwealth listed threatened individuals (both Eastern Barred Bandicoots) have been logged in the program to date. A full three-month set of results from this study will be provided in early February 2008, which will constitute the baseline. Site clearing (other than the property perimeter fence) will not commence until baseline monitoring is complete.</p>	<p>For the vegetation clearing that is the subject of this EIMP module, there will be no significant increase in traffic volumes of the East Tamar Highway. Vegetation clearing will lead to approximately 15 to 20 additional traffic movements per day, which is less than 0.5% of the average daily traffic movements (approximately 5000) on the East Tamar Highway.</p>	<p>Gunns will reduce the increase outlined in "Findings" to zero through the following:</p> <ul style="list-style-type: none"> <li>• Car pooling vegetation clearing traffic to at least halve the additional traffic (a residual increase of approximately 10 movements); and</li> <li>• Offsetting the residual 10 movements by reducing traffic to the existing Gunns woodchip facilities, which are adjacent to the pulp mill site. This would be achieved by transferring a number of staff into Launceston. Those staff have duties in the north-east of Tasmania generally, and relocation would deliver a positive offset because they would not need to travel the East Tamar Highway on a regular basis.</li> </ul> <p>The achievement of a zero net increase means that there will be no increase in the risk of roadkill as a result of the vegetation clearing and response measures are therefore not relevant to this module</p> <p>In relation to subsequent modules, Gunns recognises that there will be a net increase in traffic as a result of the construction of the mill. Gunns notes its obligation to implement response strategies if the number of roadkilled mammals exceeds trigger levels to be established in the EIMP. However, Gunns and the Government have agreed that Gunns will develop and implement response strategies in subsequent modules in any event (ie. as if there were a zero trigger level for roadkilled mammals). Gunns will therefore develop, for inclusion in subsequent modules that relate to the preconstruction and construction phases, the following:</p> <ol style="list-style-type: none"> <li>1. Speed reductions on the site access road from the East Tamar Highway and internal site road networks - reduction from 60km/hr to 40km/hr on access road and a 20km/hr limit on mill construction site internal networks.</li> <li>2. Removal of any roadkill carcasses on the mill access roads to minimise risks of roadkill from carcass feeding.</li> <li>3. Worker traffic - Implementation of a range of measures, including car pooling and bus transport, to minimise construction worker vehicle movements associated with construction of the mill.</li> <li>4. Worker traffic - With specific reference to bus transport for construction worker traffic, Gunns will ensure that a daily bus service from Georgetown or Launceston (or both) is employed</li> </ol>

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					<p>when construction workers travelling from either of those locations exceeds 50.</p> <p>5. Other traffic - Scheduling of construction heavy vehicle (ie. Non-employee movement) related traffic for the minimisation of traffic during crepuscular periods (dawn and dusk) to minimise fauna roadkill.</p> <p>6. A feasibility study into the possibility of a cross-river ferry service for the transportation of construction workers from the West Tamar to the site.</p> <p>7. Site induction for all employees to include alerting them to the impact of roadkill and the need for care.</p> <p>To assist in monitoring compliance with these measures, Gunns will:</p> <ol style="list-style-type: none"> <li>1. install and maintain for the duration of the pre-construction and construction phases, a traffic counting device on the main site access road;</li> <li>2. submit quarterly results covering traffic movements, vehicle type and speed; and</li> <li>3. submit quarterly results detailing the total number of workers involved in construction and their area of residence, as well as the number transported by bus.</li> </ol>