

COMMONWEALTH OF AUSTRALIA

ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

DECISION TO APPROVE THE TAKING OF AN ACTION

Pursuant to section 133 of the *Environment Protection and Biodiversity Conservation Act 1999*, I, MALCOLM BLIGH TURNBULL, Minister for the Environment and Water Resources, approve the taking of the following action:

to construct and operate a bleached Kraft pulp mill at Bell Bay, Tasmania, and associated infrastructure (EPBC 2007/3385).

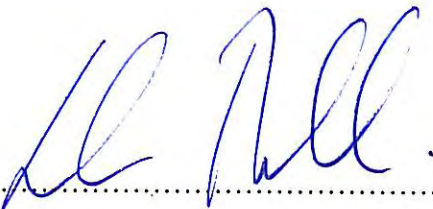
by Gunns Limited subject to the conditions set out in ANNEXURE 1.

This approval has effect for:

Sections 18 and 18A (Listed threatened species and communities); Sections 20 and 20A (Listed migratory species); Sections 23 and 24A (Commonwealth marine areas) of the Environment Protection and Conservation Biodiversity Act 1999.

This approval has effect until 31 December 2057.

Dated this 4th day of October 2007


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ANNEXURE 1

- 1) The action shall be as per the site maps at Schedule 1.
- 2) Gunns Limited¹ must develop and submit an Environmental Impact Management Plan (EIMP) for the Minister's approval in accordance with the outline at Schedule 2. The objective of the EIMP must be to ensure no adverse impacts on matters of national environmental significance as a result of the action.
- 3) The EIMP must include trigger points and maximum limits in relation to effluent discharge from the operation of the pulp mill as well as specific remedial management responses to be undertaken by Gunns Limited if trigger points are exceeded or maximum limits are reached. It shall be an operational objective of the pulp mill, and reflected in the EIMP, that trigger points, and maximum limits, are not to be reached.
- 4) If at any time during the taking of the action there are reasonable grounds for any of Gunns Limited, the Minister, the Department, the Independent Expert Group or the Independent Supervisor to believe that the maximum limits for effluent discharge in this approval, or in the EIMP, are likely to be exceeded, then that party (if it is not Gunns Limited) shall immediately inform Gunns Limited. Once Gunns Limited has either been so informed or itself believes maximum limits are likely to be exceeded, it must immediately implement the response strategies in the EIMP, in accordance with the stipulated timeframes. If within the stipulated timeframe Gunns Limited is unable to demonstrate to the satisfaction of the Minister that response strategies are achieving their objective as set out in the EIMP to reverse the undesirable impacts, the mill must cease to operate until such time as a tertiary treatment solution satisfactory to the Minister is installed.
- 5) If at any time during the taking of the action the trigger levels for effluent discharge in this approval, or in the EIMP, are exceeded, then Gunns Limited must immediately implement the response strategies in the EIMP, in accordance with stipulated timeframes.
- 6) The EIMP must be developed in consultation with an independent expert group ("the Independent Expert Group"), appointed by the Minister, drawn from leading national and international scientists with relevant expertise, to advise the Minister and the Department as required and assist in the design, implementation and approval of the EIMP.
- 7) The EIMP may be submitted to the Minister in sections, it being recognised that some parts of the EIMP will need to be approved pre-construction, whereas other sections will require the completion of further studies including the hydrodynamic modelling referred to in condition 38. The EIMP must be completed and approved by the Minister within twelve months of this approval unless the Minister consents to an extension of time for the purpose of completing particular elements of the EIMP. The approved EIMP must be implemented by Gunns Limited.
- 8) All provisions of this approval identified as required prior to and during construction must be implemented prior to the relevant stage of construction.

¹ Gunns Limited is the holder of this approval pursuant to section 133 of the *Environment Protection and Biodiversity Conservation Act 1999*. The conditions of this approval bind Gunns Limited as well as any person authorised, permitted or requested by Gunns Limited, or another person acting with the consent or agreement of Gunns Limited, to take the action. As set out in condition 13, Gunns Limited must ensure all persons authorised by the approval to take the action are fully aware of their legal responsibilities under this approval.

- 9) No commissioning activity is to commence until the final and complete EIMP has been approved by the Minister. Once approved, the EIMP must be implemented.
- 10) An independent site supervisor (“the Independent Supervisor”) will be appointed by the Minister to verify the taking of the action in accordance with the approved EIMP. The Independent Supervisor shall be provided by Gunns Limited with access to all information and locations required by the Independent Supervisor. The Independent Supervisor shall be appointed as an Inspector under the Act with functions and powers to be conferred under the Environment Protection and Biodiversity Conservation Regulations 2000 sufficient to ensure appropriate access to all information required for the purpose of the task.
- 11) 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.
- 12) Gunns Limited must comply with any requirements of the Minister in relation to the rectification of any performance failures identified in the annual report.
- 13) Gunns Limited must ensure all relevant staff and contractors and any other persons working on the action receive appropriate training in relation to the requirements of this decision and comply with all the EIMP requirements relevant to their duties.

Listed threatened species

- 14) To minimise impacts on the Wedge-tailed Eagle – Tasmanian (*Aquila audax fleayi*) 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.
- 15) To ensure effective monitoring of impacts on the Wedge-tailed Eagle - Tasmanian and as part of the EIMP, Gunns Limited must:
 - 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’².
 - 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.

² Refers to the ‘Forest Practices Authority (2006) Fauna Technical Note Series: Technical Note 1: Eagle Nest Searching, Activity Checking and Management, (Ed. W.E. Brown) DPIW & Forest Practices Authority, Hobart’.

- 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’³. 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.
- 16) To offset the loss of 200ha of land at the pulp mill site and as part of the EIMP, Gunns Limited must:
- a) Within 12 months of the date of this approval, develop in the EIMP the management strategies to rehabilitate an area of at least 200ha of potential habitat for the listed threatened species Tasmanian Devil (*Sarcophilus harrisii*); Spot-tailed Quoll – Tasmanian population (*Dasyurus maculatus maculates*); Eastern Barred Bandicoot – Tasmanian (*Perameles gunnii gunni*); Swift Parrot (*Lathamus discolor*); and Southern Bell Frog (*Litoria raniformis*).
 - b) The EIMP must include details of the 200 ha offset to be rehabilitated, including a map, site description, connectivity with other habitats, appropriate buffer zones, a rehabilitation program and mechanisms for long-term protection, conservation and management.
 - c) Implementation of the offset rehabilitation elements of the EIMP must commence within two years of the date of this approval.
- 17) To protect potential habitat for the listed threatened species : Tasmanian Devil: Spot-tailed Quoll – Tasmanian population; Eastern Barred Bandicoot – Tasmanian and, as part of the EIMP, Gunns Limited must:
- a) Within 12 months of the date of this approval, develop in the EIMP management strategies to establish a network of reserves totalling at least 150 ha within the Bell Bay pulp mill site;
 - b) The EIMP must include details of the reserves at the site including a map, description of the flora and fauna, connectivity and mechanisms for long-term protection, conservation and management.
- 18) To protect potential habitat for the listed threatened species Swift Parrot and as part of the EIMP Gunns Limited must:
- a) Within 12 months of the date of this approval, confirm arrangements to establish a reserve of at least 34 ha of *Eucalyptus ovata* and/or *Eucalyptus globulus subsp. globulus* to maintain foraging habitat.
 - b) Include details of the reserve including a map, description of the flora and fauna, appropriate buffer zones, connectivity and mechanisms for long-term production, conservation and management.

³ ‘Formal reserve’ means State Reserves, National Parks, Coastal Reserves, Regional Reserves, Conservation Areas, or as determined by the Department

- c) The Department may request that the arrangements be revised or amended before approval; any such request must be responded to within the time frame specified in the request. The approved arrangements must be part of the EIMP and must be implemented.
- 19) To minimise impacts during pipeline construction on the Tasmanian Devil, Spot-tailed quoll and Eastern Barred Bandicoot, and as part of the EIMP, Gunns Limited must:
- a) Install trench ramps and trench plugs in open trenches to enable fauna to escape from the pipeline trench.
 - b) Ensure that a suitably qualified person, agreed to by the Department, checks all open trenches for trapped fauna each morning. Surviving fauna are to be relocated to suitable habitat by an ecologist trained in fauna handling procedures. Records must be kept of all live and dead fauna, including amphibians, removed from the trench.
 - c) These records must be provided to the Department within three months of commencement of trench construction and progressively each month until all trenches have been filled.
 - d) If at any time the number of fauna found in the trenches, reaches or exceeds the trigger levels defined in the EIMP, then response strategies must be implemented within the stipulated timeframes.
- 20) 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:
- 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;
 - b) All areas to be cleared must be clearly marked to prevent damage to listed species outside the project area;
 - 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 documentation⁴.
- 21) To minimise impacts on potentially suitable habitat for the Green and Golden Bell Frog (*Litoria raniformis*) and to manage risks associated with the amphibian Chytrid fungus, and as part of the EIMP, Gunns Limited must:
- a) Not commence construction of effluent and water supply pipelines until such time as the relevant pre-construction and construction requirements have been approved by the Minister.
 - b) Avoid impact on areas of identified habitat through micro-siting of the pipeline route.
- 22) All areas of the pipeline corridors, with the exception of access tracks and roads, are to be progressively rehabilitated as each 10 km of pipeline is constructed and revegetated with endemic species sourced from local seed stocks with the aim of providing habitat for listed threatened species in the area.
- a) Rehabilitation activities and timeframes must be approved as part of the EIMP.

⁴ The preliminary documentation prepared by Gunns Limited pursuant to section 95 of the *Environment Protection and Biodiversity Conservation Act 1999*.

- b) Rehabilitation performance must be reported in the EIMP annual report.
- 23) To minimise impacts on, the Central North Burrowing Crayfish (*Engaeus granulatus*) and the Mt Arthur Burrowing Crayfish (*Engaeus orramakunna*) and as part of the EIMP, Gunns Limited must:
- a) Conduct surveys, using a suitably qualified person, agreed to by the Department, prior to commencement of construction of each relevant stage of works;
 - 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:
 - i) Micro-siting of the pipeline alignment to avoid populations;
 - ii) Exclusion zones around the pulp mill site as necessary; and
 - iii) Translocation of individuals.
- 24) To minimise impacts on the listed *Xanthorrhoea aff. bracteata* species, as part of the EIMP, Gunns Limited must:
- a) Not commence construction of the onshore component of the effluent pipeline until such time as the relevant pre-construction and construction requirements of the EIMP have been approved by the Minister;
 - b) Use an ecologist, agreed to by the Department, to conduct surveys and mark out the location of the *X. aff. bracteata* on the effluent pipeline route.
 - c) Protect this site from disturbance, through micro-siting of the pipeline.
 - d) Completely prevent disturbance of the habitat of the species by boring under the dune where the *X. aff. bracteata* is located.
 - e) Develop and implement management procedures to minimise the risk of spreading the fungus *Phytophthora cinnamomi*.
 - f) Ensure all access tracks to this site are located to avoid all localities of *X. aff. bracteata* species.
 - g) Report on performance of effectiveness of these mitigation measures in the EIMP annual report.
- 25) To minimise the risk of non-detection of listed flora, Gunns Limited must:
- a) Conduct pre-construction surveys for *Prasophyllum secutum*, *Caladenia caudata*, *Epacris exserta* and *Glycine latrobeana* within the area of potential habitat for these species at appropriate times.
 - b) Conduct these surveys at all construction sites associated with the pulp mill and at 'comparative sites', where populations are known to occur.
 - 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)⁵.

⁵ Keith DA (2000). Sampling Designs, field techniques and analytical methods for systematic plant population surveys. *Ecological Management and Restoration*, 1, 125-139.

- 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.
- 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.

26) To manage the risks to listed threatened species associated with roadkill, Gunns Limited must, in accordance with the EIMP:

- 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.
- 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.

Listed migratory birds

27) To minimise impacts during onshore effluent pipeline and wharf construction on listed threatened and migratory birds, Gunns Limited must, in accordance with the EIMP:

- a) Carry out a pre-construction survey of the shoreline for breeding shorebirds for a distance of 200 m on either side of the onshore effluent pipeline construction corridor.
- b) In the event that nests are located within this area, they will be clearly marked and construction activities managed in accordance with the agreed requirements of the EIMP.
- c) Restore the beach profile to its original shape within two months of completion of the onshore effluent pipeline construction;
- d) Within two months of completion of the onshore effluent pipeline construction commence rehabilitation of vegetation in the impacted areas of the pipeline construction corridor in accordance with the requirements of the EIMP
- e) Report on performance of effectiveness of these mitigation measures in the EIMP annual report.

28) To minimise impacts during onshore effluent pipeline and wharf construction on the White-bellied Sea-eagle (*Haliaeetus leucogaster*) Gunns Limited must put in place and implement, as part of the EIMP, measures including:

- a) Conducting pre-construction surveys, by a suitably qualified person, agreed to by the Department;
- b) Not carrying out construction during the breeding season within the exclusion buffers of 500 m or a 1 km line of sight from any recorded nest except in accordance with this condition.
- c) If a new active nest is found within 500 m or a 1 km line of sight of clearing or construction activities, construction within exclusion buffers during the breeding season must cease immediately.

- d) Gunns Limited must immediately notify the Department if a new active nest is found.
- e) Applying a breeding season buffer from 1 August to 31 January inclusive.

29) To minimise impacts on the Australian Grayling (*Prototroctes maraena*) Gunns Limited must put in place and implement, as part of the EIMP, measures including:

- a) Prior to wharf construction, a desktop study must be conducted by a suitably qualified person, agreed to by the Department, to estimate the likely upper limits of the sound impacts at various distances from wharf construction site.
- b) The sound fields of the pile-driving activities should be monitored in accordance with the EIMP to re-evaluate the findings of the desktop study.
- c) If necessary, bubble curtains or other agreed response strategies must be implemented if trigger levels in the EIMP are exceeded.
- d) No night construction or under-water blasting is permitted.

Commonwealth marine environment and listed threatened and migratory marine species

Construction Impacts

30) To minimise impacts on listed threatened and migratory marine species during construction of the wharf and the ocean outfall, Gunns Limited must put in place and implement, as part of the EIMP, measures, including:

- a) Prior to wharf or ocean outfall construction, a desktop study must be conducted by a suitably qualified person, agreed to by the Department, to estimate the likely upper limits of the sound impacts at various distances from the relevant construction site.
- b) The sound fields of the pile-driving activities should be monitored in accordance with the EIMP to re-evaluate the findings of the desktop study.
- c) If necessary, bubble curtains or other agreed response strategies must be implemented if trigger levels in the EIMP are exceeded.
- d) No night construction or under-water blasting is permitted.
- e) A suitably qualified person, agreed to by the Department, must visually monitor for marine mammals within the areas defined in the EIMP;
- f) Radius zones as follows must be implemented:
 - i. A 2 km radius alert zone for whales, with a 1 km radius safety zone, within which noise-generating activities will be ceased if a whale approaches; and
 - ii. A 1 km radius alert zone for seals and dolphins with a 0.5 km radius safety zone, within which noise-generating activities will cease if a seal or dolphin approaches.

Effluent Impacts

- 31) The volume of wastewater effluent discharged from the operation of the pulp mill to the marine environment must not be more than 64 megalitres per day on an average monthly basis.
- 32) Gunns Limited must sample the effluent discharge from the operation of the pulp mill for the parameters in the tables below on at least a daily basis. The pulp mill must not operate if the monthly average effluent concentrations from the pulp mill exceed the maximum limits provided in the tables below. These limits may be revised in the final EIMP if agreed by the Independent Expert Group and approved by the Minister as a result of further studies. Maximum limits and trigger levels on additional effluent contaminants (for example, nitrate, resin acid and colour) will also be developed in the EIMP in accordance with Schedule 2.

Parameter	Monthly average effluent concentration	
	Trigger Level	Maximum Limit
Dioxins and furans	2.0 pg TEQ/L	3.4 pg TEQ/L
Chlorate (ClO ₃ ⁻)	1.9 mg/L	3.7 mg/L
Total chloroacetic acids	237 µg/L	237 µg/L

Parameter	Monthly average effluent concentration
	Maximum Limit
Total nitrogen	2.5 mg/L
Total phosphorus	0.8 mg/L
Total suspended solids	20 mg/L
Biological oxygen demand	11 mg/L

- 33) Prior to commissioning, trigger levels for effluent discharge for all phases of development must be included in the EIMP together with agreed response strategies and timeframes if trigger levels are exceeded or maximum limits reached.
- 34) In accordance with the EIMP, Gunns Limited must obtain (from overseas pulp mills already using technologies similar to that proposed) effluent samples, and conduct chemical analyses and whole effluent toxicity testing to identify the key contaminants and their concentrations and the effluent dilutions needed in the mixing zone for the proposed mill. Gunns Limited must report on the temporal variability in both the contaminant concentrations and toxicity in the effluents from these mills.
- 35) In accordance with the EIMP, to determine the properties affecting the fate of fine particulate organic matter in effluent, Gunns Limited must undertake laboratory studies, agreed to by the Department, to assess the likely settling and flocculation properties of fine particulate organic materials in equivalent effluent.

- 36) In accordance with the EIMP, to establish the level of background contaminants in sediments and biota, Gunns Limited must:
- a) Undertake a survey of sediment grain size and organic carbon content for the region containing the outfall, including adjacent coastal and offshore regions, and identified depositional zones.
 - b) Determine background concentrations of contaminants of potential concern for sediments along transects from the proposed diffuser site, including both inshore and offshore sites, paying particular attention to depositional zones with fine grain size and high organic content.
 - c) Demonstrate how these findings have both informed, and been informed by, the refined hydrodynamic and sediment transport modelling required by the EIMP.
 - d) Limit samples for this research to the top 2 cm of core samples, so that recent deposition can be determined in later studies.
 - e) Determine background concentrations of contaminants of potential concern needed to be established for sentinel biota from outside of the mixing zone and from sediments collected both inshore and at identified likely deposition zones. Species selection must be agreed to by the Department on the basis of:
 - i) Benthic surveys; and
 - ii) Expert knowledge of the prey species of listed threatened migratory and marine species and shore birds and the wide-ranging top predators, the Australian Fur Seal (*Arctocephalus pusillus*) and the Little Penguin (*Eudyptula minor*).
- 37) Gunns Limited must determine, in accordance with the EIMP, effluent monitoring requirements prior to the commencement of pulp mill commissioning. This must include but not be limited to:
- a) the parameters described in Condition 32;
 - b) a re-assessment of the Risk Quotients (RQs) for hydrophobic substances, in all media, being taken into account; and
 - c) sampling and analysis protocols and accreditation.
- 38) Additional modelling must be carried out in relation to the fate of effluent, as part of the EIMP, prior to the commencement of commissioning of the mill. The details of the modelling to be commissioned and the organisation responsible for performing the modelling must be approved by the Department. The modelling to be commissioned must include, but not be limited to:
- a) The inclusion of a sediment transport component.
 - b) The use of three-dimensional models for all levels of spatial resolution.
 - c) Increased vertical resolution for the high resolution model used in the water quality analysis.
 - d) Forcing from all mechanisms that may potentially influence residual or diurnal dynamics, including background sea level gradients, low frequency sea level oscillations, surface heat flux, sea level, temperature and salinity open boundary and initial conditions which capture mesoscale variability and wave enhanced bottom friction.

- e) The execution of long term simulations that capture seasonal variability, and evidence of the model achieving pseudo-steady state in the regional (Bass Strait) field.
 - f) The calibration of model tracers (e.g. temperature or salinity) and velocity to data derived from moored instruments (for temporal comparisons) and measured profiles (for spatial comparisons) over the period the model is simulated. This will involve a supplementary field program designed specifically for model calibration (i.e. implemented over an annual cycle). Detailed evidence of satisfactory calibration must be supplied, including correlation between phase and amplitude of calibration variables.
 - g) Sensitivity analysis for key model parameters, particularly horizontal diffusion.
 - h) The use of appropriate simulation lengths for generating plume statistics.
 - i) The use of data (modelled or measured) that captures the three-dimensional nature of the water column and seasonal variability for use in the near-field model.
- 39) In accordance with the EIMP, if the results of the modelling resulting from condition 38 indicate that effluent hydrodynamics and deposition will result in chemicals reaching trigger levels, Gunns Limited must implement approved response strategies, including, if necessary, changing the design and operation of the effluent pipeline and diffuser.
- 40) In accordance with the EIMP and conditional of the outcomes of the hydrodynamic and sediment modelling, Gunns Limited must undertake surveys to establish baseline ecological data upon which impacts of effluent can be measured. This must include, but not necessarily be limited to:
- a) A baseline (pre-commissioning) survey of both benthic infauna and epibenthic flora including:
 - i) Abundance and diversity at ‘impact’ locations outside the defined mixing zone; and
 - ii) At control locations to the east and west of the outfall.
- 41) In accordance with the EIMP, Gunns Limited must prepare and have approved by the Minister, prior to commencement of mill commissioning, strategies for monitoring the impacts of the mill effluent on the marine environment. These strategies must include but not necessarily be limited to:
- a) Appropriate early warning of reaching trigger levels in Commonwealth waters.
 - b) Effluent quantity and quality.
 - c) Chemical and ecotoxicological assessments including assessments of endocrine-disrupting ability, and ecological assessments.
 - d) Water and sediment quality and bioaccumulation of contaminants in the same sentinel biota as were used to determine baseline concentrations.
 - e) Being of appropriate statistical design, including agreed power and confidence.
 - f) Site selection will be informed by the hydrodynamic and sediment transport models.
 - g) Effluent monitoring must be undertaken on weekly composites of the daily samples.

- h) Sediment and bioaccumulation monitoring must be taken six monthly.
 - i) Dioxin and furan concentrations in the benthic sediments surrounding the marine outfall progressively towards and including Commonwealth marine waters.
 - j) Impacts of chlorate on the total area of brown algae adjacent to the marine outfall.
 - k) Pollutant levels in sentinel benthic and pelagic species.
 - l) Whole-effluent toxicity testing using species relevant to Commonwealth waters in Bass Strait.
 - m) A mechanism or mechanisms for tracing the actual movement of the effluent plume.
- 42) The maximum limit of concentration of dioxins and furans in the benthic sediments in any location within Commonwealth marine waters is 850pg TEQ/kg. To ensure that concentrations do not reach this level, trends in concentrations of samples collected in State and Commonwealth waters, in accordance with the EIMP, must be analysed and independently reviewed on a six-monthly basis.
- 43) Gunns Limited must report on the results of the pulp mill's performance against the monitoring requirements and those parameters prescribed in the EIMP in the annual report required under condition 11. Performance against the monitoring requirements to be included in the annual report must be verified by an independent expert, agreed to by the Department.

General

- 44) If the Minister believes that it is necessary or desirable for the better protection of relevant listed threatened species and ecological communities, listed migratory species or the marine environment, the Minister may request that Gunns Limited make specified revisions to the EIMP. Gunns Limited must comply with any such request as soon as practicable but at least within 20 business days, unless otherwise agreed by the Minister. If the Minister approves a revised EIMP pursuant to this condition, Gunns Limited must implement that EIMP instead of that previously approved.
- 45) If, at any time after five years from the date of this approval, the Minister notifies Gunns Limited in writing that the Minister is not satisfied that there has been substantial commencement of construction of the pulp mill, then this approval lapses and the action must not thereafter be commenced.
- 46) Upon the direction of the Department, Gunns Limited must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Department. The independent auditor must be approved by the Department prior to the commencement of the audit. Audit criteria must be agreed to by the Department and the audit report must address the criteria to the satisfaction of the Department.
- 47) Gunns Limited shall, upon becoming aware of any breach or anticipated breach of any condition herein, notify the Department and, where such breach is able to be rectified, immediately rectify it. The Department shall, upon it being aware of any breach, immediately notify Gunns and, in the event of such breach being able to be rectified, direct that it be rectified and Gunns Limited shall comply with that direction.
- 48) Notwithstanding any condition herein, in the event of any of these conditions being breached, Gunns limited will be liable to such penalties as are prescribed in the Act.

Definitions

The Act is the *Environment Protection and Biodiversity Conservation Act 1999*.

Construction includes any preparatory works required to be undertaken including clearing vegetation, the disturbance of any soil, the erection of any temporary or permanent building, and the use of construction or excavation equipment on site for the purpose of breaking the ground.

Commissioning is when construction activities of the pulp mill have been concluded and the pulp mill is commencing a start-up.

EIMP is the Environmental Impact Management Plan developed to manage, monitor and respond to impacts on matters of national environmental significance defined as controlling provisions for this action under the *Environment Protection and Biodiversity Conservation Act 1999*.

Maximum limits are levels of specified parameters in a specified medium (such as effluent discharge or benthic sediment) that must not be exceeded in order to ensure protection of the matters of national environmental significance defined as controlling provisions for this action under the *Environment Protection and Biodiversity Conservation Act 1999*.

Trigger levels are levels of specified parameters that, when reached, require the implementation of a response strategy within a specified timeframe as agreed by the Minister. Trigger levels will be below any maximum limits that are relevant to the trigger levels in question.

Response strategies are agreed actions with the objective of reversing the environmental impact within a specified timeframe.

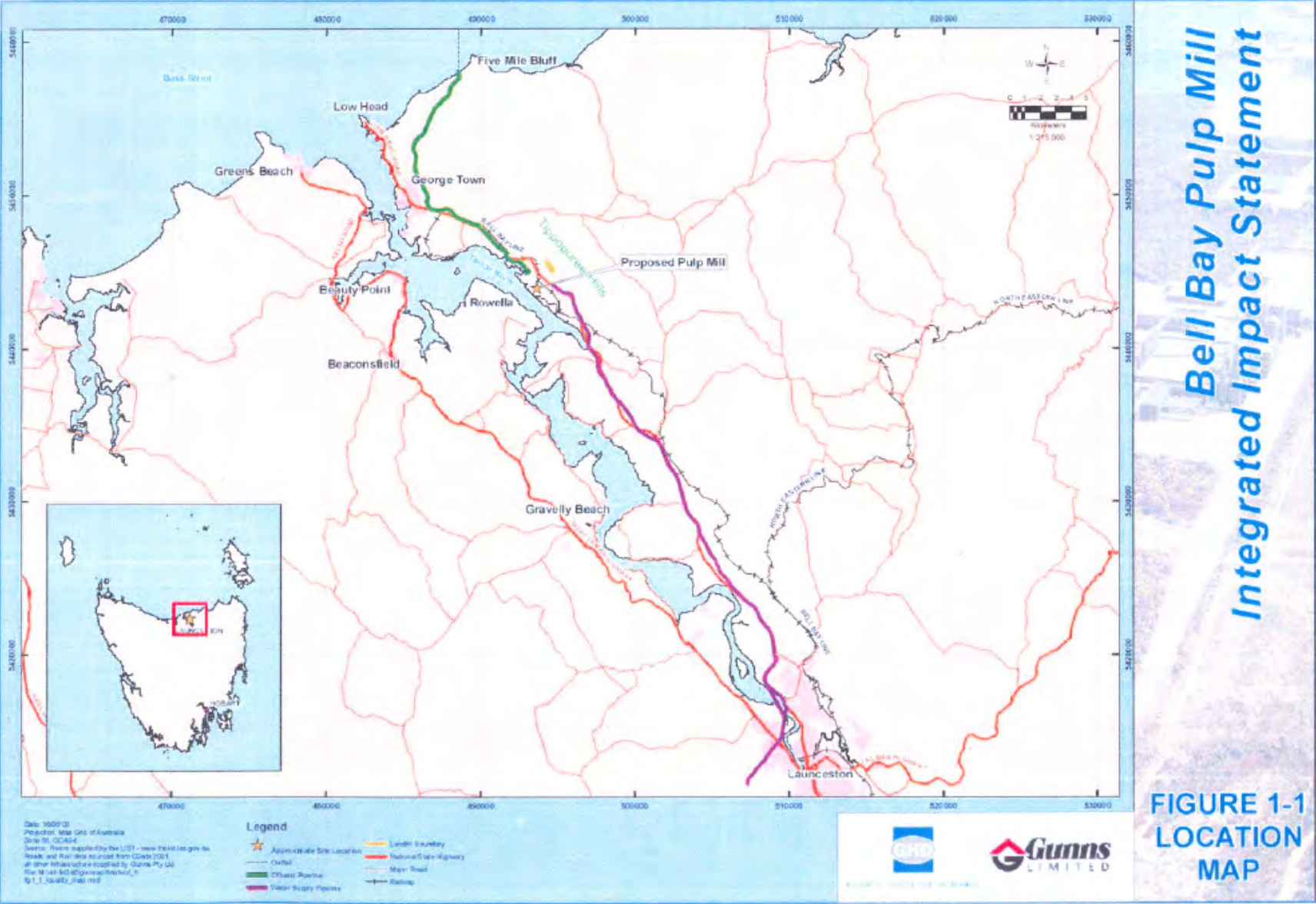
Tertiary Treatment Solution⁶ is the advanced treatment process, following secondary treatment of effluent, that produces high-quality water. Tertiary treatment includes removal of nutrients and practically all suspended and organic matter from waste water. In the context of this approval, a tertiary treatment solution satisfactory to the Minister means a process for the treatment of effluent prior to its discharge to the environment which has the consequence of ensuring that such effluent is constituted such that no breach of the effluent discharge limits in condition 32 above nor any adverse impacts on the Commonwealth marine area are possible.

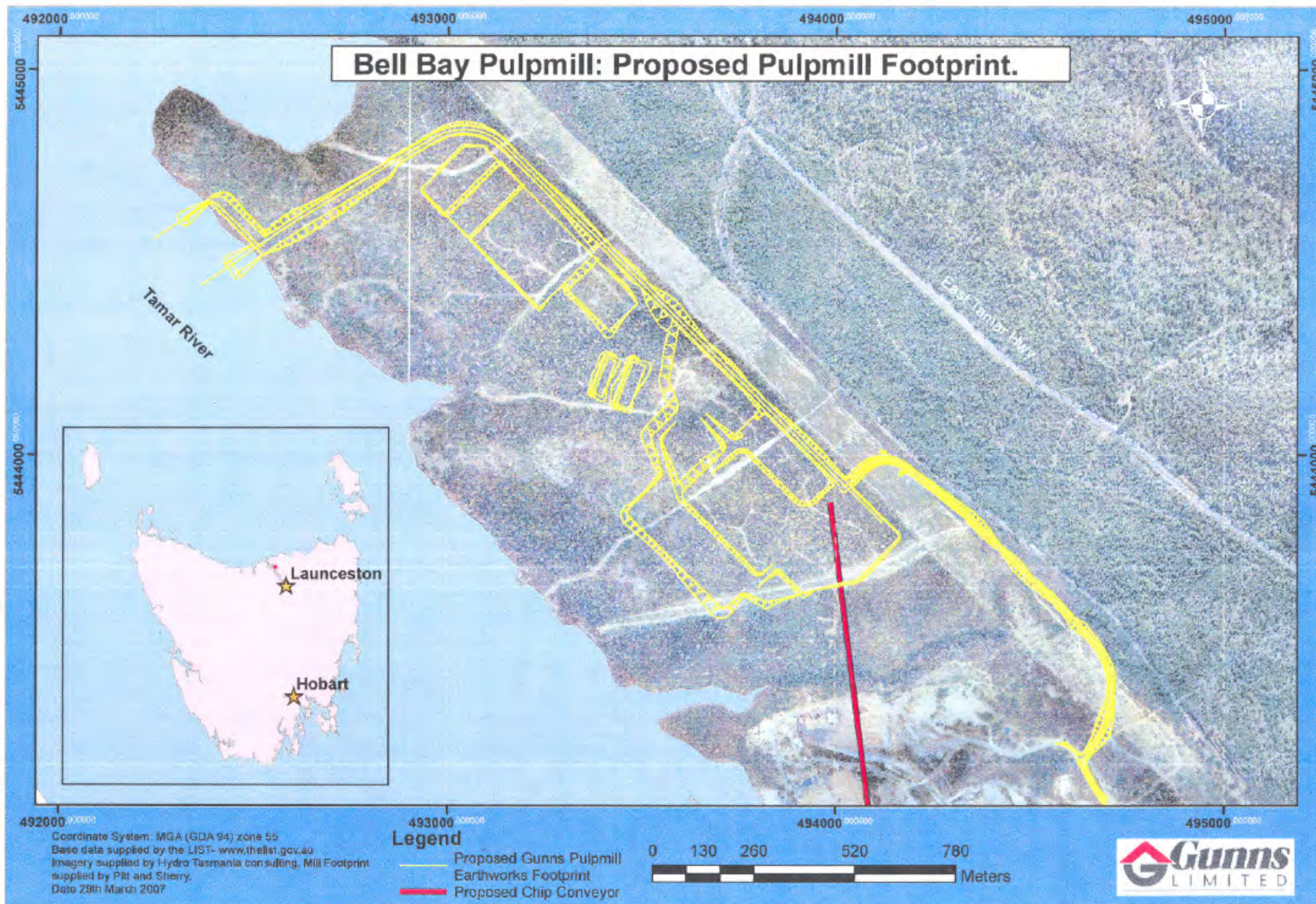
The Minister is the Australian Government Minister who administers the *Environment Protection and Biodiversity Conservation Act 1999*.

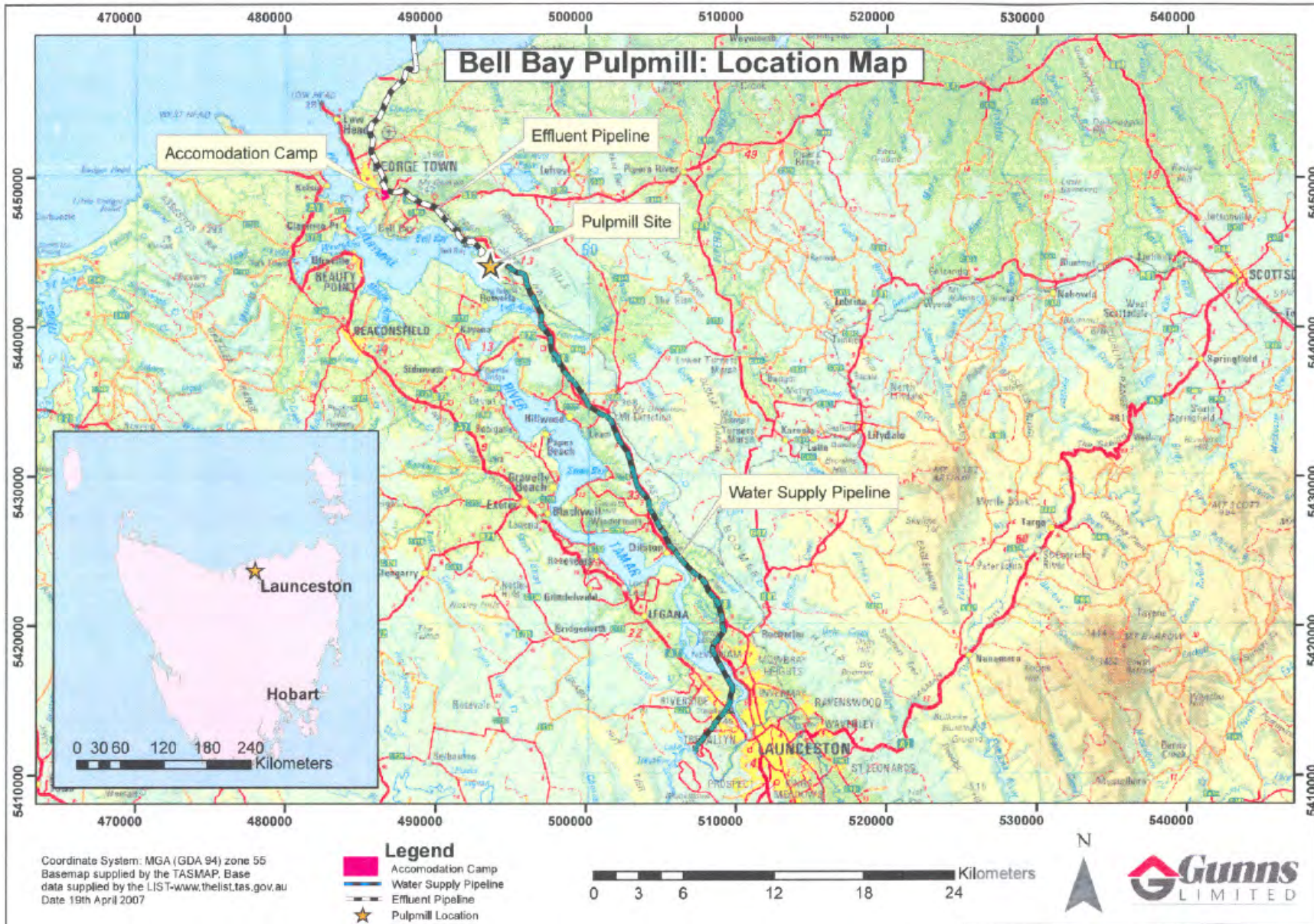
The Department is the Australian Government Department responsible for the *Environment Protection and Biodiversity Conservation Act 1999*.

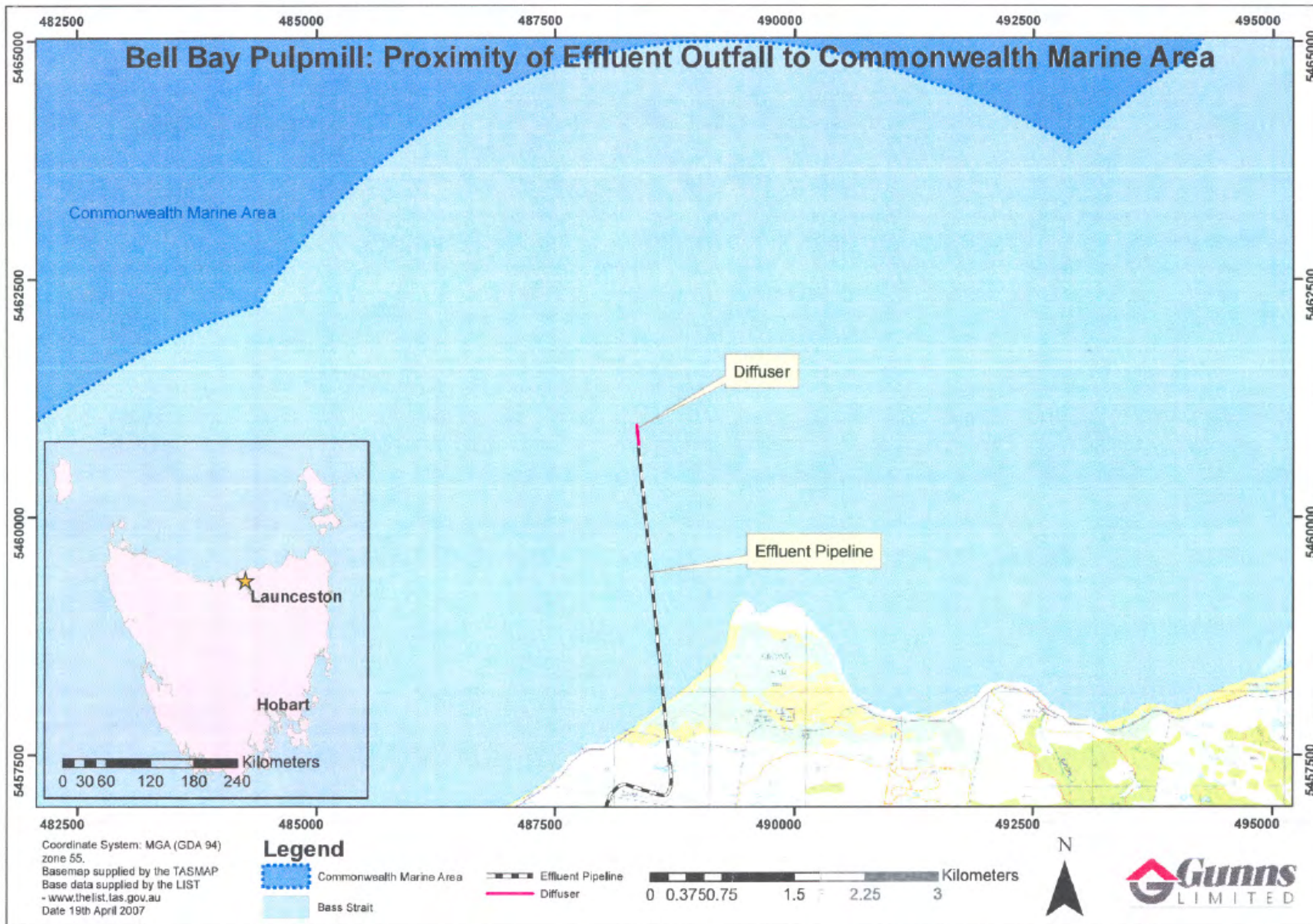
⁶ Taken from the OECD Glossary based on *Glossary of Environment Statistics*, Studies in Methods, Series F, No. 67, United Nations, New York, 1997.

Schedule 1 – Site Maps of the Proposed Action









Schedule 2 – Environmental Impact Management Plan (EIMP) Outline

This Schedule details the elements of the EIMP that are required to address the management strategies, responses and actions that will be undertaken by Gunns Limited to ensure no unacceptable impacts on matters of national environmental significance as a result of the Bell Bay pulp mill proposal. The EIMP must include, but is not necessarily limited to, these elements.

The EIMP must reflect the various commitments made by Gunns Limited both in its preliminary documentation prepared pursuant to section 95 of the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) as well as its response to public comments prepared pursuant to section 95B of the EPBC Act.

The EIMP must also address issues and concerns raised by the Department of the Environment and Water Resources in its Recommendation Report on the proposed action prepared pursuant to section 95C of the EPBC Act as well as those matters raised by the Chief Scientist of Australia in his report to the Minister for the Environment and Water Resources on the scientific aspects of the proposal.

The EIMP must also address all the matters and requirements set out in Annexure 1 of this approval.

The EIMP must set out specific issues to be considered and specific measures to be undertaken at each of the key preliminary phases of taking of the action. These are:

- a. Pre-construction;
- b. Construction; and
- c. Pre-commissioning.

In addition, the EIMP must detail the arrangements for environmental management once the pulp mill is operational. These include:

- a. Ongoing monitoring; and
- b. The development of remedial and response strategies if monitoring shows trigger levels are likely to be exceeded or maximum target levels are to be reached.

The outline required for the EIMP follows.

OVERVIEW:

The plan must include but not necessarily be limited to:

- a. A description of the proposal and associated infrastructure;
- b. Identification of clear environmental objectives;
- c. Identification of environmental indicators, and translation of objectives into agreed targets and performance measures;
- d. Design and implementation of an appropriate monitoring program;
- e. Identification of, and commitment to, agreed trigger or response levels for key indicators; and

- f. Identification of specific remedial management responses to be undertaken when trigger point levels are exceeded, so as to ensure environmental targets and objectives will be achieved.

PRE-CONSTRUCTION:

The EIMP must address the management of all issues associated with listed threatened and migratory species, including:

- a. Management of impacts on the Wedge-tailed Eagle – Tasmanian;
- b. Management of risks to listed flora from plant pathogens;
- c. Management of risks and uncertainties associated with the non-detection of listed flora;
- d. Management of risks associated with the decline of difficult-to-detect listed flora;
- e. Management of risks associated with the decline of *Xanthorrhoea* aff. *Bracteata*;
- f. Management of risks associated with the amphibian chytrid fungus *Batrachochytrium dendrobatidis*;
- g. Management of risks associated with trenching;
- h. Mitigation of impacts on the pipeline corridors;
- i. Establishment of baseline surveys for roadkill;
- j. Undertaking appropriate surveys and establishing mitigation measures for impacts on listed migratory birds;
- k. Undertaking appropriate examination of likely impacts of pile-driving noise associated with the wharf construction;
- l. Establishing baseline levels of vessel strike in the region;
- m. Monitoring the baseline levels of contaminants in listed species;
- n. Developing rehabilitation and offset plans for listed threatened species; and
- o. Establishing measures for habitat protection.

CONSTRUCTION:

The EIMP must address the management of all issues likely to impact on the relevant matters of national environmental significance during the construction phase, including:

- a. Management of risks associated with the amphibian chytrid fungus;
- b. Management of risks associated with roadkill;
- c. Management of pile-driving noise;
- d. Development of strategies to minimise vessel strike;
- e. Appropriate strategies to minimise impacts on listed migratory birds;
- f. Strategies to ensure no increase in the levels of contaminants in listed species; and
- g. Management of risks associated with listed crayfish.

PRE-COMMISSIONING:

The EIMP must address the management of all issues associated with protection of the Commonwealth marine environment, including:

- a. Toxicity testing of Elemental Chlorine Free mill effluents;
- b. Studies to establish the properties affecting fate of fine particulate organic matter in effluent;
- c. Establish both maximum limits and trigger levels of pollutants in effluent discharge, in the receiving environment and in sentinel biota;
- d. Measurement of background contaminants in sediments and biota;
- e. Background ecological surveys;
- f. Improved modelling (hydrodynamic and sediment) of fate and impact of effluent; and
- g. Design of the monitoring program for marine effluent;

ONGOING MONITORING:

The EIMP must establish the design and measures to implement an appropriate monitoring program to ensure there are no unacceptable impacts on matters of national environmental significance as a result of the action. The monitoring program must also identify and measure agreed trigger or response levels for key indicators. Monitoring should include:

- a. Effluent monitoring;
- b. Continuous monitoring of the effluent plume and its dispersion;
- c. Sediment quality monitoring;
- d. Sentinel biota monitoring; and
- e. Ecological surveys.

REMEDIAL AND RESPONSE STRATEGIES:

The EIMP must identify specific remedial management responses to be undertaken when trigger levels are exceeded or maximum limits are reached, so as to ensure no unacceptable environmental impacts on matters of national environmental significance. If necessary, remedial changes could include retrofitting of new technology, for example tertiary treatment of the effluent.

It must be an operational objective of the pulp mill that trigger points, and maximum limits, are not to be reached.