

These tables set out the operational controls required to achieve the objectives and targets set out in Environmental Program 11 Flora and Fauna Management.

BBA will, as a minimum, implement the control activities and performance measures set out below.

Table OCO 1.1	Erosion and Sediment Control
Table OCO 2.1	Soil and Water Management
Table OCO 5.1	Site Preparation and Rehabilitation
Table OCO 6.1	Fire Management Strategy
Table OCO 8.1	Air Quality Management
Table OCO 10.1	Noise and Vibration Control
Table OCO 11.1	Flora and Fauna Management
Table OCO 12.1	Weed and Pathogen Management
Table OCO 15.1	Light Escape Control

Table OCO 11.1 Flora and Fauna Management

Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
INDUCTION AND TRAINING							
1.	Design Consultant briefing	CEMP 10	The Design Consultants will be briefed on the design aspects of this Control Document	Design Director	Prior to start of design.	Briefing record	
2.	Project and site induction	CEMP 13	All employees, consultants and subcontractors involved will be inducted into the environmental aspects and controls related to this Control Document.	Construction Director or Project Manager, as applicable Start up Manager for Early Works	Prior to personnel commencing work on site	Induction records	
3.	Staff Construction Environmental Management Plan induction	CEMP 13	All relevant staff will be inducted into the requirements of the Construction Environmental Management Plan and all associated documents.	Construction Director or Project Manager, as applicable	Prior to staff commencing work on site	Induction records	

Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
4.	Awareness training	CEMP 13 CEMP 14 TS1 5	<p>Conduct awareness instruction of relevant BBA staff, contractors and field personnel. Objectives of Flora and Fauna Management awareness training include:</p> <ul style="list-style-type: none"> • Matters requiring protection. • Risk of encountering unexpected matters. • Fauna handling. • Fauna and flora hygiene. <p>Which include the following management conditions</p> <ul style="list-style-type: none"> • No domestic dogs to be allowed within the area of any construction areas. • Machinery must be checked for the presence of native wildlife prior to start-up. • Removal of refuse from construction areas. • No feeding of native wildlife. • Fires must not be deliberately lit within construction areas. • Reduction in speed of vehicle movements between dusk and dawn within construction areas. • • practicable. 	Project Manager	As per Training Plan	Training records	
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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
4.	Awareness training continued	TS1 1,2 NC1 1,2 TS1 3 NC1 20	<ul style="list-style-type: none"> Fauna encountered during clearing activities not to be unduly stressed and provided opportunities to escape into surrounding native vegetation. Fauna unable to disperse or in distress to be managed in accordance with Fauna Management Guidelines. Vehicle tracks through native vegetation to be kept to the minimum width and to avoid sensitive sites. No species of whales, dolphins, seals or turtles are to be taken. No threatened species, protected and specially protected wildlife is to be taken after the commissioning of the mill. A copy of the pulp mill permit must be maintained on site. 				
5.	Briefings	CEMP 13 CEMP 14	Environmental briefings shall emphasize site-specific control requirements.	General Superintendent	Prior to working in a specific area	Record of Briefing. (eg SEP Briefing)	
PRE-CONSTRUCTION							
6.	Flora and Fauna surveys	LU1 2VG 4.1 TS1 7,8,36 NC1 7	Pre-construction flora and fauna surveys must be conducted on all areas not previously surveyed by suitably qualified persons. Provide results to DPIW.	Environmental Manager	Survey conducted and report submitted prior to construction commencement within that area	Survey report	

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
7.	Bird nest surveys	LU3 FN1.1 TS1 40,41 NC1 10,11	Pre-construction surveys must be conducted within all construction areas for nests of the wedge-tailed eagle, white bellied sea eagle, masked owl, swift parrot and peregrine falcon. Provide results to DPIW.	Environmental Manager	Prior to construction commencement within that area	Survey report	
8.	Bird nest activity inspections	TS1 42,44 NC1 12,13	If a nest is located as a result of the pre-construction nest surveys, activity inspections must be conducted during the following months: <ul style="list-style-type: none"> Eagles: Aug – Feb Swift parrot:: Sept– Dec Masked owl: Aug – Jan Provide results to DPIW and develop management measures.	Environmental Manager	If nest found	Inspection report	
9.	Eagle nest #130	EPBC 15 (a)	Conduct annual nest activity inspections of nest #130 in the second week of September and November. Provide results to DEWHA and DPIW.	Environmental Manager	Annual	Inspection report	
10.	Mammal den surveys	LU1 2FN 1.1 TS1 45,46 NC1 14,15	Pre-construction surveys must be conducted within all construction areas for Dens of the Tasmanian devil, spotted-tailed quoll and common wombat. Provide results to DPIW.	Environmental Manager	Prior to construction commencement within that area	Survey report	
11.	Mammal den activity inspection	TS1 47,48 NC1 16,17	If a den is located as a result of pre-construction surveys, a follow-up survey must be conducted a week prior to the commencement of construction activities. Provide results to DPIW and develop management measures.	Environmental Manager	If den found		

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
12.	Burrowing crayfish		A survey must be conducted to determine the potential presence of the central north burrowing crayfish and Mt Arthur burrowing crayfish.	Environmental Manager	Prior to construction commencing	Survey report	
13.	Shorebird survey		Pre-construction surveys of the shoreline for breeding shorebirds must be undertaken 200 m either side of the effluent pipeline corridor. Located nests to be clearly marked and managed.	Environmental Manager	Prior to construction commencement at the outfall	Survey report	
14.	Xanthorrhoea survey		Pre-construction surveys must be conducted on the effluent pipeline to survey the extent of and delineate the extent of <i>Xanthorrhoea aff. bracteata</i> .	Environmental Manager	Prior to construction commencement at the outfall	Survey report	
15.	EPBC threatened flora surveys		Pre-construction surveys must be conducted within areas of potential habitat at the appropriate times for the <i>Prasophyllum secutum</i> , <i>Caladenia caudata</i> , <i>Epacris exserta</i> and <i>Glycine latrobeana</i> . Provide report to DEWHA.	Environmental Manager	Prior to construction commencement within that area	Survey report	
16.	Tasmanian threatened flora surveys	TS1 54	Pre-construction surveys of the chip mill site, in particular the new conveyor belt location, must be conducted during the specified months for the following species: <i>Aphelia pumilio</i> : Oct – Dec <i>Hypoxis vaginata</i> : Sept-Oct <i>Stylidium despectum</i> : Oct – Dec <i>Stylidium inundatum</i> : July – Nov <i>Veronica plebia</i> : Sept - April	Environmental Manager	Prior to construction during the specified months	Survey report	
17.							
18.	Gunns screw shell survey	TS1 51,52	A pre-construction survey for Gunns screw shell (<i>Gazameda gunnii</i>) must be conducted prior to marine construction activities according to the methodology described in Table 5.	Environmental Manager	Prior to construction commencement of wharf and outfall	Survey reports	

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
19.	Roadkill survey	EPBC 26	A baseline roadkill monitoring program will be implemented	Environmental Manager	Following EPBC approval	Program implemented	
20.	Establish photo points	LU1, Part 3, Sect 2, 2DR1.2, pg 76, (Seq pg 89) LU3, Part 3, RH1.2, pg 36, (Seq pg 275) LU4, Part 3, RH1.2, pg 37, (Seq pg 326)	Establish photo points for monitoring sites where significant values have been identified, and where these significant values (including threatened flora and habitat of threatened fauna) will be retained and protected or rehabilitated following disturbance.	Environmental Manager	Prior to vegetation clearing commencing.	Sites identified	
21.	Delineate all construction areas	EPBC 20(b) LU1 2VG 3.1 LU3 VG 2.1	Inspect 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	Prior to vegetation clearing commencing	Sites delineated	
22.	Identify sensitive areas	Project requirement	Identify from available documentation, maps and plans, all construction areas and their respective land use and significance (i.e. pasture or native vegetation, threatened species locations etc). Note that not all sensitive areas will be retained and/or protected.	Environmental Manager	Prior to vegetation clearing commencing	Sites identified	
23.	Delineate sensitive areas	EPBC 20(b) TS1 14	Delineate all sensitive areas which are to be retained and protected with proximity to construction areas with flagging tape (other flagging options will include delineator rope or electric fencing tape)	Environmental Manager	Prior to vegetation clearing commencing	Sites delineated	

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
24.	Identify sensitive sites	Project requirement	Inspect all trees for nest sites particularly trees containing hollows within the construction areas for signs of use by bird species. Management options for potential nest sites will be determined in consultation with appropriate authorities (where required) and/or relevant personnel.	Environmental Manager	Prior to vegetation clearing commencing	Sites identified/ Inspection records	
25.	Threatened flora sensitive sites	TS1 55,56	Identify and avoid all populations of <i>Chorizandra enodis</i> , <i>Xanthorrhoea arenaria</i> and <i>Xanthorrhoea bracteata</i> .	Environmental Manager	Prior to vegetation clearing commencing.	Sites identified and delineated	
26.	Identify and avoid green and gold frog habitat	EPBC 20b	Identify and avoid through micro-siting of the pipeline route all areas of identified habitat for the green and gold frog.	Environmental Manager	Prior to vegetation clearing commencing.	Sites identified and delineated.	
27.	Fauna hygiene	Project requirement	Interview/discuss with landowners potential presence of livestock diseases or concerns on or adjacent to their property. Document results and determine appropriate quarantine methodology.	Environmental Manager	During preliminary site access discussions with landowners	Record of discussion and results	

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
28.	Vessel quarantine controls	LU1, Part 3, Sect 3, 3MR4.2, pg 134, (Seq pg 147) LU3, Part 3, TM1.2, pg 27, (Seq pg 266) LU4, Part 3, TM1.2, pg 28, (Seq pg 317) EM1, FN12.2, pg 17, (Seq pg 358)	All vessels arriving in Australian waters from overseas will meet relevant quarantine controls, guided by the AQIS Maritime Awareness Kit. The provisions of the National System for the Prevention and Management of Marine Pest Incursions: Ballast Water Management Arrangements (June 2006) and the National Biofouling Management Guidelines for Non-Trading Vessels (December 2007) will be implemented. The relevant requirement for ship registration numbers and histories will be presented in the Wharf Management Plan, Tamar Crossing Management Plan, and Effluent Outfall Management Plan	Project Manager	Prior to vessel arriving in Australian waters from overseas	Risk assessment and controls to AQIS requirements	
29.	Marine mammals and turtles during marine work	LU1, Part 3, Sect 3, 3MR6.1, pg 135, (Seq pg 148)	During construction activities involving marine work, a person(s) will be allocated responsibility for maintaining a visual watch for marine mammals and turtles. Response to sightings will follow the guidelines described in Table 1.	General Superintendent	During construction activities involving marine work	Inspection records	
30.	Marine mammals and turtles during vessel movements	LU1, Part 3, Sect 3, 3MR6.1, pg 135, (Seq pg 148)	Vessels will follow marine mammal and turtle response guidelines also described in Table 1.	Project Manager	Prior to vessel arriving in project area	Record of instruction	
31.	Desktop study of underwater noise	EPBC 29(a) EPBC 30	A desktop study of likely underwater noise impacts on the Australian Grayling and listed threatened and migratory marine species must be undertaken prior to wharf construction	Environmental Manager	Prior to wharf and outfall construction	Study reports	

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Ref.	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
32.	Powerline spacing	LU1 FN 6.1	The spacing of the conductors, return line and earth wire on all overhead powerlines must be greater than 1.59 metres.	Design Manager	Design phase	Design outcome	

CONSTRUCTION							
Minimisation of disturbance							
33.	Remain within construction boundaries	LU1, Part 2, 2.1, pg 6, (Seq pg 19) LU1, Part 2, 2.21, pg 15, (Seq pg 28) LU1, Part 3, Sect 2, 2VG1.1, pg 72, (Seq pg 85) LU1, Part 3, Sect 2, 2VG3.2, pg 73, (Seq pg 86) LU1, Part 3, Sect 5, 5VG4.1, pg 155, (Seq pg 168) LU1, Part 3, Sect 6, 6VG4.1, pg 164, (Seq pg 177) LU3, Part 3, VG6.1, pg 32, (Seq pg 271) LU4, Part 3, VG6.1, pg 33, (Seq pg 322) EM1, CN7.1, pg 8, (Seq pg 349) LU3 VG 2.2 TS1 13,15 EPBC 20	All construction activities and materials will remain within the delineated construction boundaries. Vegetation (including root zones) outside the construction area must not be damaged, including by the pushing of debris, soil etc.	General Superintendent	Ongoing	Monthly report	

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34.	Minimise vegetation clearance	Project requirement LU1 2VG 2.1 LU3 2VG 1.1 LU3 VG 3.1 TS1 12,33 NC1 3	Vegetation clearance will be minimised to that necessary to achieve minimal soil erosion and sedimentation, reduce impacts to visual amenity and agricultural capacity, avoid or reduce impacts to fauna habitat, threatened fauna, specially protected and protected wildlife and threatened flora; and hollow bearing trees prevent cultural heritage impacts, and risk of weed establishment. The removal of felled coarse wood debris in sites to be rehabilitated must be minimised.	General Superintendent	Ongoing	Monthly report	
35.	Vegetation sampling	TS1 23,24,25,21	The Tasmanian Herbarium and the Royal Tasmanian Botanical Gardens to be consulted regarding requirements for specimens of threatened flora species. Collection methodology to be provided by the relevant agency. All standing vegetative matter and reproductive organs of threatened species in locations to be cleared may be collected.	General Superintendent	Vegetation clearing; lodged within 90 days of completion of pre-construction surveys.	Vegetation collection report	
36.	Vegetation under power lines	LU1 2FN 8.1	Where practicable [and in consultation with the utility owner], retain vegetation less than 1.65 m in height beneath power lines.	General Superintendent	Vegetation clearing	Vegetation inspections	

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37.	Fauna protection during trenching	LU1, Part 3, Sect 5, 5FN4.1, pg 154, (Seq pg 167) LU1, Part 3, Sect 6, 6FN4.1, pg 163, (Seq pg 176) LU3, Part 3, FN6.1,7.1,8.1, pg 31, (Seq pg 270) LU4, Part 3, FN8.1, pg 33, (Seq pg 322) EPBC 19	Trenches will be kept open for a minimal period to conduct works. Trench plugs and ramps at slopes of no greater than 50 percent will be placed at regular intervals to enable trapped fauna to escape from trenches. Pipe ends will be blocked off at night. All sections of open trench must be monitored daily for trapped animals. Only trained personnel may remove fauna from trenches. Fauna management guidelines are detailed in Table 1.	General Superintendent	Ongoing	Monthly report	
38.	Eel management		If practicable, the water intake from Lake Trevallyn must include an effective screen or similar to prevent eels entering the pipeline.	General Superintendent	During installation of the pipeline at Lake Trevallyn	Report	
39.	No dogs	TS1 5 NC1 19	Dogs must not be present at any time on construction sites.	General Superintendent	Ongoing	Inspection records	
40.	Minimise risk of disease/parasite spread from adjacent properties	Project requirement	No employees, other than a trained fauna handler, may touch or handle any domesticated animals. Gates will be left as found to prevent unauthorised livestock movements. Any unintentional livestock movements, e.g. through fences or gates, will be reported immediately to the Environmental Manager who will seek landowner advice for management.	General Superintendent	Ongoing	Monthly report	

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41.	Eagles nests	LU1 2FN 9.1 LU3 FN 3.1 EPBC 14(a), (c) TS1 43	During the period between 1 August and 1 February construction activities 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, DTAE and the secretary, DPIW.	General Superintendent	Ongoing	Inspection records	
42.	Identify previously unknown eagle nest sites	TS1 40 NC1 10 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 DPIW. 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 and DPIW notified immediately.	General Superintendent	Ongoing	New site notification	
43.	Eagle nest #130	EPBC 15(c)	Should nest #130 be abandoned during construction or in the first breeding season after the commencement of construction, an offset strategy will be prepared within 6 months for approval.	Environmental Manager	If nest #130 presently occupied but subsequently abandoned	Offset Strategy	
44.	Powerline inspections	LU1 2FN 7.1	Inspect power lines for nesting material and [in consultation with the utility owner] remove any nesting material that is observed to be present.	Site Environmental Officer	Weekly	Inspection records	

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45.	Check hollows in trees before clearing	Project requirement	Prior to felling large trees, and where able, check any tree hollows for fauna and allow them to move away from the clearing area.	General Superintendent	Ongoing	Fauna observation records	
46.	Frog relocations	TS1 49	<p>If the striped marsh frog (<i>Limnodynastes peronii</i>) is located and can not be avoided, individuals must, where practicable, be relocated using measures outlined as follows:</p> <ul style="list-style-type: none"> a) Individuals should be collected and placed in an appropriate container/bag for relocation. b) Individuals should be relocated to a location nearby providing similar habitat appropriate for that species. c) Numbers and location of individuals relocated must be recorded. d) Hygiene protocols for control of chytrid fungus must be followed in accordance with <i>Frog Disease - Chytrid Fungus - Information for Researchers</i>, DPIW 2004. e) The time taken for relocation must, where practicable be kept to a minimum. <p>A report outlining the potential relocation must be submitted to the DPIW Secretary prior to the commencement of construction activities.</p>	Environmental Manager	If species found	Relocation report	
47.	Post-construction threatened flora surveys	TS1 9,10	Post-construction threatened flora surveys must be undertaken by qualified persons to determine the number of threatened species taken.	Environmental Manager	Survey undertaken and report submitted within 30 days of the completion of construction activities.	Report	

Earthworks and stripping vegetation

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48.	Plant hygiene	OCO0012	Ensure that all construction machinery and construction activities comply with OCO Weed and Pathogen Management	General Superintendent	Ongoing	Monthly report	
49.	Fauna hygiene	TS1, 49, pg 9, (Seq p 427) EPBC 21	Ensure that all construction equipment, machinery and vehicles comply with washdown procedures between identified properties as per Table 2 and Table 3.	General Superintendent	Ongoing during all construction activities	Monthly report	
50.	Timing of topsoil stripping operations.	Project requirement	As much as possible time topsoil stripping operations when soil is moist, also avoid days when there is the potential for excessive dust movement into retained native vegetation.	General Superintendent	Ongoing during earthworks and clearing	Monthly report	

Erosion and sedimentation management							
51.	Install drainage controls	Project requirement	Manage erosion and sedimentation by minimising clearance and installing appropriate drainage features. All sediment will be retained within the construction zone.	General Superintendent	Initial site preparation	Controls installed	
52.	Minimise exposure time and risk to fauna species.	Project requirement	Minimise the time period between excavation and backfilling operations	General Superintendent	Ongoing	Monthly report	
53.	Incident reporting	HSE Reporting System	Each instance of non-compliance with this OC shall be reported as an incident in the Health Safety Environment (HSE) Reporting system and appropriate corrective action taken.	General Superintendent	Ongoing	Incident reports	

INCIDENTS							
54.	Potential environmental harm	CEMP incident response procedures	<p>Class 1: <i>An actual adverse effect on the health or safety of human beings that is of a high impact or on a wide scale; an actual adverse effect on the environment that is of a high impact or on a wide scale; an actual loss or property damage of an amount, or amounts in aggregate, exceeding ten times the threshold amount (\$5,000); an environmental nuisance of a high impact or on a wide scale; an actual adverse effect on the health or safety of human beings that is not negligible; an actual adverse effect on the environment that is not negligible - cease relevant activities across all sites until the problem is fully understood and rectified; follow incident response procedures</i></p> <p>Class 2: <i>The emission of a pollutant that unreasonably interferes with, or is likely to unreasonably interfere with, a person's enjoyment of the environment; any emission specified in an environment protection policy to be an environmental nuisance; an actual loss or property damage of an amount, or amounts in aggregate, exceeding the threshold amount (\$5,000) - cease relevant activities at the site of occurrence until the problem is rectified; follow incident response procedures</i></p>	Environmental Manager	Ongoing	Incident response records	

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55.	Potential permit breach	CEMP incident response procedures	<p>Class A: <i>A permit condition has been breached and either the environmental consequences are significant or the breach is due to a wilful or negligent failure to attempt to satisfy the condition – cease relevant activities across all sites until the problem is fully understood and rectified; follow incident response procedures</i></p> <p>Class B: <i>A permit condition has been technically breached but the intent of the condition has been or will be achieved and environmental consequences of the breach are not significant – cease relevant activities at the site of occurrence until the problem rectified; follow incident response procedures</i></p> <p>Class C: <i>Compliance with the permit has been raised as an issue but the intent and requirements established by the permit condition have been met – examine the significance and potential for corrective action; follow incident response procedures</i></p>	Environmental Manager	Ongoing	Incident response records	
EVALUATING PERFORMANCE							
56.	Monitoring	CEMP 16	Conduct construction monitoring as per BBA-PLN-1000-1400-001H Construction Monitoring Plan and BBA-PLN-1000-1400-0005 Fauna Management Plan	Environmental Manager	Ongoing	Reports	
57.	Inspections	CEMP 16	Inspect the condition of protection and control measures and arrange maintenance, as required.	Site Environmental Officer	Daily	Weekly Checklist	

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58.	Photo record	LU1, Part 3, Sect 2, 2DR1.2, pg 77, (Seq pg 90) LU3, Part 3, RH1.2, pg 36, (Seq pg 275) LU4, Part 3, RH1.2, pg 37, (Seq pg 326)	Assess and record (including photos at established photo points) those areas disturbed during construction that are to be rehabilitated to ensure threatened species propagation, where applicable.	Site Environmental Officer	Monthly	Inspection records	
59.	Reporting	CEMP 17	Report on the implementation of this ENP in the environmental section of the monthly Project Report.	Environmental Manager	Ongoing	Monthly Report	
60.	Survey results reporting	LU1, Part 3, Sect 2, 2FN2.1, pg 71, (Seq pg 84)	Report flora and fauna survey results to Government agencies as described in Table 4	Environmental Manager	Ongoing	Reports	
61.	Assess monitoring results	CEMP 19	Evaluate and assess monitoring results against specified targets.	Environmental Manager	Ongoing	Reports	
62.	Corrective action	CEMP 19	Take corrective action, where required.	Project Manager	As required	Action taken	

Table 1: Guidelines for fauna protection and handling

<p>All Species</p>	<ul style="list-style-type: none"> Trenches should be checked first thing in the morning, at regular intervals during the day, and in the evening once works have concluded for the day. Trenches to include trench ramps and plugs to enable fauna to escape of their own accord. When an animal is noted as trapped, work in the immediate vicinity (ie. 50 m) to stop immediately and the Site Supervisor notified. Fauna trapped in trenches should be removed as soon as possible. No operations are to commence or continue until fauna have been removed. Surviving fauna are to be relocated to a 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. should unduly stress
<p>Native Species</p>	<ul style="list-style-type: none"> Only to be handled by trained personnel, or by untrained personnel under the direct visual supervision of a trained person. Trained personnel may encourage the animal to leave, or physically capture/trap the animal where required. Fauna should be relocated to a safe area of suitable habitat in the vicinity of the trap site. Injured fauna should be captured/trapped and taken to a veterinarian for assessment and treatment, and DPIW should be notified of this. Dead fauna should be removed and buried in an appropriate location. Records must be kept of all live and dead fauna removed from the trench.
<p>Domesticated Species</p>	<ul style="list-style-type: none"> Only to be handled by trained personnel, or by untrained personnel under the direct visual supervision of a trained person. Landowner/owner should be immediately notified of trapped domestic species. Only to be removed in collaboration or under instruction of the landowner/owner. Injured animals should be taken to a veterinarian for assessment and treatment in consultation with landowner/owner. Dead animals should be disposed of in accordance with landowner/owner requirements.
<p>Marine mammals and turtles – shore observers</p>	<ul style="list-style-type: none"> To detect marine mammals and turtles an appropriately qualified observer must keep watch at 10-15 minute intervals within the monitoring zone. The monitoring zone should extend as far as practicable beyond the outer extremities of the alert zone. If marine mammals or turtles are observed within the alert or exclusion zones, the watch should be continuous until those animals leave the zone. If marine mammals or turtles are observed within the alert zone, inform the site supervisor, who should then minimise any work that may cause significant underwater noise until the animal has left the alert zone. If marine mammals or turtles are observed within the exclusion zone, inform the site supervisor, who should then cease any work that may cause significant underwater noise until the animal has left the exclusion zone. Record observations, including date, time first observed, species (if possible), entry and exit times from exclusion and alert zones, and response actions, and report these to Site Environmental Officer at the end of the day. Report any signs of distressed marine mammals or turtles to the BBA Environmental Manager who should contact the Tasmanian whale sightings and strandings hotline (0427 WHALES or 0427 942 537). Zones for whales and dolphins – Monitoring 3km, Alert 2km and Exclusion 1km. Zones for seals and turtles – Monitoring 1.5km, Alert 1km and Exclusion 0.5km.

Marine mammals and turtles - vessels	<ul style="list-style-type: none"> • Keep watch for marine mammals and turtles during approach to work areas • If marine mammals or turtles are observed at a distance greater than 300 m, deviate to avoid a closer approach • If marine mammals or turtles are observed at a distance less than 300 m, reduce speed to less than 8 knots and deviate to avoid closer approach • If marine mammals or turtles are observed at a distance less than 100 m, reduce speed to the slowest speed at which safe control of the vessel is still possible, deviate to avoid and do not increase speed until a separation distance greater than 100 m is achieved (unless vessel safety requirements demand otherwise)
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Table 2: Disinfecting and wash down procedures between properties potentially infected with livestock diseases or parasites.

Procedures for the decontamination of personnel and equipment should be considered as a single and relatively simple operation to cover both livestock and plant diseases and pests, which can be carried out in minimum time.

Step No.	Procedure
1	It is essential to remove the soil and debris from tools, equipment and machinery before decontamination can be carried out.
2	Pressure hosing with water will be sufficient to remove debris from most tools, equipment and machinery.
3	A hard bristle brush, a high pressure washer or steam cleaner may be essential for more difficult stains or soil, paying particular attention to the tyres, tracks and undercarriage of vehicles and machinery.
4	Soiled clothing should be removed for laundering and boots scrubbed clean; hands and other body parts may also need cleaning.
5	Decontamination by spraying on a commercial disinfectant at the recommended strength to the cleaned boots, tools, equipment or machinery will ensure any remaining disease agents or pests are destroyed.

Table 3: Disinfecting hygiene procedures for chytrid fungus

(source: NSW NPWS Threatened Species Management Information Circular No. 6: *Hygiene protocol for the control of disease in frogs*)

Step No.	Procedure
1	As a guiding principle, each individual waterbody should be considered a separate site.
2	Footwear must be thoroughly cleaned and disinfected at the commencement of fieldwork and between each sampling site.
3	Equipment such as nets, balances, callipers, bags, scalpels, headlamps, torches, wetsuits and waders etc that are used at one site must be cleaned and disinfected before reuse at another site.
4	Where necessary, vehicle tyres should be sprayed/flushed with a disinfecting solution in high-risk areas.

5	Frogs should only be handled when necessary.
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Table 4: Reporting requirements

Information	Reporting requirement
Threatened flora and fauna survey data	Data must be provided to the Secretary in an electronic form suitable for entry into the <i>Natural Values Atlas</i> within 90 days of collection. Data must include species name, location information (including grid reference in GDA 94 and location variation in metres), observer name, observation date, number of individuals and area occupied.
Threatened flora and fauna survey pre-construction reports	Reports outlining the findings of pre-construction threatened flora and fauna surveys must be submitted to the Secretary prior to the commencement of construction. Animals noted in distress should be immediately reported to DPIW
Threatened flora and fauna survey post-construction reports	Reports outlining the findings of post-construction threatened flora and fauna surveys and detailing numbers of threatened species, protected and specially protected wildlife taken, must be submitted to the Secretary within 30 days of completion of construction activities for the project
Follow up threatened species den surveys	In areas where dens have been identified, a follow up survey must occur at least one week prior to the commencement of construction activities, to identify those dens that can not be avoided by construction activities. If a den is located as a result of the survey BBA must seek written approval from the DPIW Secretary before any further action that impacts on the identified den can be taken.
Trench fauna records	Records of live and dead fauna removed from trenches must be provided to DEWHA within 3 months of the commencement of trench construction and progressively each month until the trenches have been filled.
Whale, seal or turtle sighting data	Data regarding occurrences of listed threatened cetacean, pinniped, or turtle species or specially protected or protected wildlife must be provided to the DPIW Secretary in an electronic form suitable for entry into the <i>Natural Values Atlas</i> within 90 days of collection. Required data includes species name, location information including grid reference in GDA 94 and location variation in metres, observer name, observation date, number of individuals and area occupied.
Eagle nest #130 inspections	Provide results from the monitoring to the Commonwealth 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).
Vessel numbers and movement history	The number and type of sea going vessels that will be involved in the construction activities and their history of movement for the last twelve months must be reported to the Director of Environmental management prior to their arrival in Tasmanian waters.

Table 5: Methodology for pre-construction survey for Gunns screw shell (*Gazameda gunnii*)

- a) Sampling is to be undertaken within areas of coarse sand (*i.e.* > 1mm particle size), shell-grit and fine gravel occurring in depths of 3 to 80 m.
- b) Sampling is to aim to cover the full depth range of suitable habitat but otherwise be randomly located.
- c) The number of benthic samples to be taken per area of relevant habitat for *G. gunnii* is as follows:

Area of relevant habitat (hectares)	Initial # of samples	Total # of samples if dead <i>G.gunnii</i> in initial samples
< 1	3	6
<5	5	10
<20	10	20
<100	15	30
<1000	20	40

- d) Benthic samples are to be sorted through a maximum sieve size of 4mm.
- e) Dead shells should be retained and confirmed as *G. gunnii*.
- f) Live *G. gunnii* are to be photographed with a good quality macrocamera.
- g) Collected individuals are to be placed in a container of seawater for relocation.
- h) Individuals are to be relocated to a location nearby providing similar habitat including water depth and substrate composition.
- i) Numbers and location of individuals relocated must be recorded.
- j) The time taken for relocation must, where practicable be kept to a minimum.

A report detailing results of the survey must be submitted to the DPIW Secretary within 30 days of completion of construction activities within the marine environment.

Revision Status

Revision	Date	Revision Description	Prepared	Reviewed	Approved
A0	1 May 2007	Draft for BBA review	SW		
A1	9 May 2007	Draft for DTAE review	IW		
B1	22 October 2007	Revised for submission to DTAE following auditor's comments	IW	JD	JC
B3	18 January 2008	Revised following DPIW comments	YE		
B4	24 January 2008	Revised following finalisation of the Fauna Management Plan	SW	JD	CF