Den Management Plan

Stage 1 – North West Transmission Developments Project

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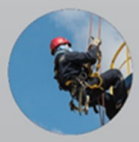

TASMANIAN
PLANNING COMMISSION

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Document history

Current document authoriser

Title	Name
General Manager – Major Projects Transmission	Craig Gosney

Revision history

Rev	Date	Author	Authoriser	Details of Amendment
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0.5	29/06/2026	GHD	Craig Gosney	Responding to further regulator comments (TPC/DCCEEW)

Declaration of accuracy

I Richard Sheather in my position at TasNetworks as Project Director designate Genus Infrastructure (NSW) Pty Ltd (Genus) to prepare, manage and implement the Den Management Plan on my behalf.

In making this declaration, I am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed:	
Full name:	Richard Sheather
Position:	Project Director
Organisation:	TasNetworks
Date:	

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1. Introduction

1.1 Purpose

The purpose of this Den Management Plan (DMP) is to set out the specific commitments, procedures and controls that will be implemented to avoid, minimise and manage potential impacts to active and potential dens of the Tasmanian devil (*Sarcophilus harrisii*), spotted-tailed quoll (*Dasyurus maculatus maculatus*) and Eastern quoll (*Dasyurus viverrinus*) associated with construction of the North West Transmission Developments (NWTD) Project (the Project).

The DMP sets out the site-specific management measures, controls, monitoring and adaptive management processes to ensure that den management requirements are clearly documented, auditable and consistently applied across all relevant Project activities.

This DMP is an appendix to the Flora and Fauna Management Subplan (FFMSP), a supporting environmental management plan prepared under, and to be implemented in conjunction with, the Construction Environmental Management Plan (CEMP) for the Project.

1.2 Project description

The Project involves upgrades and augmentation of the existing electricity transmission network in north west Tasmania. The Project is being delivered to support increased renewable energy generation and improve network capacity, including enabling connection to the proposed Marinus Link.

This Den Management Plan applies to Stage 1 of the NWTD, which includes works between Palmerston, Sheffield and Burnie, and the Heybridge spur.

The Project description is set out in detail in Section 2 of the CEMP and summarised from Section 1.1 of the CEMP as follows:

- Construction of new double-circuit 220 kV OHTLs, from PM Substation to SH Substation and from SH Substation to BU Substation.
- Construction of a new double circuit 220 kV OHTL from the new SH to BU OHTL in the Stowport area to a new switching station at Heybridge (HB), also referred to as HB Spur East or HB Spur.
- Upgrading existing access tracks, and construction of new access tracks.
- Establishing winch and brake sites, laydown areas, tower assembly areas and associated site facilities.
- Upgrades to the existing Palmerston, Sheffield and Burnie substations.
- Dismantling and removal of the existing single-circuit 220 kV OHTLs between PM and SH substations and SH and BU substations.
- Modification of two sections of the existing 110 kV OHTL between Sheffield and Burnie, including relocating and replacing towers with poles.
- Undergrounding sections of the 22 kV overhead distribution network where the proposed 220 kV OHTLs cross 22kV distribution lines.

Construction activities will include pre-construction surveys and site establishment, vegetation clearing, earthworks, tower foundation construction, tower erection, conductor stringing (including helicopter use), and site rehabilitation.

The Project is located across multiple local government areas in north west Tasmania, including the Northern Midlands, Meander Valley, Kentish, Central Coast and Burnie municipalities.

This Den Management Plan applies to construction-phase activities only and is implemented in conjunction with the CEMP and FFMSP, which provide the overarching environmental management framework for the Project.

1.3 Regulatory Framework and approvals

The listing status for the Tasmanian devil *(Sarcophilus harrisii),* Spotted-tailed quoll *(Dasyurus maculatus subsp. maculatus)* and Eastern quoll *(Dasyurus viverrinus)* is as follows:

	EPBC Act status	**TSP Act status**
Tasmanian Devil	Endangered	Endangered
Spotted-tailed quoll	Vulnerable	Rare
Eastern Quoll	Endangered	Not listed

As these species are listed under the EPBC Act, they are considered protected matters or Matters of National Environmental Significance (MNES) for the purposes of that Act. If den decommissioning is necessary, permits may be required under the Nature Conservation (Wildlife) Regulations 2021 (Tas) and the *Threatened Species Protection Act 1999* (Tas).

1.4 Condition and requirement mapping

The tables below summarise the EPBC Act and MIDA Act permit conditions and their requirements, noting where in this plan they are addressed.

Table 1 EPBC Act approval conditions and response

EPBC Act condition	Summary of condition requirement	DMP section / table	Evidence
5	All commitments made in plans, including environmental outcomes, management measures, corrective measures, trigger values and performance indicators must be SMART and based on referenced or included evidence of effectiveness. All plans must be consistent with the Environment Management Plan Guidelines, and must include: a) Details of the relevant protected matters and a reference to the EPBC Act approval condition(s) to which the plan refers; b) A table of commitments made in the plan to achieve measurable environmental outcomes, and a reference to exactly where these commitments are detailed in the plan; c) Commitments capable of ensuring that the environmental outcomes are achieved; d) Reporting and review mechanisms to demonstrate compliance with the commitments made in the plan; e) An assessment of risks relating to achieving the environmental outcomes and risk management	Whole of this plan. a) Section 6 (Protected Matters - Species Ecology) b) Table 12 Commitments Register) c) Table 11 Management Controls) and Table 12 Commitments Register) d) Section 8 (Reporting, Monitoring, Audit and Review) e) Table 9 Preliminary risk assessment summary)	This DMP has been prepared in accordance with Condition 5 of the EPBC Act approval.

EPBC Act condition	Summary of condition requirement	DMP section / table	Evidence
	strategies and/or mitigation measures that will be applied to address identified risks; f) Impact avoidance, mitigation and repair measures, and the timing of those measures; g) A monitoring programs, which must include: 1. Performance indicators; 2. Trigger values for corrective measures; 3. The timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators; 4. Proposed corrective measures if trigger values are reached; and h) References to other relevant plans or conditions of approval (including Tasmanian Approval conditions).	f) Table 11 Management Controls), Table 12 Commitments Register), Table 13 Den monitoring activities) g) Table 13) h) This table and Section 9 (Reference Documents)	
16	Submit the Den Management Plan to DCCEEW for the Minister's approval; do not commence the Action unless the Minister has approved the Plan in writing.	Section 1 (Introduction); Table 12 (Commitments Register).	C1 (Minister's written approval prior to commencement). Evidence: Ministerial approval letter; document control record.
17	If an active den is identified during any pre-clearance survey: no work within 50 m until the animal has naturally dispersed (no attempt to disturb), and an independent SQE confirms in writing that no animal was disturbed or remains in the den or its vicinity.	Section 1 (Introduction); Table 9 (Preliminary risk assessment summary), Table 11 (Management Controls); Table 12 (Commitments Register); Table 13 (Den monitoring activities).	M1-M4, C2–C5 and R1–R3. Evidence: pre-clearance survey reports/maps; GIS Environment Protection Zone (EPZ) layer; toolbox/induction records; SQE written clearance; incident reports (if required).

Table 2 MIDA Act approval conditions and response

MIDA Act condition	Summary of condition requirement	DMP section / table	Evidence
28	There must be no works or operation of machinery within 50m of an active devil or quoll den. A survey for Tasmanian Devil and Quoll dens must be undertaken not more than 12 months prior to commencement of the works or operation of the machinery, consistent with the Survey Guidelines and Management Advice for Development Proposals that may impact the Tasmanian Devil (*Sarcophilus harrisii*) (NRE Tas, 2023). The survey must include all potential denning habitat (including wombat burrows) cleared to ground level and ground cover, including winch, drum and break sites, new access tracks, and tower assembly areas.	Section 1 (Introduction); Table 11 (Management Controls); Table 12 (Commitments Register)	M1-M4 (surveys and EPZ establishment), C3 (Apply 50 m EPZ for any active den), Evidence: GIS layer, site photos, daily checks
29	Prior to the commencement of works, a den management plan must be submitted to and approved by the Commission. The plan must include: 1. reference to restriction on clearing within 50m of an active devil or quoll den asset out in condition 28 (see above): 2. details of the area of construction 3. a requirement to install EPZs around active dens 4. a requirement for a pre-clearance check of known dens 5. a requirement for den monitoring and assessment of potentially active dens 6. a den decommissioning protocol 7. management details to be implemented for unanticipated discovery of dens 8. an offset trigger where an existing devil den is destroyed and associated requirements for offset implementation. The plan must be implemented once approved, and form part of the Construction Environmental Management Plan.	This DMP Table 11 (Management Controls), Section 7.4 Den decommisioning protocol; Section 8 Reporting, Monitoring, Audit and review	C1 (Minister's written approval prior to commencement). Evidence: Ministerial approval letter; document control record.

1.5 Objectives

The objectives of this plan are:

- to meet the requirements of EPBC Act approval EPBC 2022/09247, Conditions 5, 16 and 17
- to be consistent with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) Environmental Management Plan Guidelines (the Guidelines)
- to meet the requirements of MIDA Act approval MIPP-2026-01, Condition 29
- to be consistent with the Survey Guidelines and Management Advice for Development Proposals that may Impact the Tasmanian Devil, published by the Department of Natural Resources and Environment Tasmania (NRE Tas). These guidelines outline minimum expectations for implementing appropriate avoidance and mitigation measures to prevent disturbance to Tasmanian devils
- effectively implement TasNetworks policies and procedures.

2. Environmental Management Roles and Responsibility

Responsibilities in relation to the implementation of this plan are presented in Table 3.

Table 3 Responsibilities for Den Management Plan

Role	Responsibility
Approval holder / Project Director	– Overall accountability for resourcing, implementation and effectiveness of the Plan, and for ensuring auditable evidence of compliance with approval conditions.
Construction Manager	– Ensure den management controls are implemented in the field, EPZs and buffers are respected, personnel are briefed on requirements, and works cease where triggers or unapproved impacts to dens are identified.
Environmental Manager	– Responsible for implementation of the Den Management Plan in accordance with the NWTD CEMP and Flora and Fauna Management Subplan, including coordinating den surveys, maintaining the den register, establishing EPZs and hold points, managing and maintaining environmental records, and overseeing monitoring, reporting and corrective actions.
Independent Suitably Qualified Ecologist (SQE)	Undertakes den surveys and assessments, determines den status and risk, provides written advice and clearance where required, and supports independent, auditable compliance with approval conditions.
All workers	Comply with den management controls, cease works and report suspected dens or non-compliances to site supervision and the Environmental Manager immediately.

3. Environmental Training and Communication

3.1 Training and inductions

Training and communication for the Den Management Plan will be undertaken in accordance with the training

and awareness requirements outlined in the approved CEMP and Flora and Fauna Management Sub-Plan (FFMSP). This approach ensures consistent understanding of environmental obligations, controls and response procedures across the project workforce.

- All personnel involved in clearing, ground-disturbance or construction activities will receive project induction training that includes den management requirements, delivered as part of the CEMP and FFMSP induction process.
- Targeted environmental awareness training will be provided to relevant personnel (e.g. supervisors, machinery operators and environmental staff) and will include:
  - identification of fauna dens and den indicators;
  - den avoidance measures and EPZ requirements;
  - stop-work, hold point and notification procedures;
  - unanticipated discovery protocols; and
  - roles and responsibilities under this Plan, the FFMSP and the CEMP.
- Suitably Qualified Ecologist (SQE) briefings or toolbox talks may be undertaken prior to clearing or high-risk activities where den presence is likely.

3.2 Communication

- Den management requirements will be communicated through established CEMP and FFMSP mechanisms, including:
  - site inductions;
  - pre-start meetings and toolbox talks;
  - environmental alerts or notices; and
  - signage where EPZs or controls are in place.
- Updates to den locations, EPZs or controls will be communicated to relevant personnel in a timely manner via site supervision and the Environmental Manager.

3.3 Training records

- Records of inductions, toolbox talks and targeted training relevant to den management will be maintained in accordance with the CEMP and FFMSP record-keeping requirements.
- Training records will be made available for audit and compliance reporting purposes where required.

4. Emergency Contacts and Procedures

Emergency contacts, incident response arrangements and escalation procedures for the Project are defined in the CEMP.

In the event of an environmental emergency, incident or unanticipated impact related to or affecting fauna dens (including damage to a den, changes in fauna behaviour associated with disturbance near active dens, or fauna injury or mortality), works will be immediately stopped where required and the response, notification and reporting procedures set out in the Emergency Response and Incident Management section of the CEMP will be implemented.

This includes internal notification to the Environmental Manager, engagement of a Suitably Qualified Ecologist where required, incident classification, corrective actions, and regulatory notification in accordance with EPBC Act and MIDA Act approval requirements.

Site-specific emergency contact details will be maintained and made available to all personnel in accordance with the CEMP.

5. Potential Impacts and Risks

Construction activities associated with the NWTD Project have the potential to result in direct and indirect impacts to Tasmanian devil, spotted-tailed quoll and Eastern quoll dens if not appropriately managed. These species rely on secure, undisturbed dens for shelter and reproduction, and disturbance to active dens, particularly maternal dens, can result in den abandonment, injury or mortality of dependent young.

Potential environmental impacts and risks relevant to den management include:

- Direct disturbance or destruction of dens during vegetation clearance, earthworks, trenching, access track construction, tower assembly or associated ground-disturbing activities;
- Disturbance to active dens from construction noise, vibration, human presence or machinery operation, resulting in stress, altered behaviour or abandonment, particularly during the denning and breeding period; Unanticipated discovery of active or potential dens during works, where clearing or construction proceeds without prior identification and appropriate exclusion controls in place;
- Inadequate establishment or breach of EPZs, leading to works occurring within the required 50 m buffer of an active den; and
- Insufficient communication or awareness among site personnel, resulting in non-compliance with den protection requirements and approval conditions.

Without effective management, these impacts could result in non-compliance with Conditions 16 and 17 of EPBC Act approval 2022/09247 and Condition 29 of MIDA Act approval MIPP-2026-01, as well as adverse outcomes for protected fauna.

The mitigation of these risks is addressed through the management measures, performance criteria, controls, triggers and corrective actions set out in Sections 6 and 7 of this Plan. The DMP emphasises early identification of denning habitat, pre-clearance surveys by a suitably qualified ecologist, strict avoidance of active dens through the establishment of EPZs, clear stop-work and hold-point procedures, and adaptive management where unanticipated dens are encountered.

5.1 Risks and corrective actions

Table 4 provides an overview of potential risks and outlines the corrective actions to be taken in response to these risks during construction. These elements are consistent with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) Environmental Management Plan (EMP) Guidelines, which require clear trigger thresholds and associated corrective actions linked to defined commitments and environmental outcomes.

Table 4 Plan specific triggers and responses

Risk	Trigger value/risk	Immediate action	Corrective action / prevention	Verification record
R1	EPZ breach	Stop work, notify Construction Supervisor and Environmental Manager, implement CEMP incident response procedures	Re-establish EPZ, review Safe Work Method Statements (SWMS), retrain personnel as required	Incident report in accordance with CEMP, photographs

Risk	Trigger value/risk	Immediate action	Corrective action / prevention	Verification record
R2	Clearing starts without pre-clearance check	Stop work, implement hold point, notify Environmental Manager	Undertake pre-clearance check by SQE, document outcomes and clearance	Incident report in accordance with CEMP, Written record from SQE
R3	Active Tasmanian devil, spotted-tailed quoll or Eastern quoll den discovered during works	Stop work, notify Environmental Manager and SQE, activate unanticipated discovery protocol under Flora and Fauna Management Subplan (FFMSP)	Establish EPZ, monitor den as advised by SQE, implement adaptive management measures	Written record from SQE, incident report, photographs
R4	Tasmania devil, spotted-tailed quoll or Eastern quoll mortality related to clearing works	Stop work, notify Environmental Manager and SQE immediately, manage as environmental incident under CEMP/FFMSP	SQE to investigate cause, review controls and clearing procedures, retrain personnel	Written record from SQE, incident report, photographs

Notifications, incident classification, escalation and external reporting (where required) will be undertaken in accordance with the incident and non-conformance management procedures set out in the approved CEMP and Flora and Fauna Management Subplan.

A risk assessment for key aspects, and associated construction activities of the Project is summarised Table 9. The risk assessment is based on the risk matrix shown in Table 5, which is based on the DCCEEW EMP Guidelines. The environmental risks are determined using this matrix, which incorporates the likelihood and consequence of the aspect being assessed. The colour categories, and descriptions of likelihood and consequence are outlined in Table 6, Table 7 and Table 8. The risk assessment identifies the aspects and potential consequences associated with construction activities for the Project and the environmental management measures to minimise or mitigate the consequences. An inherent risk rating, and a residual risk rating, after application of the environmental management measures, is assigned.

Table 5 Risk matrix based on DCCEEW EMP guidelines

Likelihood	Consequences				
	1 (Minor)	2 (Moderate)	3 (High)	4 (Major)	5 (Critical)
A (Highly likely)					
B (Likely)					
C (Possible)					
D (Unlikely)					
E (Rare)					

Table 6 Risk rating key and acceptability

Risk Rank	Description
Tolerable	Risk reduction not required
Risk reduction required	Risk reduction measures need to be implemented so that risk is as low as reasonably practicable
Unacceptable	Risk is too great for activity to proceed

Table 7 Likelihood of risk

Ranking	Qualitative measure of likelihood	Description
A	Highly likely	Is expected to occur in most circumstances
B	Likely	Will probably occur during the life of the project
C	Possible	Might occur during the life of the project
D	Unlikely	Could occur but considered unlikely or doubtful
E	Rare	May occur in exceptional circumstances

Table 8 Consequences of risk

Ranking	Qualitative measure of likelihood	Description
1	Minor	Minor incident of environmental damage that can be reversed
2	Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
3	High	Substantial instances of environmental damage that could be reversed with intensive efforts
4	Major	Major loss of environmental amenity and real danger of continuing
5	Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Table 9 Preliminary risk assessment summary

Major Environmental Hazard Event	Potential Risks to Environment and People	Risk ranking Pre-management			Risk Mitigation Items and relevant subplan(s)	Residual risk rating		
		Likelihood	Consequenc	Ranking		Likelihood	Consequence	Ranking
EPZ breach	Disturbance, injury or death of Tasmanian devil, spotted-tailed quoll or Eastern quoll, or damage to a den, population decline. Abandonment of dens or young, injury or death of young.	C	3		Management controls: M2 and M4	D	3	
Clearing starts without pre-clearance check	Disturbance, injury or death of Tasmanian devil, spotted-tailed quoll or Eastern quoll, or damage to a den, population decline. Abandonment of dens or young, injury or death of young.	C	3		Management controls: M1, M3 and M4	D	3	
Active Tasmanian devil, spotted-tailed quoll or Eastern quoll den discovered during works	Disturbance, injury or death of Tasmanian devil, spotted-tailed quoll or Eastern quoll, or damage to a den, population decline. Abandonment of dens or young, injury or death of young.	C	3		Management controls: M1, M2, M3, M5 and M6	D	3	
Tasmania devil, spotted-tailed quoll	Disturbance, injury or death of	D	3		Management controls: M1, M2, M3, M5 and M6	D	3	

Major Environmental Hazard Event	Potential Risks to Environment and People	Risk ranking Pre-management			Risk Mitigation Items and relevant subplan(s)	Residual risk rating		
		Likelihood	Consequenc	Ranking		Likelihood	Consequence	Ranking
or Eastern quoll mortality related to clearing works	Tasmanian devil, spotted-tailed quoll or Eastern quoll, or damage to a den, population decline. Abandonment of dens or young, injury or death of young.							

6. Protected Matters - Species Ecology

All three species rely on secure, undisturbed dens for successful reproduction, with female occupancy and dependent young present for extended periods. Active breeding dens represent a high-risk sensitivity, and disturbance can lead to abandonment and direct population-level impacts. Accordingly, effective den management focusses on early detection, strict avoidance, establishment of EPZs, and natural dispersal without disturbance, supported by verification from a suitably qualified ecologist prior to commencement of works.[1]

Natural dispersal can be tracked using camera monitoring (minimum of 2 cameras, covering all entries to a potential den) for a minimum of seven nights. If there are no more than two entries or exits by a single individual over seven nights then the den can be assumed to be non-maternal, as per the *Survey Guidelines and Management Advice for Development Proposals That May Impact the Tasmanian Devil (Sarcophilus harrisii)* (this also applies as a threshold for determining when a maternal den is not longer in use for a given breeding season).

6.1 Tasmanian devil (*Sarcophilus harrisii*)

Tasmanian devils are wide-ranging, nocturnal carnivorous marsupials that utilise dens primarily for shelter and breeding. Breeding typically occurs in late autumn–early winter, with females occupying maternal dens for extended periods while pouch young develop and later when young are left in the den prior to independence.[2]

Maternal dens are most commonly located in underground burrows (including former wombat burrows), caves, rock crevices, hollow logs and dense vegetation, and may be reused across years. Females can exhibit high den-fidelity during the breeding period and may rotate between nearby secondary dens. Disturbance of active maternal dens can result in den abandonment and mortality of dependent young; consequently, dens are considered highly sensitive features requiring strict avoidance during works. The recognised maternal denning season generally extends from July to December, although denning can occur outside this period depending on environmental conditions and disease status within the population.[3]

6.2 Spotted-tailed quoll (*Dasyurus maculatus* subsp. *maculatus*)

The spotted-tailed quoll is a large, forest-associated marsupial carnivore that relies on secure, thermally stable dens for breeding and rearing young. Breeding occurs in winter, with females establishing maternity dens where young remain after leaving the pouch for several weeks during lactation. Maternity dens are typically located in rocky crevices, caves, hollow logs, hollow trees, dense ground cover and burrows, often within structurally complex habitats. Females may occupy a den for several weeks before moving young to an alternative den nearby, indicating that multiple dens within a small area may be used sequentially during the breeding period. Females show strong site fidelity during denning, and disturbance to an active den can disrupt maternal care and result in den abandonment. As such, active quoll dens are highly sensitive to ground disturbance and human activity.

6.3 Eastern quoll (*Dasyurus viverrinus*)

Eastern quolls are medium-sized marsupial carnivores that utilise dens extensively for shelter and breeding. Breeding occurs annually, with females rearing a single litter per year. After leaving the pouch, young remain in a breeding den for several weeks to months while they develop prior to independence. Dens are commonly located in underground burrows, hollow logs, hollow trees, root systems and dense vegetation, often within woodland, grassland–woodland mosaics and forest edges. Females occupy dens almost exclusively during the denning period and show high dependence on undisturbed den sites for successful juvenile survival. Disturbance to active dens during the breeding period can result in abandonment and loss of dependent young. In Tasmania, denning generally occurs from winter through to spring, though timing can vary with local conditions.[4]

[1] NRET 2023
[2] DCCEEW 2021
[3] NRET 2018
[4] TSSC 2015

7. Environmental Performance Criteria, Commitments and Management Controls

7.1 Performance criteria

Table 10 establishes performance criteria for the NWTD construction works.

Table 10 Performance criteria for the Den Management Plan

Criterion	Description
1	Zero disturbance of active dens through implementation of environmental protections zones (50 m buffer)
2	All work areas have documented pre-clearance survey outcomes and compliance records
3	Nil mortality to Tasmanian devils, spotted-tailed quolls or Eastern quolls from construction related works
4	100% compliance with management controls listed in Table 11 Management Controls
5	Works will only recommence near active dens after independent ecological verification of natural dispersal and written clearance consistent with approval requirements

7.2 Management controls

Table 11 outlines the key management controls and procedures established to protect Tasmanian devils, spotted-tailed quolls and eastern quolls during construction activities. These measures are designed to minimise environmental impact and ensure compliance with permit conditions.

Table 11 Management Controls

ID	Specific control	Relevant reference/guideline	Responsibility
Pre-construction			
M1	A suitably qualified ecologist will undertake pre-construction den surveys for Tasmanian devil, spotted-tailed quoll and Eastern quoll across 100% of disturbance areas containing potential denning habitat. These surveys will be undertaken in accordance with relevant habitat definitions and methods outlined in applicable guidelines. Survey findings, recommendations and required follow-up actions will be documented and implemented prior to works commencing, as verified by the Environmental Manager.	R2 (Table 4), DM1 (Table 13), C2 (Table 12) EIS commitments CM047, CM040 Survey Guidelines and Management Advice for Development Proposals that may impact the Tasmanian Devil (*Sarcophilus harrisii*) (Environment Strategic Business Unit 2023). (NRE Tas, 2024) Conservation Advice *Dasyurus viverrinus* (eastern quoll) (TSSC, 2015) FPA Fauna Technical Note No. 10: Identifying Tasmanian devil and spotted-tailed quoll habitat (Forest Practices Authority, 2014a)	Environmental Manager
M2	A suitably qualified ecologist will identify all EPZs for	R1 and R3 (Table 4), DM3, C3	Environmental

ID	Specific control	Relevant reference/guideline	Responsibility
	Tasmanian devil, spotted-tailed quoll and Eastern quoll dens, with a minimum 50 m buffer around confirmed active dens, within seven days of den use being confirmed, prior to works commencing within 50 m. All EPZs will be mapped in GIS and physically delineated onsite (e.g., flagging, fencing or barriers) and verified prior to construction.	EIS commitment CM038	Manager
Construction			
M3	Activity surveys of Tasmanian devil, spotted-tailed quoll, Eastern quoll or wombat dens will be undertaken by an SQE for any works proposed within 50 m of a potential or known den, with surveys completed a minimum of three months prior to commencement of works in that area. Surveys will include seven or more consecutive days of remote camera monitoring, followed by timeframe allowances for permitting requirements. Potentially active dens will be assessed and monitored in accordance with SQE recommendations and applicable guidelines, with outcomes documented and approved prior to works. This applies as a requirement for a pre-clearance check of known dens.	R2 and R3 (Table 4), DM1 and DM2 (Table 13), C2 and C5 (Table 12) EIS commitments CM040, CM047 Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (*Sarcophilus harrisii*)' (NCHD 2015a).	Environmental Manager
M4	Construction activities will not occur within established EPZs (minimum 50 m) for active Tasmanian devil, spotted-tailed quoll or Eastern quoll dens, with zero unauthorised incursions permitted. All workers will undergo inductions and training prior to work commencing to reinforce the protocol for den management outlined in this plan. Compliance will be verified through daily site inspections and supervision.	R1 and R4 (Table 4), DM3 and DM5 (Table 13), C3 and C4 (Table 12) EIS commitment CM040	Environmental Manager Site Supervisor
M5	Products of wildlife (including inactive Tasmanian devil, spotted-tailed quoll or Eastern quoll dens) will not be disturbed, removed or decommissioned without a valid permit to take under the Tasmanian *Nature Conservation Act 2002*, and implementation of an approved den decommissioning protocol and any required offsets prior to works. If an existing Tasmanian devil den is required to be removed, this will trigger the requirement for permits and offsets in accordance with EPBC Act approval conditions and relevant Tasmanian legislation. Offset measures will include the construction of artificial dens at a minimum ratio of 2:1, in accordance with applicable guidelines, and will be implemented prior to or in parallel with disturbance. 100% of approvals must be obtained and recorded	R3 and R4 (Table 4), DM2 and DM5 (Table 13), C5 (Table 12) EIS commitment CM040 Threatened Species Protection Act Permit for Threatened Species, Wildlife and/or Products of Wildlife Threatened Fauna Pre-construction Decision Tree (See Flora and Fauna Management Subplan, Appendix A) Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (*Sarcophilus harrisii*)	Environmental Manager Site Supervisor

ID	Specific control	Relevant reference/guideline	Responsibility
	before works involving dens proceed. Den closure and destruction will be carried out as per the *Survey Guidelines and Management Advice for Development Proposals That May Impact the Tasmanian Devil (Sarcophilus harrisii).*	(NCHD 2015a).	
M6	If any potential or active Tasmanian devil, spotted-tailed quoll or Eastern quoll den is identified during construction, works will stop immediately within the vicinity (minimum 50 m), an interim EPZ established within one day, and the Environmental Manager and SQE notified within one hour. The SQE will assess den status using guideline-consistent methods (field evidence and/or camera monitoring where required). Appropriate controls will be implemented in accordance with applicable guidelines, and written SQE clearance must be obtained prior to recommencing works within 50 m of the den. Worker inductions and training will be conducted prior to the commencement of works, which will incorporate this protocol should a potential or active den site be discovered during construction. Recommencement of works within 50 m will only occur following SQE verification of natural dispersal (DM4) and written clearance.	R1 and R3 (Table 4), DM2, DM3 DM4 and DM5 (Table 13), C3 and C6 (Table 12) Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (*Sarcophilus harrisii*)' (NCHD 2015a).	Environmental Manager Site Supervisor SQE

7.3 Den management plan specific commitments register

Table 12 outlines the commitments required during implementation of the DMP to meet EPBC Act and MIDA Act approval requirements for the Project.

Table 12 Commitments Register

ID	Commitment	Measure	Timing	Responsibility	Evidence / Record	Corresponding Management Control (Table 11)
C1	The DMP will be submitted for approval and written approval obtained from the Commonwealth Minister (or delegate) prior to commencement of any construction works, with approval recorded in the document control system.	Approval obtained and recorded (Yes/No)	Prior to commencement of any construction works (hold point)	Environmental Manager	Ministerial approval letter, document control register	–
C2	Pre-clearance surveys will be undertaken by a suitably qualified ecologist for 100% of disturbance areas within three months prior to ground disturbance, with results documented and approved before works commence in each area.	100% of disturbance areas surveyed and approved prior to disturbance (Yes/No)	Within three months prior to disturbance for each work area	Environmental Manager / SQE	Survey report, GIS maps, approval records (email or system). Disturbance area maps available online (Part-E-Attachment-8-Proposed-Plans-Part-2.pdf) – noting 'proposed easement' as the disturbance area.	M1
C3	A minimum 50 m Environmental Protection Zone (EPZ) will be established around all confirmed active dens prior to works, within seven days of den use being confirmed. with zero unauthorised incursions, and EPZs delineated in GIS and physically marked onsite.	Zero unauthorised incursions into 50 m EPZ (Yes/No) EPZ correctly established (Yes/No)	Prior to works within 50 m, and maintained throughout construction; daily checks	Environmental Manager / Site supervisor	GIS layer, site photos, daily inspection records	M2, M4
C4	Works will be managed to ensure natural dispersal only from active dens, with no harassment, relocation, or disturbance, and	Zero disturbance events (Yes/No)	Ongoing throughout construction; daily supervision;	All personnel (overseen by	Induction and toolbox records, incident logs, audit records	–

ID	Commitment	Measure	Timing	Responsibility	Evidence / Record	Corresponding Management Control (Table 11)
	compliance maintained through inductions, supervision, and incident reporting.	100% personnel inducted (Yes/No)	inductions prior to site access	Environmental Manager)		
C5	Where dens are confirmed inactive, written approval/permit for decommissioning will be obtained from the relevant authority following survey, and no decommissioning will occur prior to approval being documented.	Permit obtained prior to decommissioning (Yes/No)	After survey confirmation of inactivity and prior to decommissioning works (hold point)	Environmental Manager / SQE	Approval email/permit, survey report, records register	M3, M5
C6	Written clearance from SQE will be obtained prior to recommencement of works within 50 m of an active den, with 100% of clearances documented and recorded.	100% of clearances documented prior to recommencement (Yes/No)	Prior to recommencement of works within 50 m of an active den (hold point)	SQE / Environmental Manager	Clearance certificate/email, document control system	M6

7.4 Den decommissioning protocol and offsetting

Den decommissioning will be carried out in accordance with Section 4.3 – Den closure and destruction of *Survey Guidelines and Management Advice for Development Proposals That May Impact the Tasmanian Devil (Sarcophilus harrisii).* Offsetting impacted dens at a ratio of 2:1 is the only offset measure for impacted dens proposed in this management plan. There are no specific guidelines on the number of offset dens required when impacting dens, therefore a 2:1 ratio was chosen, aiming to be ambitious in not only matching (i.e. 1:1) impacted dens, but creating extra habitat beyond this. Employing a proactive approach in offsetting is not only more beneficial for the impacted species but can improve social licence for projects.

Artificial offset dens must be constructed within one week of the decommissioning or temporary closure of the impacted den. The artificial offset dens must replicate the values of the impacted den, including size and number of entrances, depth, materials and location. These specifics will be documented and overseen by a SQE. Specific protocols are listed below:

- For dens that are in directly in a construction zone (i.e., unavoidable or in the footprint of proposed infrastructure), once confirmed as inactive, the den will be either excavated or blocked with stone/rock
    - Each decommissioned den will be offset at a rate of two offset artificial dens for each decommissioned den
    - The offset dens will be placed at a nearby site with similar ecological values, as determined by a SQE
- For dens that are confirmed as inactive within 50 m of construction, but are not in the immediate impact footprint, the entrances will be temporarily blocked during works so that a Tasmanian devil/*Dasyurus* sp. does not re-enter during construction
    - Temporarily blocked inactive dens will be offset at a rate of two offset artificial dens for each temporarily block den
    - The offset dens will be placed at a nearby site with similar ecological values, as determined by a SQE

8. Reporting, Monitoring, Audit and Review

This Plan adopts the reporting, auditing and review framework established under the approved CEMP and Flora and Fauna Management Subplan (FFMSP), to ensure consistency in environmental incident management, compliance reporting and audit processes across the project (MIDAA Condition 60).

8.1 Reporting

8.1.1 Internal reporting

The Environmental Manager will prepare reporting consistent with CEMP and FFMSP requirements, including:

- weekly or stage-based summaries of den surveys undertaken;
- dens identified and their status;
- EPZs and hold points established;
- incidents, non-conformances and corrective actions; and
- SQE advice and clearance outcomes.

Internal reporting will be provided to the Construction Manager and Project Director in accordance with the CEMP environmental reporting framework.

8.1.2 Regulatory reporting

Reporting will specifically demonstrate compliance with EPBC Act approval conditions 5, 16 and 17, including implementation of commitments, monitoring outcomes and any trigger exceedances.

In accordance with EPBC Act approval condition 45(a)(iii), compliance reporting to DCCEEW will include reporting on the implementation of commitments and achievement of environmental outcomes specified in this Den Management Plan (Table 12). This will include, but is not limited to:

- approval and implementation of the Den Management Plan (Commitment C1), including confirmation that written approval was obtained prior to commencement of works and that approval conditions have been implemented.
- completion of pre-clearance den surveys (Commitment C2, MIDAA Condition 28), including:
    - spatial extent of surveys
    - survey timing (relative to disturbance)
    - survey findings and den status (active / potential / inactive)
    - evidence of Environmental Manager approval prior to works
- identification, establishment and compliance with Environmental Protection Zones (EPZs) (Commitment C3), including:
    - GIS mapping and physical demarcation of EPZs
    - results of daily EPZ inspections and monitoring
    - records of any breaches or non-conformances, including response actions and timeframes
- confirmation that no works occurred within 50 m of active dens and that natural dispersal requirements were met (Commitment C4), including:
    - verification through supervision and inspection records
    - any disturbance events, including time of occurrence, response actions, and outcomes
- implementation of hold points and approvals, including:
    - pre-clearance verification and approvals prior to disturbance (Commitment C2)
    - SQE approvals prior to recommencement of works within 50 m of active dens (Commitment C6)
    - confirmation that no works proceeded without required approvals
- records of den monitoring and assessment, including:
    - activity survey outcomes and camera monitoring (where applicable)
    - SQE assessments and determinations of den status
    - monitoring updates for active and potentially active dens over time
- any permits issued and actions undertaken in relation to den decommissioning (Commitment C5), including:
    - permit approvals and conditions
    - implementation of the den decommissioning protocol
    - any associated offset requirements or actions
- incidents, non-compliances, trigger events and corrective actions (MIDAA Condition 60), including:

    - description of event or breach (e.g. EPZ incursion, disturbance event, failure to obtain approval)
    - timeframes for reporting (e.g. within 1–24 hours) and response actions implemented
    - outcomes of investigations and preventative measures adopted
  - progress against performance criteria outlined in Table 10, including:
    - achievement of key targets (e.g. zero unauthorised incursions, zero disturbance of active dens)
    - compliance with management controls (M1–M6)

Reporting will include supporting evidence such as:

- survey reports and ecological assessments
- GIS data and spatial mapping outputs
- daily inspection and monitoring records
- photographic evidence
- SQE advice, assessments and clearance documentation
- permits, approvals and correspondence with regulators
- incident reports, non-conformance records and corrective action tracking (MIDAA Condition 60)

All reporting will be prepared and maintained in accordance with the CEMP and Flora and Fauna Management Sub-Plan (FFMSP) reporting framework, ensuring records are accurate, complete, traceable, and auditable.

8.2 Monitoring

Monitoring will be undertaken to verify the effectiveness of den management measures and to demonstrate compliance with EPBC Act approval conditions, MIDA Act approval conditions (Condition 28 and 29) and the commitments outlined in this Plan.

The monitoring program focuses on confirming implementation of control measures (including EPZs), verifying natural dispersal of fauna from dens, and detecting any potential non-compliances or impact events. Monitoring activities, methods, frequency and responsibilities are summarised in Table 13.

Table 13 Den monitoring activities

Label	Monitoring activity	Method	Frequency	Responsibility	Record	Linked commitments (Table 12)
DM1	Pre-clearance den surveys	Field survey and habitat assessment	Prior to disturbance (≤3 months)	SQE/Environmental Manager	Survey report, GIS mapping	C2
DM2	Active den monitoring	Remote camera monitoring (min. 7 nights)	Prior to works within 50 m and as required	SQE	Camera records, assessment report	C2, C5
DM3	EPZ compliance	Visual inspection	Daily during works near	Site Supervisor/Environmental Manager	Inspection checklist, photos	C3

Label	Monitoring activity	Method	Frequency	Responsibility	Record	Linked commitments (Table 12)
			dens			
DM4	Natural dispersal verification	Review of camera data and field signs	Prior to re-entry within 50 m	SQE	Written clearance	C4, C6
DM5	Incident monitoring	Inspection and reporting	As triggered	Environmental Manager	Incident reports	C4

8.3 Auditing

The Environmental Manager will coordinate audits consistent with the CEMP and FFMSP audit program, including:

- routine inspections and verification of EPZs;
- review of den registers, survey records and SQE clearances;
- verification that corrective actions have been implemented and closed out; and
- Verification that offsets have been triggered and implemented within the one-week timeframe.

Audit outcomes relevant to den management will be captured within the project's environmental audit and review processes under the CEMP.

8.4 Review and continuous improvement

This Den Management Plan will be implemented, reviewed and updated in accordance with EPBC Act approval 2022/09247, including Condition 27. The DMP will be reviewed at regular intervals and where required in response to changes in project scope, construction methodology, environmental conditions, monitoring results, audit findings, incidents, or updated approval conditions. Where revisions to this Plan are required, the updated plan will be submitted to DCCEEW for approval (where required) prior to implementation, and all approved changes will be communicated to relevant personnel.

9. Reference Documents

Title	Reference/link
Regulator Permits	
Major Infrastructure Project Planning Permit Granted under the *Major Infrastructure Development Approvals Act 1999* and the *Land Use Planning and Approvals Act 1993*	Permit number: MIPP-2026-01 North West Transmission Upgrades Project - Palmerston to Hampshire Section - Final Report and permit, 10 March 2026
Environment Protection and Biodiversity Conservation Act 1999	EPBC Act Permit number EPBC 2022/09247
TasNetworks Protocols	

Title	Reference/link
Environmental Risk Management Standard	Environmental Risk Management Standard, R0002759377, TasNetworks, July 2025
Wildlife Interactions Standard	Wildlife Interactions Standard, R0002849257, TasNetworks, July 2025
Environmental Standard for Vegetation Management and Clearing	Environmental Standard for Vegetation Management and Clearing, TasNetworks, July 2025
Forest Practices Authority Guidelines	
Forest Practices Code 2020	Forest Practices Authority 2020. Forest Practices Code. Forest Practices Authority, Hobart, Tasmania. Forest Practices Code
Fauna Technical Note no. 9: Record sheet for fauna observations	Forest Practices Authority 2011. Record sheet for fauna observations. Fauna Technical Note No. 9. Forest Practices Authority, Hobart, Tasmania. Introduction
Fauna Technical Note No. 10: Identifying Tasmanian devil and spotted-tailed quoll habitat	Forest Practices Authority 2014. Identifying Tasmanian devil and spotted-tailed quoll habitat. Fauna Technical Note No. 10. Forest Practices Authority, Hobart, Tasmania. Microsoft Word - Fauna Tech Note 10 - Identifying Tasmanian devil, Eastern and Spotted-tailed quoll habitat (2025)
Other relevant guidelines	
DCCEEW EMP Guidelines	Department of Climate Change, Energy, the Environment and Water, Environmental Management Plan Guidelines, Version 1.2 (2024)
Survey Guidelines and Management Advice for Development Proposals that may impact the Tasmanian Devil (*Sarcophilus harrisii*)	Environment Strategic Business Unit (2023) Survey Guidelines and Management Advice for Development Proposals that may impact the Tasmanian Devil (*Sarcophilus harrisii*). Department of Natural Resources and Environment, Tasmania. Devil Survey Guidelines and Advice.pdf
DCCEEW Survey guidelines for threatened species	On-ground surveys and data for referred actions under the EPBC Act - DCCEEW
Conservation Advice – Eastern Quoll (*Dasyurus viverrinus*)	Threatened Species Scientific Committee (TSSC). 2015. Conservation Advice – Eastern Quoll (*Dasyurus viverrinus*). Australian Government.
Conservation Advice – Tasmanian Devil (*Sarcophilus harrisii).*	Department of Climate Change, Energy, the Environment and Water (DCCEEW). 2021. Conservation Advice – Tasmanian Devil (*Sarcophilus harrisii*). Commonwealth of Australia.
Related project plans / CEMP subplans	

Title	Reference/link
Vegetation Rehabilitation Management Subplan	NWTD Construction Environment Management Plan
Flora and Fauna Management Subplan	NWTD Construction Environment Management Plan
North West Transmission Developments DA/EIS information	
Ecology Baseline Characterisation and Impact Assessment (NWTD EP-DA-502)	Entura 2025. Ecology Baseline Characterisation and Impact Assessment. Remaining North West Transmission Developments, Part E – Attachments and appendices, Appendix B. NWTD EP-DA-502
Management Measures (NWTD-EP-DA-610)	TasNetworks 2025. Management measures. Remaining North West Transmission Developments, Part E – Attachments and appendices, Attachment 10. NWTD-EP-DA-610

10. Glossary

Term	Definition
Action	The approved action EPBC 2022/09247 (Remaining North West Transmission Developments for electricity network, North West Tasmania) assessed under the EPBC Act.
Active den	A den confirmed as currently occupied/being used by Tasmanian devil, spotted-tailed quoll or Eastern quoll (e.g., by direct observation, remote camera evidence, or other evidence assessed by a suitably qualified ecologist).
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water.
Den Management Plan (DMP)	This document, which sets out commitments and controls to avoid and minimise harm to denning Tasmanian devil, spotted-tailed quoll and eastern quoll.
Den vicinity	The area surrounding a den where an animal may be present and could be disturbed, including (as a minimum for this Plan) the 50 m no-work buffer required under Condition 17.
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth).
EPBC Act approval	The approval decision, EPBC 2022/09247, issued for the Project under the EPBC Act.
EPZ	Environmental Protection Zone. For this Plan, the primary EPZ is the 50 m no-work buffer around an active den (and any interim EPZ established upon potential den discovery).
Hold point	A mandatory stop in work scheduling/authorisation that prevents clearing or ground disturbance from proceeding until specified requirements are met (e.g., completion of pre-clearance survey and required written clearances).
MIDA Act	*Major Infrastructure Development Approvals Act 1999* (Tas).
MIDA Act approval	Approval MIPP-2026-01 issued for the Project under the MIDA Act.
NWTD	North West Transmission Developments.
Pre-clearance survey	A site-specific survey completed before any vegetation clearance and/or ground disturbance at a work front to identify potential and active dens and to inform EPZs, hold points and controls (Section 7).
SQE	Suitably Qualified Ecologist. Where specified as independent, the SQE is engaged to objectively assess den status and provide written confirmation required to recommence works within 50 m of an active den (Condition 17).

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