

Access Track and Service Locating Methodology

Northern Midlands Irrigation Scheme

EPBC Number: 2022/09295



Proponent details

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Declaration of accuracy

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: Sophie Grace
Organisation: Tasmanian Irrigation Pty Ltd
Date: 3/06/25

Version	Date	Author	Reviewer	Comments
Version 1	3/06/25	Mandy Flowers (TI)	Charles Livesey (TI)	Submission to DCCEEW on 03/06/2025.

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Glossary

Abbreviation	Definition
Access track	(as defined in EPBC 2022/09295)
BT	Balance Tank
CEF	Construction Environmental Feature (as identified on CEP and CET)
CEMP	Construction Environmental Management Plan
CEP	Construction Environmental Plan
CET	Construction Environmental Table
Department	Department of Climate Change, Energy, the Environment and Water
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Formed access track	Gravel or sealed road as per ARRB Transport Research Road Classifications
ha	hectare
km	kilometre
MNES	Matters of National Environmental Significance
NBES	North Barker Ecosystem Services
NMIS	Northern Midlands Irrigation Scheme
Permit	EPBC 2022/09295
Project area	(as defined in EPBC 2022/09295)
Service locating	(as defined in EPBC 2022/09295)
The Project	Northern Midlands Irrigation Scheme
TI	Tasmanian Irrigation Pty Ltd
Unformed access track	Not a formed access track
WHMP	Weed and Hygiene Management Plan

1. Introduction

Project Description

The Northern Midlands Irrigation Scheme (NMIS/the Project) involves the construction of a new irrigation scheme to supply 25,500 megalitres of water per annum from the Poatina Tailrace to 40 landowners located across the suburbs of Cressy, Campbell Town, Epping Forest, and Ross, in the Northern Midlands region of Tasmania. The Project will allow the irrigation of approximately 128,400 ha.

The Project consists of the following key elements:

- Approximately 155 km of large diameter pipeline
- An offtake dam, to be constructed adjacent to the Poatina Tailrace
- Two balance tanks:
 - Poatina Balance Tank (Poatina BT), with an adjacent overflow dam
 - Valleyfield Balance Tank (Valleyfield BT)
- Access roads to both the Poatina BT and Valleyfield BT
- Three pump stations:
 - Valleyfield Pump Station
 - Poatina Pump Station
 - Barton Pump Station

Further detail on the Project is provided in Section 3 and Appendix A of the Construction Environmental Management Plan (CEMP).

Project Approvals

Tasmanian Irrigation Pty Ltd (TI) referred the Project to the Department of Climate Change, Energy, Environment and Water (the Department) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in 2022. The Project was determined to be a controlled action and was approved under the EPBC Act (EPBC 2022/09295) on 9 July 2024, subject to a number of conditions, including the development of a Construction Environmental Plan, which was approved by the Department 23 August 2024.

Condition 1 of EPBC 2022/09295 (the permit) dated 9 July 2024 stated that clearing and construction must not occur outside the project area and that any work involving 'breaking of ground' or 'any associated excavation work' is considered construction. Because of the potential for light and heavy vehicles to break ground while accessing the project area, the Permit and the CEMP were updated to exclude access tracks from clearing and construction definitions provided access routes are managed in accordance with the Access Track and Service Locating Methodology (this plan).

Service locating outside the project area is also excluded from clearing and construction definitions provided the activity is undertaken in accordance with this plan. While considered unlikely, there may be instances where services cannot be located in the project area and minor physical disturbance may be required to trace a service to the project area.

Conditions in the permit that are relevant to service locating and access tracks are provided in Table 1-1.

Table 1-1 Compliance with EPBC 2022/09295 relating to service locating and access tracks

Cond.	Condition Requirement	CEMP Reference	Summary of Commitment
1	The approval holder must not: a) clear outside of the project area b) construct outside of the project area.	Table 2.1 Appendix B – Construction Environmental Plans and Construction Environmental Tables Appendix R – Access Track and Service Locating Methodology	The Project will have a defined project area. No clearing or construction will occur outside of the project area. The project area will be communicated to construction personnel through the site-specific induction and will be identified on ArcGIS and in the CEPs for the Project, as well as being clearly demarked on site. Minor physical disturbance associated with service locating or access tracks will be managed in accordance with Appendix R – Access Track and Service Locating Methodology to ensure it complies with permit definitions and condition 16f(s) (see Section 4 for management measures relating to access tracks and service locating).
1A	The approval holder must not clear or construct outside of the construction corridor unless doing so: a) is consistent with the requirements of conditions 2 and 12, b) does not result in clearing in any area where a protected matter or habitat of a protected matter is located, unless clearing is undertaken in accordance with the Green and Gold Frog Habitat Management and Impact Mitigation Protocol and the Pre-clearance Check and Unanticipated Den Discovery Protocol, and c) it does not cause harm to a protected matter. Note: On the date of this variation, the known location of protected matters or habitat of protected matters (excluding Growling Grass Frog and Swan Galaxias) is represented in Attachment A – Maps 1-37	Table 2.1, Table 10 1, Table 10 2 Appendix B – Construction Environmental Plans and Construction Environmental Tables Appendix G – Green and gold frog habitat management and impact mitigation protocol Appendix E – Pre-clearance check and unanticipated den discovery protocol Appendix R – Access Track and Service Locating Methodology	TI will not clear or construct outside the construction corridor if it does not meet conditions 2 and 12 and will potentially cause harm to protected matters. Green and gold frog habitats and potential dens will be managed in accordance with Appendix G and E of the CEMP. Minor physical disturbance associated with service locating or access tracks will be managed in accordance with Appendix R – Access track and service locating methodology to ensure it complies with permit definitions and condition 16f(s) (see Section 4 for management measures relating to access tracks and service locating).
1B	The approval holder must submit, as part of the completion data required by condition 57, a shapefile showing the final location of the construction corridor, and locations of access tracks and service locating (where the latter occurs outside the project area).	Table 2.1	In accordance with condition 57, TI will submit a shapefile showing the final location of all construction and clearing undertaken as part of the Action, and locations of access tracks and service locating (where the latter occurs outside the project area).
2	The approval holder must not clear more than: a) 17.47 hectares (ha) of Tasmanian Devil, Eastern Quoll and Spotted-tail Quoll habitat b) 12 potential hollow-bearing trees c) 4 square metres (m2) of Matted Flax-lily.	Table 2.1	Access tracks and service locating outside the construction corridor will not impact Tasmanian Devil, Eastern Quoll and Spotted-tail Quoll habitat (i.e. optimal habitat). Habitat trees and EPBC listed threatened flora will also be avoided by undertaking surveys in accordance with Section 4 of this plan an implementing exclusion zones (where applicable).
3	If the approval holder detects the presence, where likely to be affected by the Action, of any protected matter or the habitat of any protected matter not previously reported to the department as part of the referral of this Action or in accordance with this condition, the approval holder must: a) notify the department in writing of the presence and likely extent of any protected matter or the habitat of any protected matter not previously reported to the department	Table 2.1	TI will notify DCCEEW in writing of the presence and likely extent of any protected matter or the habitat of any protected matter not previously reported to within 10 business days of detecting the presence of any protected matter or the habitat of any protected matter not previously reported to DCCEEW.

Cond.	Condition Requirement	CEMP Reference	Summary of Commitment
	within 10 business days of detecting the presence of any protected matter or the habitat of any protected matter not previously reported to the department, and b) not clear any area where the protected matter or the habitat of the protected matter is located unless: i) condition 2 provides for the clearing of that protected matter or habitat of that protected matter, and ii) clearing does not exceed the limit specified in condition 2 for that protected matter or habitat of that protected matter, and iii) clearing is in accordance with the Green and Gold Frog Habitat Management and Impact Mitigation Protocol and the Pre-clearance Check and Unanticipated Den Discovery Protocol.		
4	To mitigate harm to the Tasmanian Devil, Eastern Quoll and Spotted-tail Quoll within the project area, the approval holder must commence implementing the Pre-clearance Check and Unanticipated Den Discovery Protocol no later than the commencement of the Action and continue to implement the Pre-clearance Check and Unanticipated Den Discovery Protocol for any construction works until completion of the Action.	Table 2.1	Surveys and monitoring will be undertaken in accordance with the Pre-clearance and Den Discovery Protocol (Appendix E of the CEMP). Dens outside the construction corridor will not be decommissioned unless covered by a permit to take and taken in accordance with the protocol.
6	To mitigate harm to the Growling Grass Frog, within the project area, the approval holder must commence implementing the Green and Gold Frog Habitat Management and Impact Mitigation Protocol no later than the commencement of the Action and continue to implement the Green and Gold Frog Habitat Management and Impact Mitigation Protocol for any construction works until the completion of the Action.	Table 2.1	Pre-clearance surveys will be undertaken prior to commencing works and managed in accordance with the Green and Gold Frog Habitat Management and Impact Mitigation Protocol (Appendix G of the CEMP).
7	To mitigate harm to the Masked Owl within the project area, the approval holder must commence implementing the Habitat Tree (Hollow Bearing) Management Protocol no later than the commencement of the Action and continue to implement the Habitat Tree (Hollow Bearing) Management Protocol until the completion of the Action.	Table 2.1	Pre-clearance works will be undertaken prior to commencing works. Access tracks and service locating will avoid habitat trees. If tree protection zones cannot be avoided, works will be managed in accordance with the Habitat Tree (Hollow Bearing) Management Protocol (Appendix D of the CEMP).
8	8) To mitigate harm to the Tasmanian Wedge-tailed Eagle, the approval holder must: a) not conduct construction works within 1000 m of an active eagle nest during the eagle management constraint period unless the works are not visible from any active eagle nest, b) not conduct construction works within 500 m of an active eagle nest during the eagle management constraint period, except in the circumstances specified in condition 10), c) not clear or construct within 200 m of any tree that contains a Tasmanian Wedge-tailed Eagle nest, d) if any construction is to occur during the eagle management constraint period, undertake an aerial nest search to detect all active eagle nests within 1250 m of any area within the project area where construction is planned during the eagle management constraint period. e) not conduct planned maintenance within 500 m of any active eagle nest during the eagle management constraint period.	Table 2.1	Service locating and access during the eagle management constraint period will be undertaken in accordance with the full requirements of condition 8 of the permit and the Tasmanian Wedge-tailed Eagle Strategy (Appendix F of the CEMP). Access will be unrestricted on public roads within the eagle nest buffer zones. If access is required for unplanned repairs or maintenance during the eagle constraint period, access will only be allowed if managed in accordance with Condition 10 of the permit. In the unforeseen event that service locating is required outside the project area in active eagle nest zones, works will be undertaken in accordance with Condition 11.

Cond.	Condition Requirement	CEMP Reference	Summary of Commitment
10	In the event that unplanned repair work or maintenance must be undertaken during the eagle management constraint period, unless the repair work is urgently required to avert serious threat to life, property or the environment, the approval holder must: a) unless an aerial nest search was undertaken in accordance with the Fauna Technical Note 1: Eagle Nest Searching, Activity checking and Nest Management to detect all active eagle nests within 1250 m of the location, assume that all known nests are active eagle nests, b) ensure that, before entering the project area, all workers are aware of the location of all active eagle nests, c) ensure that no person or vehicle enters any area within 200 m of an active eagle nest, d ensure that no person looks directly towards an active eagle nest while they are within 1,000 m of an active eagle nest, e) ensure that, unless not visible from any active eagle nest, no heavy vehicles and no more than 2 light vehicles enter any area within 1,000 m of an active eagle nest and that, in any seven-day period, no vehicle enters within 1,000 m of an active eagle nest more than twice, f) ensure that no heavy vehicles, and no more than 2 light vehicles, enter any area within 500 m of an active eagle nest and that, in any seven-day period, or enters within 500m of an active eagle nest more than twice, g) ensure that, in any seven-day period, unless not visible from any active eagle nest, no vehicle remains within 1,000 m of an active eagle nest any longer than 30 minutes and that regardless of visibility, no vehicle remains within 500 m of an active eagle nest any longer than 30 minutes, unless a suitably qualified eagle specialist has provided prior written agreement to the use of vehicles for longer than 30 minutes, specifying the required safeguards and mitigation measures and justification that harm will not result from the presence of the vehicles for longer than 30 minutes, h) if safety requirements allow, instruct workers to not wear hi-visibility clothing while in the allowed proximity to an active eagle nest, i) ensure that no vehicle is parked within sight of an active eagle nest. j) ensure workers always remain within 5 m of one another (where practical) and no work breaks are conducted while within 500 m of an active eagle nest.		If access is required for unplanned repairs or maintenance during the eagle constraint period, access will only be allowed if managed in accordance with Condition 10 of the permit.
11	In the event that unplanned repair work or maintenance must be undertaken during the eagle management constraint period, and that repair work is urgently required to avert serious threat to life, property or the environment, the approval must adhere to the requirements of condition 8) as closely as possible while giving priority to avert the serious threat to life, property or the environment.	Table 2.1	If access is required for unplanned repair or maintenance and that repair work is urgently required to avert serious threat to life, property or the environment, access will be managed in accordance with Condition 8 of the permit as closely as possible.
16f(a)	The CEMP must include measures to protect, repair and mitigate harm to protected matters including, but not limited to, the mitigation measures proposed within the Preliminary Documentation and the following: f(a) a procedure to undertake ecological surveys for protected matters in proposed impact areas outside the project area, and for ensuring that service locating and the	Table 2.1	The Access Track and Service Locating Methodology was developed to satisfy Condition 16f(a). The environmental management measures in Section 4 have been developed to ensure the use of any access tracks or service locating outside the Project area does not result in any harm to protected matters.

Cond.	Condition Requirement	CEMP Reference	Summary of Commitment
	establishment and use of any access tracks does not result in any harm to protected matters		Ecological surveys of proposed access tracks outside the project area will be undertaken prior to establishing an access route. Access and service locating will only be allowed if involves minor physical disturbance and will not harm protected matters. In accordance with Condition 3, TI will notify the Department if new protected matters or habitat of protected matters are identified during surveys that are likely to be affected by the Action and have not been previously reported to the Department.

Permit Definitions

The following permit definitions are relevant to access tracks and service locating (noting that definitions only allow for minor disturbance).

Access track - *a route for heavy vehicles and/or light vehicles to access the project area where the route is not constructed to approved engineering standards* (EPBC 2022/09295, page 17).

Service locating - *the process of identifying and mapping the location of buried utilities such as pipes, cables, wires and other infrastructure using specialized equipment and techniques to ensure safety and prevent damage during excavation and construction* (EPBC 2022/09295, page 23).

Clear or **clearing** - *does not include minor cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation required for **service locating** and **access tracks** if undertaken in accordance with Appendix R - Access Track and Service Locating Methodology of the approved CEMP* (EPBC 2022/09295, page 17).

Construction - *does not include minor physical disturbance necessary to undertake **service locating** or install an **access track*** (EPBC 2022/09295, page 18).

Objectives

Service locating and temporary access tracks were not addressed in the Preliminary Documentation, CEMP or the approved Permit dated 9 July 2024. The purpose of this methodology is to address the relevant permit conditions in the revised permit and provide an overview of potential impacts and risks associated with access tracks and service locating to ensure compliance with the permit and CEMP.

A description of service locating and temporary access tracks in relation to the Project is provided in Section 2.

2. Description of Activities

Service Locating

Service locating must be undertaken prior to clearing and construction and typically involves the following process:

1. Locate the service using a handheld locator.
2. Once located, use Hydro Vacuum Excavation (NDD) to safely expose the service. This system uses high-pressure water to break through soil and create a slurry that is vacuumed from the excavation area into the truck's debris tank. The process generally involves excavating a 300mm (W) x 600mm (D) trench to expose the service, with the length of the excavated area extending across the Project's pipeline centreline, which is approximately 1.5m wide. Sometimes they may need to excavate deeper depending on the depth of the service (see pictures 1-3 below).
3. If a service cannot be traced, historical satellite imagery is reviewed to help identify where the service may be located. If imagery shows a trench, the NDD truck will proceed to excavate at the approximate location within the Project area.

Normally, services can be identified within the construction corridor, however, there may be occasions when trace wires are absent, or services cannot be accurately detected within the Project area. In the event a service cannot be located in the Project area, the following process would be followed:

1. Locate the nearest existing service marker post (if available).
2. Pothole to the service using the NDD truck (this generally involves excavating a small hole less than 0.5m²).
3. Once located, assess and survey the service using a total station and install a marker post that shows service details (e.g. type, depth).
4. After tracing the service, backfill the trench with sand and remove marker post by hand after completion of works.
5. If the service cannot be traced back to the construction corridor using a tracewire or similar, step three above may need to be repeated at 20-50 metre intervals between successful location points and the pipeline crossing location within the construction corridor.

Temporary Access Tracks

Accessing the site from entirely from within the Project area is not always possible. Existing surface access tracks are generally not available, meaning vehicles and machines must track through paddocks in the same manner a landholder would use to access the property. Access might also be restricted by waterways or infrastructure (e.g. railway lines) or the Project may need to access water bodies outside the existing survey area for the purpose of pipeline pressure testing and emergency response.

Restricting access also has the potential to affect a landholder's ability to manage their land because they have to wait until sections have been completed and construction access is no longer required. If the construction corridor can be accessed via other access points, this will help minimise construction times and allow landholders to resume farm operations in some sections of the pipeline.

3. Potential Impacts and Risks

The objective of this methodology is to outline clear measures to avoid, minimise, and manage the potential for the Project to result in harm to relevant MNES protected under the EPBC Act. Harm means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action (i.e. the Project).

Protected Matters

As per Section 4 of the CEMP, MNES that have been identified in the Project area include the following:

Threatened fauna

- Eastern quoll (*Dasyurus viverrinus*)
- Green and gold frog (*Litoria raniformis*)
- Spotted-tail quoll (*Dasyurus maculatus maculatus*)
- Swan galaxias (*Galaxias fontanus*)
- Tasmanian devil (*Sarcophilus harrisii*)
- Tasmanian masked owl (*Tyto novaehollandiae castanops*)

- Tasmanian wedge-tailed eagle (*Aquila audax fleayi*)

Threatened flora

- Matted flax-lily (*Dianella amoena*)
- Grassland greenhood (*Pterostylis ziegeleri*)
- Propeller plant (*Stenanthemum pimeleoides*)

Potential Impacts

Potential impacts of the Project on MNES as are discussed in detail in the Preliminary Documentation (NBES, 2024) and section 9 of the CEMP. In general, the main impact of service locating and access tracks outside the Project area is temporary ground disturbance resulting from minor excavation (service locating) and vehicles or machinery tracking through paddocks or unsurfaced pastoralist routes to access the Project area.

Potential impacts of service locating and access tracks will be managed by undertaking pre-clearance surveys prior to commencing works and ensuring impacts are avoided or mitigated by implementing measures outlined in the CEMP and Table 3-2 and Section 4 of this methodology.

Risk Assessment

Potential impacts to MNES from service locating and access tracks outside the Project area are considered to be low risk following the application of mitigation measures outlined in in Table 3-2 and Section 4.

Risk was assessed using the risk rating table in the Environmental Management Plan Guidelines, as shown in Table 3-1 below (DCCEEW, 2024).

Table 3-1 Risk rating (DCCEEW, 2024)

	Consequence				
	Minor	Moderate	High	Major	Critical
Highly Likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

Table 3-2 Risk assessment for potential impacts to relevant MNES following application of management and mitigation measures

MNES	Potential Impact (CEMP)	Assessment (Access Tracks and Service Locating)	Mitigation Measures	Residual likelihood	Residual consequence	Residual risk
Threatened fauna species						
Tasmanian devil, eastern quoll and spotted-tail quoll	Potential habitat disturbance (temporary)	Minor ground disturbance associated with vehicles and machinery tracking through paddocks or unsurfaced pastoralist routes to access the Project area. Higher likelihood in drainage lines or areas of lower elevation where conditions are more likely to be wet and boggy during the wetter months or when landowners are irrigating. Access and service locating is not allowed in optimal habitat outside the construction corridor.	Ecological surveys must be undertaken for service locating and unformed access tracks ¹ (i.e. not sealed or gravelled) outside the Project area. Surveys for service locating and access may need to extend into the Project area depending on whether existing survey requirements in the Project area have been met (see Section 4 for survey requirements). Service locating and access cannot occur if these activities may result in harm to protected matters (including optimal habitat) or threatened species not covered by a permit (see Section 4 for detailed management measures).	Unlikely	Minor	Low
	Permanent habitat loss (foraging)	Minor physical disturbance associated with access tracks and service locating but will not result in permanent habitat loss.	If deep tyre ruts are formed on access tracks outside the Project area impacts will be managed in accordance with Appendix M – Rehabilitation and Restoration in the CEMP, in consultation with the landholder.	Rare	Minor	Low
	Increased probability of roadkill	Service locating and access tracks are unlikely to result in an increased risk of roadkill given access typically involves tracking through paddocks and unsurfaced pastoralist tracks where speed is significantly reduced.	No further mitigation measures required (access on engineered roads is covered by Appendix H – Roadkill Strategy in the CEMP).	Rare	Minor	Low
Tasmanian wedge-tailed eagle	Disturbance of an active nest during breeding season.	While access and service locating are not considered clearing or construction (provided they meet the permit definitions), disturbance is considered unlikely given these activities are timed with construction works which must comply with condition 8 of the permit.	Service locating and access during the eagle management constraint period will be undertaken in accordance with the full requirements of condition 8 of the permit and the Tasmanian Wedge-tailed Eagle Strategy (Appendix F of the CEMP). Access will be unrestricted on public roads within the eagle nest buffer zones. If access is required for unplanned repairs or maintenance during the eagle constraint period, access will only be allowed if managed in accordance with Condition 10 of the permit.	Unlikely	Minor	Low

¹ As per the ARRB Transport Research Road Classification in the List (Class C2 road = unsealed and not gravelled road and Class D track = unformed track).

MNES	Potential Impact (CEMP)	Assessment (Access Tracks and Service Locating)	Mitigation Measures	Residual likelihood	Residual consequence	Residual risk
			In the unforeseen event that service locating is required outside the project area in active eagle nest zones, works will be undertaken in accordance with Condition 11.			
Green and gold frog	Potential habitat disturbance	Access and service locating may result in minor ground disturbance in drainage lines as a result of vehicles and machinery tracking through paddocks or unsurfaced pastoralist routes in wet or muddy conditions. No green and gold frogs have been recorded in the Project area since construction commenced in August 2024, and the likelihood of finding green and gold frogs and suitable habitat is considered low.	Impacts to green and gold frog will be managed in accordance with the Appendix G - Green and gold frog protocol in the CEMP. Green and gold frog surveys outside the project area must be undertaken during threatened flora surveys, with ecologists to confirm if green and gold frogs or suitable frog habitat exists. Ecologists must also survey green and gold frog protocol areas in the Project area that may be impacted but have not been surveyed as part of construction corridor surveys. Potential impacts to other protected frogs must also be considered in pre-clearance checklist. Sediment and erosion control measures must be installed in areas where ground disturbance has the potential to impact water quality, including standing water that was found to contain frogs during surveys or is considered suitable frog habitat.	Rare	Minor	Low
	Potential habitat loss	Access tracks and service locating will not result in permanent habitat loss.	If deep ruts are formed on access tracks outside the project area impacts will be managed in accordance with Appendix M – Rehabilitation and Restoration in the CEMP, in consultation with the landholder.	Rare	Minor	Low
	Introduction of chytrid fungus	Potentially introduce chytrid fungus via vehicles or equipment.	Implement environmental controls in Appendix J – Weed and Hygiene Management in the CEMP and follow best practice guidelines (Keeping it Clean – A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens, 2010).	Unlikely	Moderate	Low
	Downstream impacts of water quality	Access tracks could potentially impact water quality if ground disturbance results in soil erosion and increased turbidity.	Sediment and erosion control measures must be installed in areas where ground disturbance has the potential to impact water quality, including standing water that contains frogs or is considered suitable frog habitat (to be confirmed during pre-clearance surveys). If access tracks involve crossing a waterway or drainage line, works must be managed in	Unlikely	Moderate	Low

MNES	Potential Impact (CEMP)	Assessment (Access Tracks and Service Locating)	Mitigation Measures	Residual likelihood	Residual consequence	Residual risk
			accordance with Appendix L – Construction Water Quality Management Plan in the CEMP.			
Swan galaxias	Downstream impacts of water quality	Swan galaxias was identified in Dairy Creek (CEP WC-13 and WC-14 at N1b~2900). Other water courses that have been identified as potential swan galaxias habitat include CEP watercourses WC- 24 at N1b_5000, WC-121 at N7_9250 and WC-143 at B1_12000.	Service locating and development of access tracks outside the project area must not occur within 30m of CEP watercourses that are considered to be suitable swan galaxias habitat (i.e. WC-13, WC-14, WC-24, WC-121 and WC-143), as determined during swan galaxias surveys that were undertaken from August to September 2024.	Rare	Minor	Low
Tasmanian masked owl	Removal of up to 12 potential habitat trees	Habitat trees will not be cleared for the purpose of service locating and access tracks.	Ecological surveys must be undertaken for service locating and unformed access tracks outside the Project area. If potential habitat trees are identified within 20m of an access track or service locating area, trees must be entered into ArcGIS and managed in accordance with Appendix D – Habitat tree management protocol in the CEMP. No clearing of habitat trees is allowed for the purpose service locating or development of access tracks outside the Project area.	Rare	Minor	Low
Threatened fauna (all)	Inadvertent impact to unidentified habitat for threatened species.	Minor ground disturbance associated with vehicles and machinery tracking through paddocks or unsurfaced pastoralist routes to access the Project area.	Ecological surveys must be undertaken for service locating and unformed access tracks outside the Project area in accordance with Section 4. Service locating and access cannot occur if these activities may result in harm to protected matters or threatened species not covered by a permit.	Unlikely	Moderate	Low
	Fauna entrapment in trenches	Potential risk of fauna entrapment if service trenches are left open overnight.	Trenches associated with service locating outside the construction corridor area must be backfilled on the day of locating the service. Trenches that are associated with service locating and pipeline trenching in the construction corridor will be managed in accordance with the CEMP (Table 2.1 and 10.1).	Unlikely	Moderate	Low
	Impacts to water quality	Access and service locating may result in minor ground disturbance in drainage lines as a result of vehicles and machinery tracking through paddocks or unsurfaced pastoralist routes in wet or muddy conditions. This could potentially impact frog	Sediment and erosion control measures must be installed in areas where ground disturbance has the potential to impact water quality, including standing water that contains frogs or is considered suitable frog habitat (to be confirmed during pre-clearance surveys).	Rare	Minor	Low

MNES	Potential Impact (CEMP)	Assessment (Access Tracks and Service Locating)	Mitigation Measures	Residual likelihood	Residual consequence	Residual risk
		habitat in adjacent standing water or downstream if drainage lines are flowing.	If access tracks involve crossing a waterway or drainage line, works must also be managed in accordance with Appendix L – Construction Water Quality Management Plan in the CEMP.			
Threatened flora species						
Grassland greenhood Propeller plant Matted flax-lily	Inadvertent clearance of threatened flora species	Access and service locating outside the Project area could impact threatened flora if surveys are not undertaken prior to commencing these activities.	Ecological surveys must be undertaken for service locating and unformed access tracks outside the Project area in accordance with Section 4. Exclusion zones must be put in place if threatened flora is identified during surveys and is not covered by a permit to take* *Condition 2 of the permit only allows for the removal of up to 4m ² of matted flax-lily at the location shown in the permit (approximate location is N4_2550). A minimum 5m exclusion zones must be in place for other EPBC listed species, including the propeller plant (<i>Stenanthemum pimeleoides</i>) and grassland greenhood (<i>Pterostylis ziegelei</i>).	Unlikely	Moderate	Low
	Potential introduction of weed species	While access tracks outside the Project area will primarily be within the same property boundaries as the Project area, there is potential for weeds to be spread via vehicles or equipment.	Service locating and unformed access tracks outside the Project area must be managed in accordance with the Appendix J – Weed and Hygiene Management Plan.	Unlikely	Moderate	Low

4. Management & mitigation measures

Environmental management measures for access tracks and service locating are described below with further detail provide in Table 4-1 and Table 4-2.

Access tracks

The following process must be followed if the Project area needs to be accessed from outside the Project area where the proposed route is not a formed road (i.e. gravel or sealed road) and may involve minor ground or vegetation disturbance (as defined in the permit):

1. Contractor to review proposed access route to avoid optimal habitat and eagle nest zones as per Table 4 1.
2. Enter proposed access route into GIS if optimal habitat has been avoided and access can be undertaken in accordance with eagle nest requirements in Table 4 1.
3. Ecologist to survey proposed access track as per Table 4-1.
4. Ecologist to complete survey checklists, provide recommendations and oversee the implementation of exclusion zones (if required).
5. Adjust final access track route in consultation with the ecologist to avoid exclusion zones (where applicable).
6. Contractor to complete pre-clearance checklist for the proposed access track.
7. TI to review pre-clearance checklist to ensure compliance with this plan and the CEMP.
8. Contractor to clearly demarcate the approved access track boundary before commencing works, ensuring it is consistent with the area that was surveyed.
9. Monitor compliance with this plan as part of weekly inspections and CEMP audits.

Service Locating

The following process must be followed if service locating outside the Project area is required:

1. Contractor to review potential impact area and confirm if the location is in optimal habitat or an eagle nest zone.
2. If the proposed location will not impact optimal habitat and can be undertaken in accordance with condition 8 of the permit, the proposed impact area or 'zone' in which service locating may be undertaken must be entered into ArcGIS (note: this includes the area from the marker post to the construction corridor).
3. Manage access routes in accordance with Table 4-1.
4. Ecologist to survey the proposed impact area (and buffers) in accordance with Table 4-2.
5. Ecologist to complete survey checklists, provide recommendations and oversee the establishment of exclusion zones (if required).
6. Adjust service locating route to avoid impacting exclusion zones (where applicable).
7. Contractor to complete pre-clearance checklist for the proposed service locating area.
8. TI to review pre-clearance checklist to ensure compliance with this plan and the CEMP.
9. Contractor to clearly demarcate the approved access track boundary before commencing works, ensuring it is consistent with the area that was surveyed.
10. Disturbed areas associated with service locating must be picked up and entered into ArcGIS.
11. Monitor compliance with this plan as part of weekly inspections and CEMP audits.

Table 4-1 Summary of Management Requirements for Access Tracks

Step	Summary	Detailed Instructions	Responsibility	Relevant Protocols/Plans
1	Review proposed access route for optimal habitat and eagle nest zones	The following restrictions apply to access tracks: 1. Access cannot occur within optimal habitat outside the construction corridor (unless on a formed road). 2. Access during the eagle management constraint period must be managed in accordance with condition 8 of the permit and the Tasmanian Wedge-tailed Eagle Strategy (Appendix F of the CEMP). 3. If access is required for unplanned repairs or maintenance during the eagle constraint period, access will only be allowed if managed in accordance with Condition 10 of the permit. Access is unrestricted on public roads within eagle nest buffer zones.	Contractor	CEMP Appendix F – Tasmanian Wedge-tailed Eagle Strategy Table 2.1, 10.1 and 10.2 of the CEMP.
2	Enter proposed access route into GIS	Enter proposed access route into GIS if optimal habitat outside the construction corridor will not be impacted and access can be undertaken in accordance with condition 8 of the permit (to assist with planning and undertaking surveys).	Contractor	Not applicable
3	Undertake ecological survey of access route and establish exclusion zones where required.	A suitably qualified ecologist must undertake surveys on unformed access tracks in accordance with the following: a. Threatened flora and weeds – survey from the start of the proposed access track (including a 10m buffer) to the Project area (i.e. existing survey area). All threatened flora outside the construction corridor must be avoided unless covered by a permit to take. New weed locations must be entered into GIS and managed in accordance with the Weed and Hygiene Management Plan. b. Potential dens – survey from the start of the proposed track to the existing den protocol area in the Project area (labelled ‘Unanticipated Den Discovery Protocol’ and shown as a blue dashed line in Appendix B of the CEMP and the Project’s NMIS Construction Planning Map). Surveys and monitoring must be undertaken in accordance with the Appendix E of the CEMP (Pre-clearance and den discovery protocol). Dens outside the construction corridor cannot be decommissioned unless covered by a permit to take and taken in accordance with the protocol. c. Green and gold frog habitat – survey from the start of the proposed access track (including a 10m buffer) to the Project area to confirm if frogs or suitable frog habitat are present in or near the proposed route. Unsurveyed protocol areas in the Project areas must also be surveyed if they may be impacted by the proposed route (i.e. any green and gold frog protocol areas that are mapped in the Project area but are outside the construction corridor). Access tracks must not impact frogs and potential habitat unless covered by a permit to take. If covered by a permit, green and gold frogs must be taken in accordance with Appendix G of the CEMP (Green and Gold Frog Protocol). d. Habitat trees – enter any new habitat trees within 20m of the proposed access track into GIS and implement tree protection zones if required. Tree protection zones must be avoided otherwise Appendix B of the CEMP applies (Habitat tree management protocol).	Suitably Qualified Ecologist Contractor (exclusion zones)	Table 2.1, 10.1 and 10.2 of the CEMP. Condition 2, CEMP. CEMP, Appendix E – Pre-clearance check CEMP, Appendix G – Green and Gold Frog Protocol (if covered by a permit to take) CEMP, Appendix J – Weed and Hygiene Management Plan

Step	Summary	Detailed Instructions	Responsibility	Relevant Protocols/Plans
		Ecologist must oversee the establishment of exclusion zones to ensure they are implemented in accordance with the CEMP and relevant protocols. Exclusion zones must be cleared demarcated with exclusion signage to prevent unauthorised entry.		
4	Adjust the access route (if required)	The access route must avoid impacts to protected matters and state listed threatened flora and fauna unless undertaken in accordance with a permit. Any access route adjustments must be done in consultation with the ecologist to ensure survey requirements have been met and exclusion zones are in place prior to commencing work (if required).	Suitably Qualified Ecologist Contractor	As above (Step 3)
5	Complete survey checklist and pre-clearance checklist	A survey and pre-clearance checklist must be completed and reviewed by TI prior to commencing works to ensure compliance with the CEMP and this methodology.	Suitably Qualified Ecologist Contractor TI	CEMP, Table 10.2 and 10.2. CEMP, Appendix D – Habitat tree (hollow-bearing) management protocol CEMP, Appendix E – Pre-clearance check CEMP Appendix F – Tasmanian Wedge-tailed Eagle Strategy CEMP, Appendix G – Green and Gold Frog Protocol (if covered by a permit to take) CEMP, Appendix J – Weed and Hygiene Management Plan CEMP, Appendix K – Drainage erosion and sediment control plan CEMP, Appendix L – Construction water quality management plan CEMP, Appendix R – Access track and service locating methodology
6	Clearly demarcate the approved access track boundary before commencing works	The proposed access track must be clearly demarcated prior to commencing works and be consistent with access tracks that was surveyed as part of pre-clearance surveys (note: a formed access track does not need to be demarcated).	Contractor	CEMP, Appendix R – Access track and service locating methodology
7	Monitor compliance	Monitor compliance with environmental checklists as part of weekly environmental inspections and CEMP audits.	Contractor TI	CEMP, Appendix R – Access track and service locating methodology CEMP Table 2.1, 5.1, 6.1, Table 10.2

Table 4-2 Summary of Management Requirements for Service Locating

Step	Summary	Detailed Instructions	Responsibility	Relevant Protocols/Plans
1	Review proposed access route and eagle nest zones and optimal habitat areas	Service locating cannot occur within optimal habitat and eagle nest zones during the eagle management constraint period unless undertaken in accordance with condition 8 of the permit and Appendix F of the CEMP.	Contractor	CEMP Appendix F – Tasmanian Wedge-tailed Eagle Strategy Table 2.1, 10.1 and 10.2 of the CEMP.
2	Enter proposed access route into GIS	Enter proposed impact area into GIS if optimal habitat outside the construction corridor will not be impacted, and service locating can be undertaken in accordance with condition 8 of the permit.	Contractor	Not applicable
3	Review access routes	Access routes must be managed in accordance with Table 4-1.	Contractor	Table 4.1
4	Undertake ecological survey of the proposed impact area or search zone	A suitably qualified ecologist must undertake service locating surveys in accordance with the following: Threatened flora and weeds – survey the proposed impact area / service locating route (including a 10m buffer) from the service marker post to the to the Project area (i.e. existing survey area). All threatened flora outside the construction corridor must be avoided unless covered by a permit to take. New weed locations must be entered into GIS and managed in accordance with the Weed and Hygiene Management Plan. Potential dens – survey from the start of service marker post to the existing den protocol area in the Project area along the proposed service locating impact route (labelled ‘Unanticipated Den Discovery Protocol’ and shown as a blue dashed line in Appendix B of the CEMP and the Project’s NMIS Construction Planning Map). Surveys and monitoring must be undertaken in accordance with the Appendix E of the CEMP (Pre-clearance and den discovery protocol). Dens outside the construction corridor cannot be decommissioned unless covered by a permit to take and taken in accordance with the protocol. Green and gold frog habitat – survey the proposed impact area / service locating route (including a 10m buffer) from the service marker post to the to the Project area (i.e. existing survey area) to confirm if frogs or suitable frog habitat are present in or near the proposed service locating route or impact area. Unsurveyed protocol areas in the Project areas must also be surveyed if they may be impacted by service locating (i.e. any green and gold frog protocol areas that are mapped in the Project area but are outside the construction corridor). Service locating must not impact frogs and potential habitat unless covered by a permit to take. If covered by a permit, green and gold frogs must be taken in accordance with Appendix G of the CEMP (Green and Gold Frog Protocol). Habitat trees – enter any new habitat trees within 20m of the proposed impact area / service locating route into GIS and implement tree protection zones if required. Tree protection zones must be avoided otherwise Appendix B of the CEMP applies (Habitat tree management protocol). Ecologist must oversee the establishment of exclusion zones to ensure they are implemented in accordance with the CEMP and relevant protocols. Exclusion zones must be cleared demarcated with exclusion signage to prevent unauthorised entry.	Suitably Qualified Ecologist Contractor (exclusion zones)	Table 2.1, 10.1 and 10.2 of the CEMP. Condition 2, CEMP. CEMP, Appendix E – Pre-clearance check CEMP, Appendix G – Green and Gold Frog Protocol (if covered by a permit to take) CEMP, Appendix J – Weed and Hygiene Management Plan

Step	Summary	Detailed Instructions	Responsibility	Relevant Protocols/Plans
5	Adjust proposed impact area /search zone (if required)	Service locating must avoid impacts to protected matters and state listed threatened flora and fauna unless undertaken in accordance with a permit. All route adjustments must be done in consultation with the ecologist to ensure survey requirements have been met and exclusion zones are in place prior to commencing work (if required).	Suitably Qualified Ecologist Contractor	As above (Step 3)
6	Complete survey checklist and pre-clearance checklist	A survey and pre-clearance checklist must be completed and reviewed by TI prior to commencing works to ensure compliance with the CEMP and this methodology.	Suitably Qualified Ecologist Contractor TI	CEMP, Table 10.2 and 10.2. CEMP, Appendix D – Habitat tree (hollow-bearing) management protocol CEMP, Appendix E – Pre-clearance check CEMP Appendix F – Tasmanian Wedge-tailed Eagle Strategy CEMP, Appendix G – Green and Gold Frog Protocol (if covered by a permit to take) CEMP, Appendix J – Weed and Hygiene Management Plan CEMP, Appendix K – Drainage erosion and sediment control plan CEMP, Appendix L – Construction water quality management plan CEMP, Appendix R – Access track and service locating methodology
7	Clearly demarcate the approved access track boundary before commencing works	The proposed access track must be clearly demarcated prior to commencing works and be consistent with access tracks that was surveyed as part of pre-clearance surveys.	Contractor	CEMP, Appendix R – Access track and service locating methodology
8	Pick up the final disturbance areas and enter into ArcGIS	The impact area must be picked up and managed with disturbance records in ArcGIS.	TI	Not applicable
8	Monitor compliance	Monitor compliance with environmental checklists as part of weekly environmental inspections and CEMP audits.	Contractor TI	CEMP, Appendix R – Access track and service locating methodology CEMP Table 2.1, 5.1, 6.1, Table 10.2

5. Auditing and Compliance

Reporting

Compliance with the Access Track and Service Locating Methodology will be outlined in:

- Pre-clearance checklists.
- Daily site diaries.
- Weekly inspection checklists.
- Monthly contractor reports summarising outcomes of weekly inspections (provided monthly to TI).

Auditing

The Access Track and Service Locating Methodology will be reviewed as part of CEMP audits to determine appropriateness of controls and if additional controls or updates to the Access Track and Service Locating Methodology are required. The frequency of audits is outlined in Section 11 of the CEMP.

Non-compliances

If non-compliance is identified during works or site inspections, work must cease, and an assessment undertaken to confirm the appropriateness of controls and if additional controls are required. Any non-compliances with the permit (EPBC 2022/09295) must be reported in accordance with the CEMP.

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