NATIONAL INTERMODAL

Beveridge Intermodal Precinct Stage 1A

Action Management Plan

EPBC 2023/09693

2025 Merriang Road, Beveridge, Victoria

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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 [redacted]

Full name (please print) [redacted]

Organisation (please print) [redacted]

Date [redacted]

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Abbreviations, Acronyms, and Definitions

Term	Definition
AMP	Action Management Plan
ARTC	Australian Rail Track Corporation
BCS	Bioregional Conservation Status
BEPM	Best Practice Environmental Management
CaLP Act	Catchment and Land Protection Act 1994
CEMP	Construction Environmental Management Plan
CMA	Catchment Management Authority
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Federal)
D&C	Design and Construct
DEECA	Department of Energy, Environment and Climate Action (State)
EE Act	Environment Effects Act 1978
EMF	Environmental Management Framework
EMRs	Environmental Management Requirements
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EVC	Ecological Vegetation Class
FFG Act	Flora and Fauna Guarantee Act 1988
ha	hectares
Herne Swamp	Also, Hearne's Swamp, Hernes Swamp, Hearne Swamp. For the purposes of this report, considered the extent of DEECA mapped wetland located in the northern extent of the study area. The buffer area is a 200m buffer applied to the Herne Swamp DEECA mapped wetland.
km	kilometres
MNES	Matters of National Environmental Significance (as defined under the EPBC Act)
MSA	Melbourne Strategic Assessment
No-Go Zones	No Go Zones protecting environmental values, mapped in Figure 2-1
OEMP	Operational Environmental Management Plan
PMST	Protected Matter Search Tool
Proposed Action	Stage 1A of the Beveridge Intermodal Precinct Project
Proposed Action Area	Where vegetation removal and soil disturbance are likely to occur to construct the Stage 1A project.
SHWTLP	Seasonal Herbaceous Wetland (Freshwater) of the Temperate Lowland Plains
SIC	Significant Impact Criteria (as defined under the EPBC Act)
Study area	The area surveyed on ground during the flora and fauna assessment by Biosis, EHP and Arcadis collectively
TEC	Threatened Ecological Community
VGED	Victorian Grassland Earless Dragon (*Tympanocryptis pinguicolla*)

1 Introduction and Purpose

On the 4th June 2024, the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) ('the Department') advised that Stage 1A of the Beveridge Intermodal Precinct Project (the Proposed Action) is a Controlled Action and that works require approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) ('the Act') as the action has the potential to impact listed threatened species and communities (sections 18 and 18A of the Act). For the purposes of the EPBC Act, the Proposed Action is also deemed a Commonwealth Action (section 28 of the Act). The Department advised that the Proposed Action will be assessed by Preliminary Documentation.

The purpose of this Action Management Plan (AMP) is to provide additional information on management and mitigation measures that will avoid and minimise impacts for the Proposed Action. The mitigation measures are detailed in Section 5 of this AMP. The matters for which this AMP has been prepared are listed below:

- The Victorian Grassland Earless Dragon (*Tympanocryptis pinguicolla*) (VGED), which is Critically Endangered. Further habitat assessment of the VGED has determined that the site is unlikely to support the species on the basis of previous disturbance and lack of suitable habitat features.
- The direct and indirect impacts to the environment of Herne Swamp wetland (Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains (SHWTLP) EPBC Act listed Threatened Ecological Community (TEC)) and the associated waterways.
- This AMP has been prepared to address and mitigate potential impacts to the values listed above and to support the delivery of the proposed works.

This AMP has been prepared by a suitably qualified ecologist and in accordance with the Department's Environmental Management Plan Guidelines (2024), available at: www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines. Where additional requirements are stipulated in the EPBC Act approval conditions this plan will be updated to address these.

This plan does not address the broader environmental management requirements of the site. This is addressed separately in the Environmental Management Framework (EMF), Construction Environment Management Plan (CEMP) and Operational Environment Management Plan (OEMP) prepared by National Intermodal and to be approved by the Victorian Minister for Planning in accordance with the proposed planning approval for the Proposed Action,

2 Project Information

2.1. Project Location and Overview

The Proposed Action is located within the National Intermodal Landholding at 2025 Merriang Road, Beveridge, Victoria, and encompasses approximately 1,100 hectares (ha) of private land north of Beveridge Road.

The Proposed Action Area comprises an approximately 67 ha site contained in the Beveridge Intermodal Precinct Site.

Figure 2-1 shows the location of the proposed action within the above context and the area to which this report applies.

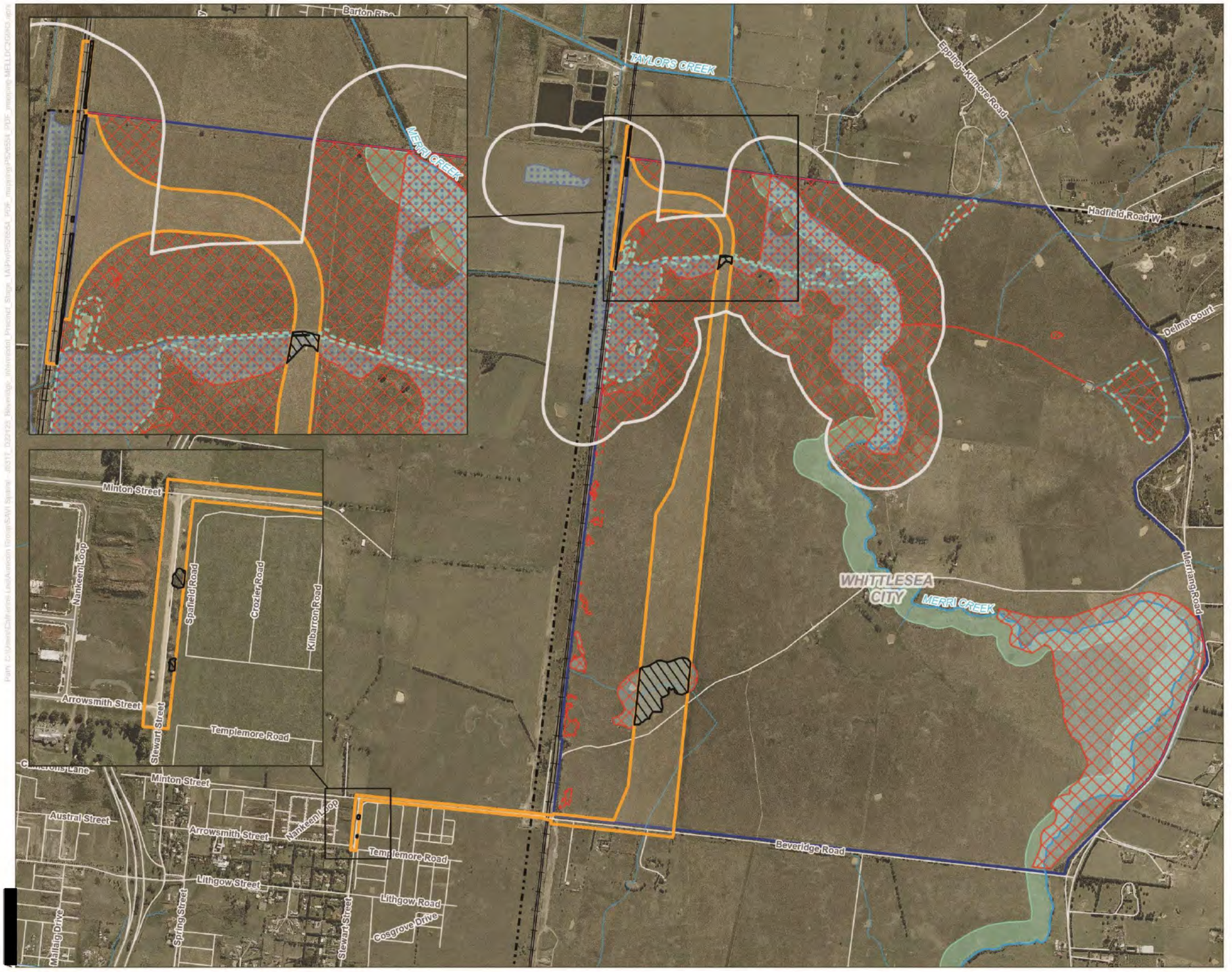


Figure 2-1 Location of Proposed Action Area and No Go Zones

2.2. Site Context and description of Study Area

The Study Area occurs within a largely cleared and relatively flat, rural landscape at the Melbourne Urban Growth Boundary approximately 40 kilometres (km) north of Melbourne CBD. The Merri Creek runs through the Study Area from the northern to the southern boundary. The creek corridor is zoned Rural Conservation Zone 1, is designated as a conservation area under the MSA (CA34) and provides connectivity between the Study Area and the surrounding landscape. The Australian Rail Track Corporation (ARTC) rail corridor runs along the western boundary of the Study Area.

Land to the north, south and west of the Study Area is currently used for agricultural purposes, however, it is within the Melbourne Urban Growth Boundary and is intended for future urban development. Land to the east of the Study Area is predominantly being utilised for agricultural purposes and zoned Green Wedge and Farming Zone. The proposed future use of the Proposed Action Area will exclude livestock (i.e. cattle) from sensitive areas and create an intermodal precinct comprising rail and road connections, hardstand and supporting amenities.

Private properties and roadsides to the east of the Study Area support a significant amount of remnant vegetation that connects (with minimal disruptions) to Kinglake National Park. However, there is no longer any direct connectivity between the Study Area and Kinglake National Park due to historical clearance of native vegetation.

The Study Area comprises undulating pasture and rocky outcrops which have been highly modified due to livestock grazing. Nevertheless, a range of ecological features also occur within the Study Area, including native patch vegetation, Herne Swamp (which forms part of the EPBC Act listed TEC SHWTLP) and small and large scattered trees.

The hydrology of the Study Area is characterized by 14 small farm dams, three of which are located with the Proposed Action Area and utilised for stock watering. A tributary of Merri Creek runs diagonally from northwest to southeast across the Study Area. A man-made drainage line, with a grade of less than 0.05%, runs from Herne Swamp to Merri Creek in an east-west direction within the northwestern portion of the Study Area.

In terms of road networks surrounding the Study Area, the M31 Hume Freeway is the closest national inter-city arterial route to the Study Area and carries the vast majority of north-south bound road freight passing Beveridge.

The proposed primary heavy vehicle access route between the intermodal terminal and the Hume Freeway follows the alignment of the Old Hume Highway, Minton Street and Beveridge Road and is the shortest and most appropriate route. This defined and relatively short route also allows for a greater control of operational vehicles for the Proposed Action.

2.3. Scope of Works

The Proposed Action involves the construction and operation of a permanent rail connection to the existing ARTC rail freight corridor, together with sidings, a basic intermodal terminal and associated infrastructure for the initial stage of the Beveridge Intermodal Precinct. The Proposed Action will have the ability to operate 24 hours a day, 7 days a week, with up to two (2) 1,800-metre-long trains being processed per day in each 24-hour period (train shunting movements will be one 1,800 metre train at a time).

The operation of the Proposed Action will be predominately rail to rail. For the rail to road proportion, truck movements will be capped (through the use of a vehicle booking system) to four (4) truck movements per hour averaged over each 24-hour period, with a maximum of eight (8) truck movements in any one hour (unless otherwise agreed and approved).

The Proposed Action has been designed to provide rail infrastructure which will be utilised by future development of the broader Beveridge Intermodal Precinct, without pre-empting the further assessment and approval of the precinct planning and development. It comprises the following key components:

- Rail connection – rail connection (southern and northern lines) from the existing ARTC rail corridor to the terminal. Including an approximately 700m long double track viaduct to be constructed over the Herne Swamp area to maintain natural flood passage.
- Rail infrastructure – turnouts and sidings (adjacent to the terminal hardstand) to accommodate interstate trains up to 1,800 metres long.
- Intermodal terminal – container handling and storage area (hardstand) for loading and unloading of trains. Manual handling only with reach stackers.
- Site access and internal roads – Beveridge Road intersection and internal access road for heavy and light vehicle movement within the site.
- Drainage infrastructure – drainage and stormwater quality treatment works and stormwater infrastructure to manage and control the stormwater runoff appropriately.
- Ancillary development – demountable administration facility (office, toilet, lunch room) and packaged equipment (inc. but not limited to refuelling, water storage and drainage, lighting, fencing, weighbridge, solar generation and power storage, signage).
- External roads – local road improvement works between the Hume Hwy and the subject site as agreed by the relevant parties.
- Utilities – connection and site lead in for electricity, telecommunications, sewer and potable water.
- Vegetation removal – removal of native vegetation within the Proposed Action Area to the minimum extent required to facilitate the use and development.

2.4. Timing and duration of the Proposed Action

2.4.1. Construction phase

The Proposed Action is to be constructed over an 18-month period commencing mid-2025.

The Proposed Action will be constructed in one stage however may include several overlapping phases which include:

- Site preparation – clearing of vegetation including native vegetation, enabling works, site access, construction compound establishment and installation of construction environment management measures (e.g. no-go fencing, sediment controls, vehicle hygiene stations)
- Earthworks, drainage and utilities – bulk earthworks, drainage and utilities installation, fill importation, utilities work in roads
- Rail enabling – rail formation (embankments and bridge/culvert infrastructure) and ARTC rail line connection (inc. installation of signalling)
- Terminal – pavement construction, temporary construction road, installation of administration area
- Other works – miscellaneous structural construction, utilities connection, finishing works, commissioning, decommissioning/demobilisation of compound and construction activities; fencing of Merri Creek.

The indicative timing and duration of the above phases is noted below. This timing is subject to change based on several factors, including but not limited to project approvals, weather and workforce availability.

- 1. Site preparation – Q2 2025
- 2. Earthworks, drainage and utilities – Q2 2025
- 3. Rail enabling and ARTC rail line connection – Q1 2026
- 4. Terminal – Q1 2026

- 5. Other works (finishing works, demobilisation etc.) – Q4 2026 – Q1 2027

Approximately 150 construction personnel will be required during the peak construction period.

Construction will generally be undertaken within standard construction hours, including:

- 7 am to 6 pm Mondays to Fridays
- 7 am to 1 pm Saturdays

These hours may change during periods of rail occupations when access is needed at times to minimise impacts to the operating rail network.

Site access will be from the south (Beveridge Road) via a temporary access road.

2.4.2. Operational phase

The operational phase of the Proposed Action will entail 24 hours a day, 7 days a week operation of the constructed rail connection and terminal.

Approximately 15 (full-time) operational personnel will be required.

The operations will generally include:

- Trains will arrive to the terminal via the ARTC rail line and travel south towards the proposed terminal. Trains may be broken up and shunted onto the various sidings prior to reaching the terminal.
- Following arrival at the terminal, containers will be unloaded from the train wagons by reach stackers (maximum 3 operating at a one time) and forklifts (maximum 3 operating at one time). Containers will be placed in the container handling (hardstand) area for temporary storage.
- Heavy vehicles will travel to site and park within the container handling area then be loaded with containers for transport off -site (rail to road movement).
- In most instances, wagons will be broken up and transported off-site via rail to another rail facility without being unloaded (rail to rail movement).
- Containers may also be transported to the terminal by heavy vehicle and loaded onto trains transport off-site (road to rail movement).

The terminal will receive up to two 1.8 km trains per day during operation of the Proposed Action, subject to scheduling.

3 Environmental Management

3.1. Roles and Responsibilities

National Intermodal, in collaboration with a soon-to-be-appointed warehouse development partner, is responsible for the delivery and operation of the facility, following these approaches:

- Delivery will be managed through the appointment of a principal contractor under a Design and Construct (D&C) model (Principal Contractor). The Principal Contractor will oversee environmental compliance during the delivery phase, including the management of any subcontractors working under them.
- Multiple parties may operate on the Proposed Action Area, with the operational phase model yet to be confirmed. However, each Principal Operator (Principal Operator) will be accountable for environmental compliance during the operational phase for their respective scope.
- National Intermodal will be responsible under the proposed Victorian environmental and planning approvals for preparing and obtaining approval of an Environmental Management Framework that will set out the governance structure for environmental management of the Proposed Action, and a suite of Environmental Management Requirements (EMRs) addressing specific matters identified through impact assessments, that must be complied with by National Intermodal and all contractors and operators, as relevant.
- National Intermodal will be responsible for complying with its own environmental obligations and for monitoring compliance by the Principal Contractor and each Principal Operator with their respective obligations.

The following table outlines the roles and responsibilities for the implementation of this AMP for the Proposed Action.

Table 3-1: AMP Roles and Responsibilities

Objective: Define the responsibilities of parties with roles in relation to this AMP		
Party	**Responsibilities**	**Timing**
National Intermodal Corporation (Project Owner)	Obtain applicable statutory planning approvals, and work with the Principal Contractor to obtain other secondary approvals, as required. Monitor compliance with the Environmental Management Requirements (EMRs) applicable to the Principal Contractor & Operator and comply with the EMRs applicable to the Project Owner, including evaluating performance against the approved EMRs. Appoint an environmental consultant to undertake ongoing auditing activities during the construction phase.	All Project Phases
Principal Contractor (Design and Construct)	Comply with its responsibilities under this AMP and the associated legislative and approval requirements; and obtain any additional permits and secondary consents required to design and construct the Project. Preparation and implementation of a CEMP and other management plans as required by the project approvals, and / or relevant EMF and EMRs Review subcontractor performance against the EMF, relevant EMRs, CEMP and other plans prepared by the principal Contractor.	Design and Delivery Phase
Principal Operator/s	Preparation and implementation of an Operational Environmental Management Plan (OEMP) and other management plans as required by the project approvals, and / or relevant EMF and EMRs	Operations Phase
DCCEEW	DCCEEW are the regulator for the Proposed Action under the EPBC Act. National Intermodal will consult with DCCEEW in respect to development of the AMP and environmental management for the use and development and measures to avoid or minimise potential adverse environmental impacts. DCCEEW have the responsibility to uphold environmental regulations and compliance under the EPBC Act.	Prior to development commencing Construction and Delivery Phase

3.2. Reporting

The Project Owner will implement performance monitoring and reporting processes to ensure environmental and amenity effects are reduced and managed during construction and operation. The Contractor and Operator must monitor all activities that have the potential to impact on the environment. They must develop and implement an environmental monitoring program that outlines the performance evaluation measures to assess compliance and promote continual improvement. Further detail on the proposed reporting regimes is set out in Section 6.

3.3. Environmental Training, Awareness and Competency

Prior to works commencing on site, site personnel will be given a site environmental induction outlining their responsibilities under the AMP, CEMP and any relevant management sub-plans. The induction must include the following:

- Outlined environmental obligations and site worker responsibilities under the approved CEMP.
- Proposed Action Area site values and constraints that may be impacted by works. This will include No Go Zones (heritage and ecological), waterways, threatened ecological species, etc) and the specific measures to protect these values.
- Training in the identification and specific management procedures relevant to the various ecologically significant values present. Site offices must have images on noticeboards of relevant threatened species to aid and educate staff in identification.
- Training in environmental incident emergency response procedures
- Discussion of the importance of No-go zones (mapped in Figure 2-1 and defined in Section 5.3) and must clearly outline activities which are prohibited from these areas.

Monthly toolboxes with an environmental management focus must occur to provide ongoing training and communications to reinforce awareness of environmental mitigation measures during construction. Records of environmental training must be maintained for duration of the Proposed Action.

3.4. Emergency Contacts and Procedures

All measures will be taken to prevent incidents, including:

- Implementation of environmental management measures (Section 5) and appropriate audit and review
- Strict adherence to the approved work area to avoid any additional impact to nearby vegetation, habitat and ecological values
- Maintenance of vehicles, plant and equipment in line with the manufacturers specification to avoid potential pollution and fuel spills.

In the event an incident does occur, it will be identified, reported and rectified so that any impact on the environment is minimised. An environmental incident is an unplanned event which may occur as a result of works on-site or off-site and has the potential to cause adverse environmental impacts to the site and/or surrounding area. This may include incidents relating to noise, air quality, odour, uncontrolled stormwater run-off etc. or any other potential impact that may result in a community complaint.

Table 3-2 below provides the contact details in the case of incident or emergency.

Table 3-2: Emergency Contacts

Role	Phone Number	Details
Ambulance / Fire / Police	000	24 Hrs
Environment Protection Authority (EPA) Victoria	1300 372 842	24 Hrs
Victoria State Emergency Service (VIC SES)	132 500	Flood or storm events 24 Hrs

Role	Phone Number	Details
Wildlife Victoria	8400 7300	24 Hrs
Melbourne Water	131 722	Monday to Friday 8.30 am to 5 pm AEDT
Department of Energy, Environment and Climate Action (DEECA)	136 186	Monday to Friday 8 am to 6 pm AEDT
Principal Contractor (once appointed)		
National Intermodal Corporation Site Representative		

4 Potential Environmental Impacts and Risks

4.1. Matters of National Environmental Significance

4.1.1. Victorian Grassland Earless Dragon

Species Background and Habitat Values

The VGED had been presumed extinct in Victoria, with the last confirmed sighting in 1969, prior to the species being rediscovered west of Melbourne in early 2023. Since rediscovery of the species, it has been listed as Critically Endangered under the EPBC Act. The Conservation Advice (DCCEEW 2023a) and Draft National Recovery Plan (DCCEEW 2023b) outline that grasslands with the greatest likelihood of containing a remnant VGED population are likely to have:

- Native vegetation cover with open patches of bare earth and/or naturally short open swards due to low-level disturbance (e.g. managed fire, grazing);
- Presence of suitable refugia, particularly invertebrate burrows, surface rock cover and/or soil cracks;
- A functioning invertebrate community to provide appropriate prey, as well as invertebrates that engineer burrows for refuge, particularly araneae (spiders), coleoptera (beetles) and orthoptera (grasshoppers and crickets) order fauna;
- Minimal weed cover;
- Not been de-rocked, ploughed or fertilized to improve pasture quality.

Occurrence within the Study Area

Based on the results of the VGED Habitat Assessment (Biosis, 2025), the Study Area and the surrounding environment are unlikely to support the VGED. The Study Area occurs at the edge of the VGED habitat distribution, with no confirmed records of the species within the broader area. Furthermore, the following key findings in reference to potential habitat within the Study Area were noted:

- The lower elevation areas associated with Herne Swamp and the high biomass areas within the existing rail corridor are considered to have no capacity to support the species.
- Higher elevation grassy areas are considered to have a low likelihood of supporting the species due to dominance of weedy pasture grasses, soil disturbance from cattle grazing and lack of soil cracks and invertebrate burrows.
- Small, isolated stony rises outside of the Proposed Action Area have a low likelihood of supporting the species due to site context and the absence of key habitat features such as soil cracks and/or invertebrate burrows.

Potential Impacts

The likelihood of the species occurring within the Proposed Action Area or surrounds is considered negligible to low, and as such, the risk of the Proposed Action in impacting the species is highly unlikely. Refer to Section 4.2 for the detailed risk assessment.

Existing Conservation Advice and Recovery Plans

Since the rediscovery of the species in 2023, the Commonwealth and Victorian Governments have been working with species experts to confirm the best approach to the ongoing conservation of the species. At this stage, any guidance on the species is still in its infancy. However, the below resources have been consulted in preparing this document:

- DCCEEW 2023a. Conservation Advice for *Tympanocryptis pinguicolla* (Victorian grassland earless dragon). Department of Climate Change, Energy, Environment and Water, Canberra, ACT.

- DCCEEW 2023b. Draft National Recovery Plan for Four Grassland Earless Dragons (*Tympanocryptis* spp.) of Southeast Australia. Australian Government Department of Climate Change, Energy, the Environment and Water, Canberra.
- DCCEEW 2024. Species Profile and Threats Database *Tympanocryptis pinguicolla* — Victorian Grassland Earless Dragon.

The recent rediscovery of VGED promotes a conservative approach. As such, despite the low risk associated with the Proposed Action, the above documents have informed environmental management measures to address residual risk to this species as outlined in Section 5.

4.1.2. Environment of Herne Swamp

Description and occurrence within the Study Area

Herne Swamp is a seasonal herbaceous wetland, located in the northwest corner of the Study Area (Figure 2-1). Although the wetland has experienced reduction through historical drainage modifications (Alluvium, 2021) (Biosis, 2025), it still sustains a significant area of the Critically Endangered EPBC Act listed SHWTLP TEC. This community is characterised by isolated, freshwater wetlands that are usually inundated on a seasonal basis through rainfall, then dry out, so surface water is not permanently present.

SHWTLP TEC

A total of 21.91 ha of SHWTLP TEC has been identified and mapped in Herne Swamp, with an additional 6.27 ha of the community potentially occurring west of Merri Creek. The extent of this community is shown in Figure 2-1.

Flora and Fauna potentially supported by Herne Swamp

Besides supporting the SHWTLP TEC, Herne Swamp is considered to provide suitable habitat for several common and threatened flora and fauna species, including the following:

- EPBC Act listed flora
    - Swamp Fireweed (*Senecio psilocarpus*) – Vulnerable under the EPBC Act
    - Swamp Everlasting (*Xerochrysum palustre*) – Vulnerable under the EPBC Act
    - River Swamp Wallaby-grass (*Amphibromus fluitans*) – Vulnerable under the EPBC Act

Targeted surveys at the Proposed Action Area for these flora species in December 2023 did not record any individuals (Biosis, 2025)

- EPBC Act listed fauna
    - Common Sandpiper (*Actitis hypoleucos*) –Migratory under the EPBC Act
    - Latham's Snipe (*Gallinago hardwickii*) – Vulnerable and Migratory under the EPBC Act
    - Growling Grass Frog (*Litoria raniformis*) – Vulnerable under the EPBC Act

The migratory-listed Common Sandpiper relies on a variety of inland- (e.g. Herne Swamp) and coastal wetlands during its foraging, non-breeding period. The species was last documented within 5km of Herne Swamp in 2018. Nevertheless, Herne Swamp's suitable habitat is not considered international or national 'important habitat' for the species (Refer to Appendix 3 in (Biosis, 2025)).

Similarly, the also migratory-listed Latham's Snipe is known to use low dense vegetation such as swamps, flooded grasslands, in and around bogs and other water bodies. The species was also last documented in 2018, with some individuals sighted in proximity to the flora and fauna assessment investigation area (Biosis, 2025)). Herne Swamp's suitable habitat is also unlikely to constitute 'important habitat' for the species (Refer to Appendix 3 in (Biosis, 2025)).

For the Vulnerable-listed Growling Grass Frog, Herne Swamp provides potential habitat in the form of still or slow-flowing waterbodies and surrounding terrestrial vegetation. Nevertheless, targeted surveys conducted in 2019 for the Proposed Action as well as previous surveys documented in Biosis 2025 have failed to document the species since 2009.

Potential Impacts

Herne Swamp occurs in a landscape where introduced vegetation cover is significant and intensive land clearing has taken place over the past 150 years. Land use impacts from drainage works, clearing, cropping and grazing have reduced the community integrity and functionality (e.g. loss of hydrological functioning, reduced flora species richness, reduced genetic exchange across the community due to fragmentation).

Against this set of existing conditions, Table 4-1 summarizes identified activities/pathways as part of the Proposed Action with the potential to exacerbate, or in some instances improve the quality of the Herne Swamp environment.

Through updates in design (Refer to Section 4.2), the Proposed Action was able to avoid most of the direct impacts to the SHWTLP TEC, such that the residual impacts from the Proposed Action are limited to 0.03 ha of this TEC, equivalent to less than 0.15% of the confirmed community in Herne Swamp.

During construction, potential impacts to Herne Swamp include damages to SHWTLP vegetation, erosion/sedimentation, temporary flow changes and weed invasion. Such impacts can be largely managed through the EMRs and CEMP as detailed in Section 5.

To identify impacts during the operational phase of the Project, hydrologic and hydraulic simulation modelling and analysis were undertaken to understand seasonal wetting and drying patterns, water level flux and water quality impacts to Herne Swamp and SHWTLP at Merri Creek. Simulation modelling incorporated three separate climate periods selected to represent dry, average, and wet rainfall years. The key findings from the analysis are that provided mitigation measures outlined in hydrology report (Aurecon, 2025) are incorporated in detailed design documentation, and are implemented, no adverse impacts are anticipated to Herne Swamp environment.

The potential impacts to the Herne Swamp environment, and the SHWTLP TEC were assessed against the relevant criteria as per the EPBC Act *Significant impact guidelines 1.1: Matters of National Environmental Significance* (Department of Environment, 2013) as well as EPBC Act *Significant impact guidelines 1.2: Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* (DSEWPaC, 2013). Such assessments concluded that through the implementation of avoidance / mitigation measures summarized in Section 5, impacts to the SHWTLP TEC associated with Herne Swamp are unlikely to be significant (Refer to Appendix 3 in (Biosis, 2025)).

The potential impacts to the EPBC listed species for which Herne Swamp provides potential habitat as listed above were also assessed against the relevant criteria as per the EPBC Act *Significant impact guidelines 1.1: Matters of National Environmental Significance* (Department of Environment, 2013). Such assessment concluded that through the implementation of avoidance/mitigation measures summarized in Section 5, impacts to the flora and fauna species associated with Herne Swamp are unlikely to be significant (Refer to Appendix 3 in (Biosis, 2025)).

Existing Conservation Advice and Recovery Plans

SHWTLP TEC

There is no adopted or made Recovery Plan for this community, however key threatening processes thought to contribute to the decline of this community are identified as follows (DSEWPC, 2012):

- Clearing of native wetland vegetation – a reduction or impact to remnant native vegetation and community composition
- Alteration of hydrology (e.g. drainage or flooding) – fragmenting natural tributaries or modification to land surface redirecting water flow
- Alteration to water quality (e.g. increased salinity, higher nutrient load, pollution)
- Increased fragmentation and landscape disconnection
- Weed invasion – introduction of introduced grasses and invasive flora
- Inappropriate grazing regime and impact from livestock – trampling, grazing during drought, high stocking rates

The published conservation advice has been referred to in the formation of environmental management measures associated with this TEC. See Section 5 for environmental management measures to mitigate impacts to this community.

EPBC Act listed species for which Herne Swamp provides potential habitat

Published Conservation Advice and Recovery Plans for EPBC Act listed species supported by Herne Swamp identified habitat loss as a key threatening process. Therefore, mitigation measures (Section 5) are aimed at protecting the SHWTLP TEC (e.g. No-go zones, pollution prevention, minimizing hydrological impacts) and general flora (e.g. weed hygiene) and fauna (e.g. sensitive light design) will also confer protection to the EPBC Act listed species supported by Herne Swamp during construction and operation of the Project.

4.2. Risk assessment

The following table details the Risk Assessment undertaken for the VGED and the SHWTLP TEC following the implementation of species-specific mitigation measures. The risk level has been informed using the Risk Matrix provided in Appendix A, and the environmental management plan guidelines (DCCEEW, 2024).

Table 4-1: Risk Assessment

Potential impacts	MNES and other environmental matters	Risk level without mitigation	Mitigation measures	Applicable EMRs in Section 5 include	Risk level with mitigation measures implemented	Residual impact
Direct removal and/or destruction wetland of habitat	SHWTLP TEC	High	• Design changes to avoid direct impacts to 1.95 ha of SHWTLP TEC • Appropriate design of rail connection to avoid hydrological impacts to SHWTLP • Adherence to Proposed Action Area • Establishment and avoidance of no-go zones • Grazing management • Management of retained SHWTLP under a Conservation Management Plan (CMP), to include: - Ecological Assessment and Monitoring - Habitat Restoration and Enhancement - Water Management - Invasive Species Management - Adaptive management - External audit.	EM2, EM3, FF2, FF3, FF4, FF9	Medium	Removal of up to 0.030 ha of SHWTLP TEC equivalent to 0.15% of SHWTLP TEC mapped in Heme Swamp.
Direct removal and/or destruction of VGED habitat	VGED	Medium	• VGED pre-clearance survey (see Appendix B for detailed methodology) • Adherence to the Project Impact Footprint	FF7, FF3	Low	Species is considered unlikely to occur within the Study Area. No direct impacts are proposed.
Potential death or injury to fauna during earthworks and habitat clearance	VGED	Medium	• VGED pre-clearance survey (see Appendix B for detailed methodology) • Adherence to the Project Impact Footprint	FF7, FF4	Low	Species is considered unlikely to occur within the Study Area. No direct impacts are proposed.

Potential impacts	MNES and other environmental matters	Risk level without mitigation	Mitigation measures	Applicable EMRs in Section 5 include	Risk level with mitigation measures implemented	Residual impact
Facilitating the spread of noxious weeds, pest animals, cattle and pathogens	VGED, SHWTLP TEC	Medium	• Adherence to the Project Impact Footprint • Appropriate construction hygiene measures to be implemented to manage spoil, weeds and pathogens • Grazing management • Management of retained SHWTLP under CMP to monitor and manage spread of noxious weeds, pests and pathogens	CLM2, FF2, FF4, FF7	Low	The Proposed Action is not considered to increase or exacerbate the risk or spread of pest animals or noxious weeds. The Project will reduce the likelihood of introduced species and pathogen transmission through management controls. No direct impacts proposed for the Project.
Works near waterways (risk of sedimentation and reduction in water quality).	SHWTLP TEC	High	• Construction activities to be managed through best practice construction management to avoid sedimentation and pollution • Stormwater management to follow design optimisation to achieve water quality criteria as set out in the Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO, 1999) • No direct impacts to Merri Creek and the retention of most of the SHWTLP community	CLM2, CLM3, FF1, FF7, SW1, SW3, SW5, SW6	Low	No direct impacts to Merri Creek and minimal to negligible indirect impacts to the community through hydrology changes.
Fragmentation of habitat and changes in hydrology	SHWTLP TEC	High	• Stormwater design to minimise impacts to water level as set out in the Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO, 1999) • Construction of drainage crossing/ bridge/culverts to maintain water flows and habitat connectivity within the Study Area	FF1, FF7, FF9,SW2, SW6	Low	Minimal to negligible indirect impacts to the community through hydrology changes, and no significant impacts to the TEC..

5 Environmental Management Measures

The EMF provides a transparent workflow to manage all environmental aspects of the Project. The purpose of the EMF is to ensure that works are planned and performed so that the adverse effects on the environment are either avoided or minimised and are undertaken in accordance with approved EMRs.

The EMF includes EMRs which provide guidance on the environmental risk areas to be considered, and the minimum management standards to be achieved during design and construction. The EMRs are informed by site specific investigations and feedback from key stakeholders, including DCCEEW The EMRs are not intended to prescribe how environmental outcomes are to be achieved, but rather set out environmental outcomes to be achieved and an approach for delivering the works that is flexible and encourages innovation and use of best practice methodologies by the Contractor and Operator. Compliance with the EMRs is a statutory requirement of the Project's planning approval as well as a contractual requirement and key performance indicator for the Contractor and Operator. This compliance will be regularly monitored through inspections, reports, and independent audits, as set out in Section 6. EMRs proposed to form part of the EMF for this Proposed Action that are relevant to the AMP are included in the following tables (Table 5-1 to Table 5-4).

Only EMRs are included which are relevant to the controlling provisions for this Proposed Action which is why the numbering is not sequential.

5.1. General Environmental Management Measures

Table 5-1: General Environmental Management EMRs

Objective: Eliminate or reduce the risk of harm to human health and the environment through good environmental practice		
	Timing	Responsibility
EM2 – Construction Environmental Management Plan		
The Contractor must prepare a CEMP prior to all works commencing in consultation with Melbourne Water. The CEMP must adopt best-practice measures to prevent risk of harm to human health or the environment and minimise environmental risks as far as reasonably practicable. The Contractor must be prepared in general accordance with the relevant EPA Publications, including EPA Publication 1695.1: Assessing and Controlling Risk and EPA Publication 1834.1 Civil Construction, Building and Demolition Guide. It must include: • Documented roles and responsibilities • Relevant legislative requirements, including all approval and permit requirements. • Environmental risk assessment • Include a process for development of Site Environment Implementation Plans (EMR - EM3) • Environmental monitoring plan, including auditing and surveillance activities • Environmental reporting and management process • Unexpected Finds Protocol (UFP) should be developed for any unexpected site conditions, including discovery of Heritage values or encountering contaminated land / asbestos. The UFP should be put in place prior to and during site development works. • Include measures such as no drainage, effluent waste soil or other materials shall enter or be directed to railway land from the Project site or to be stored or deposited on railway land by the proponent, unless otherwise agreed in writing by the Head, Transport for Victoria and VicTrack The CEMP must be implemented by the Contractor for the duration of works; it must be reviewed and updated on a regular basis, at a minimum of at least once every 12-months.	Prior to construction commencing and implemented for duration of works.	Contractor
EM3 – Site Environment Implementation Plans (SEIP)		
The Contractor must prepare SEIPs (a part of the CEMP, or standalone document) that are scaled drawings that cover the extent of works that will be undertaken to which the SEIP related; these should clearly state: • Location and scope of works to be managed; • Location and nature of key site features such as significant structures, access tracks, laydown areas, sensitive receptors, and ecological and heritage features, waterways and extent of any contaminated soil; • Pre-construction works for mitigating environmental risks, such as sediment controls, site fencing and protection of sensitive areas (e.g. no go zones); • Location and nature of key environmental controls to protect sensitive receptors with high-level explanatory text describing the controls;	Prior to workers commencing any works on site.	Contractor

Objective: Eliminate or reduce the risk of harm to human health and the environment through good environmental practice		
• Nature and frequency of monitoring to be undertaken, including any locations of monitoring point (as relevant); and, • Key site contacts, and process for notification of a potential environmental hazard or incident. SEIPs must be regularly reviewed and updated by the Contractor as site conditions change so they reflect the current site condition and controls to be implemented. SEIPs must be reviewed by the IEA prior to works commencing.		
EM5 – Operational Environmental Management Plan (OEMP)		

The Operator must prepare a OEMP prior to operations commencing in consultation with Melbourne Water. The OEMP must adopt best-practice measure to prevent risk of harm to human health or the environment and minimise environmental risks as far as reasonably practicable. The Contractor should refer to the relevant EPA Publications, including EPA Publication 1695.1: assessing and controlling risk. It must include:
• Documented roles and responsibilities
• Relevant legislative requirements, including all approval and permit requirements.
• Environmental risk assessment, and management measures to address the following environmental aspects
  ○ Noise management
  ○ Stormwater management
  ○ Traffic management
  ○ Waste management
  ○ Weed and pest management
  ○ Vegetation management; including maintaining grass heights in bushfire setback areas.
  ○ Fauna and biodiversity management, including kangaroo management
  ○ Artificial light Management
• Environmental monitoring, reporting and management processes to promote continual improvement
• Develop and implement a vehicle booking system that limits truck movements for the rail to road proportion. The effectiveness of the vehicle booking system shall be reviewed by the EIA during operational audits.
• Emergency Management Plans, including environmental incidents
	Approved prior to operational phase commencing and implemented for a 12-month duration of operation.	Operator

5.2. Contaminated Land, Soils and Water

Table 5-2: Contaminated Land, Soils and Water EMRs

Objective: Prevention of pollution and contaminated land and groundwater to mitigate any impacts to human health and the environment		
	Timing	Responsibility
CLM2 – Management of soils, contaminated land and water		
The CEMP prepared by the Contractor (or standalone sub-plan) must include measures that outline the approach to soils, contaminated land and water management based on the findings from the baseline soil and water assessment. It must address the following aspects: • Compliance with any applicable waste duties and legislative requirements • Identify where any contaminated or hazardous material is exposed during construction; and management of hazardous substances, including health, safety and environment procedures that address risks associated with exposure to hazardous substances for visitors and general public; contain measures to control exposure in accordance with relevant regulations, standards and best practice guidance and to the requirements of WorkSafe and EPA Victoria; and include method statements detailing monitoring and reporting requirements o Identify the areas of contamination risk and risk management procedures. o Include a contamination unexpected finds protocol in case localised contamination is encountered. o Safety procedures to protect human health, environmental health, contamination control. o Identify and implement environmental monitoring of potential exposure risks. • Spoil classification and management approach for contaminated soils, including demonstrating lawful places requirements for material sent offsite or an appropriate risk assessment for any material reused onsite. • Address potential effects to the environment due to changes in land stability, disturbance or acid sulfate soils or project induced soil erosion over the long or short-term. • Contingency measures for management of contaminated groundwater and surface water. • Unexpected finds protocol • Records management, monitoring and reporting The level of detail and controls will be commensurate to the risks identified in CLM1; a standalone soil management sub-plan may be required to address the requirements of CLM2 dependent on whether contamination and / or complex soil conditions are present within the site to ensure controls are appropriate during all stages of delivery.	Approved prior to construction commencing and implemented for duration of works.	Contractor
CLM3 - Storage and Handling of Fuels, Chemicals and Hazardous Substance Management		
The CEMP prepared by the Contractor (or standalone sub-plan) must include measures that outline the Contractor's approach to Storage and Handling of Fuels, Chemicals and Hazardous Substance Management, including controls to prevent discharges to land, water or groundwater. It must address the following aspects: • Avoid placement of hazardous substances (including fuel) adjacent to retained biodiversity values, waterways, and No-go Zones. • Any dangerous/hazardous substances must be adequately stored/bunded in accordance with AS1940-2004. • Plant and equipment, in particular hydraulic hoses, to be well-maintained and checked regularly for damage.	Approved prior to construction commencing and implemented for duration of works	Contractor

Objective: Prevention of pollution and contaminated land and groundwater to mitigate any impacts to human health and the environment		
• Processes for refuelling • Appropriate provision for spill response material, such as spill kits. • In the event of a spill / discharge, or potentially contaminated land or water event, the Contractor must undertake all appropriate clean-up and remediation activities to restore the environmental values to an acceptable level. National Intermodal may require the Contractor to undertake sampling in certain areas where there may be evidence of contamination based on a visual assessment to confirm no contamination has occurred as a result of the Contractors activities.		
CLM4 – Sodic Soil Management		

Dispersion testing indicates that the residual basaltic clay and alluvium is generally moderately dispersive (Class 2) or exhibits dispersion on remoulding (Class 3). The test results indicate that the soil that has formed on the basalt 'stony rises' terrain is sodic to strongly sodic, whilst the alluvial clay within the 'swamp' area is sodic. To address this the Contractor must:
• Incorporate design measures into the design of earthworks during the detailed design to manage potential impacts of sodic and dispersive soils, this may include:
  ○ Soil compaction to reduce soil permeability, restricting the movement of water and dispersed clay through the soil matrix, which decreases the severity of dispersion and restricts tunnel development.
  ○ Consider incorporation of geotextiles overlain by rock beaching and Reno (rock) mattresses/gabions as appropriate for erosion protection for embankment sections, along channels, around culverts.
• Include an Erosion and Sediment Control Plan (as per SW3) that considered all key stages of construction from topsoil stripping, bulk earthworks to rehabilitation and includes measures for management of sodic soils, including:
  ○ Appropriately managing and limiting the amount of topsoil stripping undertaken at one time, limiting the time the underlying soil is left exposed to the elements during construction.
  ○ Soil cover / erosion protection and burial of embankments and exposed sodic/dispersive soil. Topsoil minimises the interaction between water and dispersive clays by providing both a physical and chemical barrier.
  ○ Soil chemical ameliorants (i.e. gypsum or lime) may be used for stabilisation of sodic and dispersive soils in proposed earthworks.
	Pre-construction	Contractor

5.3. Ecology

Table 5-3: Ecology EMRs

Objective: To avoid and mitigate impacts to ecological values and seek to improve ecological values that will be retained	Timing	Responsibility
FF1 – Ecologically Sensitive Design		
The Contractor must comply with the design and setback requirements determined for the Project; which include: • Works within the existing Project footprint and design must avoid impacting on any designated No Go Zones; where feasible design should seek to further avoid and minimise removal of native vegetation and / or ecologically sensitive areas. Protect key values (including waterways) by retaining features and including appropriate buffers into design • Avoiding effects of lighting design on wildlife in line with the National Light Pollution Guidelines for Wildlife (DCCEEW 2023a). • Culverts within the Herne Swamp Buffer area are to be designed with consideration to the GGF Crossing Design Standards from Department of Environment, Land, Water and Planning (DELWP, now DEECA) (DELWP 2017a). • Stormwater design must minimise change to the local hydrology (including water flow and quality); including Herne Swamp, Merri Creek and existing culverts. • Appropriate bridging design of rail connection to avoid hydrological impacts to SHWTLP.	Prior to construction commencing.	Contractor
FF2 - Grazing management		
Removal of domestic grazing from sensitive wetland and waterway environments. Cattle will be progressively restricted from the project footprint, Herne Swamp buffer zone and Merri Creek to allow for natural restoration of these areas.	Prior to construction commencing.	National Intermodal
FF3 - No-go Zones		
No Go Zones are provided in Figure 2.1. These No Go Zones must be clearly identified in the Contractor CEMP and Site Environment Plans / Design Drawings. The following measures must be adopted in relation to No Go Zones: • All areas outside of the Proposed Action Area that have potential to support ecological values or to impact on waterways are to be classified as No-Go zones. • The No-go zones immediately adjacent to the Stage 1A site or that may be impacted by works must be fenced with high-visibility safety bunting or temporary construction fencing (including sediment fencing in the vicinity of waterways). The area is to be signed as a 'No-go zone'. Fencing should enable fauna to safely avoid areas of construction. • The erection of the fencing surrounding No-go zones must be supervised or reviewed by a qualified and experienced ecologist, so values supported within that No-go zone are not impacted. The fencing is to be appropriately maintained for the duration of the works. • The No-go zones identified are to be avoided by construction works, with no admittance to the areas by construction personnel, vehicles or machinery. • Any foot access of personnel into No-go zones must be accompanied by a qualified ecologist. No-go zones are to be included on all site maps including the CEMP. • Should additional opportunities to protect vegetation during detailed design become apparent within the project footprint; these additional areas should also become No-go zones. Any reduction to No Go Zone areas must be approved by National Intermodal and undertaken in consultation with a suitably qualified ecologist.	Approved prior to construction commencing and implemented for duration of works.	Contractor

Objective: To avoid and mitigate impacts to ecological values and seek to improve ecological values that will be retained		
FF4 - Flora and Fauna Management Plan (FFMP)		

The Contractor must prepare a Flora and Fauna Management Plan (as a standalone plan, or as part of the CEMP) that identifies all ecological values and outlines the applicable mitigation measures outlined below (as a minimum):
• Compliance with all legislative requirements, including EPBC Act approval decisions and Native Vegetation offset requirements.
• Identification of any secondary consents required, such as Flora and Fauna Guarantee Act Permit to Take.
• Identification of all ecological values that may be potentially impacted by the Project, No Go Zones and appropriate protection measures as per EMR FF3, and any additional No Go Zones that have been identified.
• Growling Grass Frog mitigation measures, including:
  ○ Fencing suitable for the exclusion of Growling Grass Frog (to be designed in conjunction with an ecologist) will be erected to exclude construction areas and access tracks from within the vicinity of suitable habitat, including waterway and wetland areas.
  ○ Fencing suitable for the exclusion of Growling Grass Frog (to be designed in conjunction with an ecologist) will be erected to exclude construction areas and access tracks from within the vicinity of suitable habitat, including waterway and wetland areas. During construction, daily checks of frog fencing will be undertaken by a suitably qualified environmental representative.
• Fauna management measures, including:
  ○ Wildlife (including Eastern Grey Kangaroos) avoidance and management measures
  ○ Deep pits and open trenches will be covered overnight to allow species that enter the Stage 1A Site to be dispatched without harm and injury. Where trenches are unable to be 'closed' for the night, open trenches will be checked each morning for fauna presence, and egress structures left in place for fauna to exit. If animals are within the trench, an ecologist/wildlife handler will be called to remove the animal.
• Habitat Removal and Fauna Salvage
  ○ Where woody habitat is identified for removal (including single trees) an ecologist/ wildlife handler will be engaged to check for fauna occupancy. Where fauna are identified, fauna will be safely relocated to outside the construction footprint prior to the removal of habitat.
  ○ Where non-woody habitat is identified for removal, an ecologist/wildlife handler will supervise habitat clearance. Any fauna disturbed in the process will be safely relocated to adjacent habitat outside the construction footprint.
  ○ Only a qualified wildlife handler/ecologist with the appropriate ethics approval and DELWP scientific permit will undertake the surveys and salvage protocol. A Section 28A *Wildlife Act 1975* authorisation is required to handle native fauna; and specify salvage and re-location controls that need to be complied with.
• Weed and pest controls measures, including:
  ○ In areas adjacent to retained ecological values, ongoing targeted weed monitoring and treatment is to be integrated with revegetation plans so as to promote establishment of indigenous flora over weeds.
  ○ The spread of noxious weeds and pest animals must be controlled in accordance with the *Catchment and Land Protection Act 1994*.
  ○ Chytrid Fungus standard hygiene controls for frog handling, footwear and vehicles will be included in the CEMP and must be implemented for all works in and around waterways / wetlands
  ○ Pest and Weed Management controls must be included in the CEMP including hygiene/wash-down facilities and protocols,
  ○ Defined access tracks and entry/exit points post works weed monitoring and management.
	Approved prior to construction commencing and implemented for duration of works.	Contractor

FF6 - Conservation Management Plan		

Objective: To avoid and mitigate impacts to ecological values and seek to improve ecological values that will be retained		
Management of Herne Swamp during operations is intended to be conducted under a Conservation Management Plan which may result in additional habitat for the ecological community and threatened species associated with the swamp. The plan will include the following: • Ecological Assessment and Monitoring • Habitat Restoration and Enhancement • Water Management • Community Engagement and Education • Invasive Species Management • Climate Change Adaptation • Funding and Resource Management. The plan must be developed to the satisfaction of DCCEEW, and (as relevant) in consultation with Local Councils and Melbourne Water	National Intermodal to prepare prior to operations and implement	National Intermodal
FF7 - Victorian Grassland Earless Dragon Management		
Implement measures in this Action Management Plan for the Victorian Grassland Earless Dragon (VGED), including the following: **Pre-construction:** In areas of low quality VGED habitat, a suitably experienced ecologist will undertake a pre-clearance survey prior to works commencing. The pre-clearance survey will be undertaken in accordance with the protocol described in Appendix B. All relevant State and Commonwealth Departments and representatives (namely the Grassland Earless Dragon Recovery Team) will be notified and informed of any finds on the Project and described in the Draft GED Recovery Plan (DCCEEW 2023). All work staff and site personnel will be required to attend an induction which will detail requirements for the appropriate management of VGED and their potential habitat within the works area. The induction will be attended by the Project Ecologist to ensure all personnel are familiar with the identification of VGED and what they are required to do in the event of locating any VGED during construction. Information that includes pictures of VGED will be included in the CEMP and made available to all site personnel. **During Construction**: In the low likelihood a VGED is encountered during works, an immediate stop works order will be implemented and the Discovery Protocol (as described in Appendix B) will be initiated. Further investigation will be undertaken to determine species presence within the work area. All relevant State and Commonwealth Departments and representatives (namely the Grassland Earless Dragon Recovery Team) will be notified and informed of any finds on the Project as per the protocol outlined in the Draft GED Recovery Plan (DCCEEW 2023). **Operational**: No additional clearing beyond the approved Project impact footprint and management of indirect impacts on potentially suitable habitat for VEGD.	Contractor for construction phase. National Intermodal for Operational phase	Contractor for construction phase. National Intermodal for Operational phase.
FF9 -Protection of Herne Swamp		
Prior to the commencement of works, the Contractor must develop mitigation measures to protect the values of Herne Swamp. All areas of Herne swamp and the buffer area (i.e. 200m) outside of the Project area are nominated No Go Zones. Mitigation measures to be include in the CEMP and any relevant sub-plans must include the following: • Site induction for all workers to include reference to Herne Swamp buffer area No Go Zone. • No Go Zone fencing to be established around Herne Swamp buffer area (outside of the project area) the Project area and be maintained for the duration of works.	Prior to construction commencing and implemented for duration of works.	National Intermodal

Objective: To avoid and mitigate impacts to ecological values and seek to improve ecological values that will be retained

• Restrict livestock access into the Herne Swamp buffer area prior to construction.
• Temporary works must minimise change to the local hydrology (including water flow and quality) of Herne swamp and the wetting and drying regime of Herne Swamp must be maintained.
• Measures must be implemented to avoid indirect impacts during construction, including:
  ○ Sediment runoff during construction areas is directed away from Herne Swamp.
  ○ No refuelling to occur or hazardous material storage within Herne swamp buffer area (i.e. within 200m)
  ○ No long-term stockpiles (>28 days) within Herne swamp buffer area (i.e. within 200m)
  ○ No dewatering from construction areas into Herne Swamp
  ○ Consideration of timing of works in the Herne swap buffer area in wet seasons or prior forecasted heavy rain events and appropriate measures to mitigate offsite impacts from flooding.

5.4. Water Management

Table 5-4: Surface and Groundwater Water EMRs

Objective: To maintain environmental values of surface water and groundwater		
	Timing	Responsibility
SW1 - Water Quality		
The design of the project must result in negligible change to the local hydrology to meet best practice water quality treatment requirements to protect biodiversity values; including maintaining the wetting and drying regime of Herne Swamp. Detailed hydrologic, hydraulic and water quality modelling of the surface water conditions of the site must be undertaken prior to and during the design development to ensure the following can be achieved: Compliance with Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO, 1999); including meeting the following stormwater pollutant reductions: • 80% Total Suspended Solids based on mean annual load • 45% Total Phosphorus based on mean annual load • 45% Total Nitrogen based on mean annual load • 70% Gross Pollutants or Litter based on mean annual load Flow (water volume) requirements must be adopted as per EPA Publication 1739: Urban Stormwater Management or as otherwise agreed in consultation with Melbourne Water (and Local Councils as required) prior to construction commencing.	Prior to construction	Contractor
SW2 - Flood Plain Management / Design		
Development must not occur unless water quality, storm water flows, and flood protection measures are in place to maintain flood conditions (depth, velocity and storage), with no afflux produced off site. Detailed hydrologic, hydraulic and water quality modelling of the surface water conditions of the site must be undertaken during the design development to ensure the following can be achieved: • Provide drainage capacity equivalent to 10% AEP for minor drainage system in industrial areas for Council drainage systems and 18% AEP (5-year ARI) for Melbourne Water managed drainage systems - To offset the loss of flood storage, compensatory storage is to be provided. • New developments to be protected from major flooding equivalent to the 1% AEP event. All new lots are to be above the minimum freeboard requirements above the 1% AEP flood level. • The existing culverts under the existing rail line are to be extended to the full width of the new rail line embankment within the study area to prevent blockage of flood flow. • Include measures such that the existing flood measures within the existing rail reserve are maintained, and that any impacts arising from the Project on the rail reserve do not exceed the current flood impacts on the rail corridor. These requirements must be adopted, or as otherwise agreed in consultation with Melbourne Water (and Local Council(s) as required) prior to construction commencing on the land included in the Urban Floodway Zone	Approved prior to construction commencing on the land included in the Urban Floodway Zone, and implemented for duration of works	Contractor

Objective: To maintain environmental values of surface water and groundwater		
SW3 - Erosion and Sediment Control Planning and Implementation		
The CEMP prepared by the Contractor (or standalone sub-plan) must include measures that outline the approach to erosion and sediment control planning and management; it must address the following aspects: • Erosion and sediment controls designed and implemented in accordance with EPA Victoria construction guidelines (Publications 275, 1834 and 1896) will be implemented for works in the vicinity of waterways and wetlands such that water quality of waterways and wetlands that intersect the Project are maintained at preconstruction levels. • For the purposes of stabilisation, following the completion of works, revegetation of areas of ground disturbance, that do not support permanent infrastructure, will be undertaken to minimise the impacts of the Project to ecological values and avoid erosion and sedimentation • A Working on Waterways Permit from Melbourne Water is likely required for works within or adjacent to Merri Creek and / or existing Melbourne Water drainage assets. The Contractor will be responsible for obtaining this Permit prior to construction commencing. • Staging plans for site development and Site Environment Plans that detail where erosion and sediment control will be established as the development progresses. • Sediment runoff during construction and operations is directed away from Herne Swamp and Merri Creek. • Existing stormwater runoff volumes are retained during construction and operation • A vegetated drainage swale is integrated in the Stage 1A Site which will run north south along the terminal hardstand area to naturally filter surface water prior to discharge and improve stormwater quality. • Water quality criteria will be developed in consultation with Melbourne Water to avoid onsite (Herne Swamp) and offsite (Merri Creek) water quality impacts. • An ongoing monitoring program for water levels and quality will be developed to assess the ongoing effectiveness of management controls. • Construction stockpiles, machinery, roads, and other infrastructure are to be placed within the approved Proposed Action Area only and away from waterways. • Sediment control measures will be installed around stockpile areas and stockpiles will be securely covered when not in use. • Revegetation of areas of ground disturbance (as soon as practicable), will be undertaken to minimise the impacts to ecological values and avoid erosion and sedimentation	Approved prior to construction commencing and implemented for duration of works	Contractor
SW4 – Groundwater Management		
The CEMP prepared by the Contractor (or standalone sub-plan) must include measures that outline the approach to groundwater management; it must address the following aspects: • Impacts to groundwater – where groundwater is expected to be encountered, approaches to minimising changes to groundwater levels must be provided and supported by analysis if applicable. • Groundwater monitoring – any groundwater monitoring to monitor that environmental values are being maintained on the basis of works being undertaken	Approved prior to construction commencing and implemented for duration of works	Contractor

Objective: To maintain environmental values of surface water and groundwater		
• Dewatering - where temporary dewatering of groundwater is required; a methodology must be developed that addresses risks to human health and the environment. This must be inclusive of groundwater management and any reuse / disposal processes. • Unexpected groundwater conditions - a plan or process must be developed that includes contingency measures where groundwater is unexpectedly encountered. Contingency measures must also be developed in the event of an impact occurring at an existing active groundwater bore or surface water body. • Contingency measures in the event that groundwater contamination is present. Consultation with Melbourne Water may be required for offsite disposal of groundwater into Merri Creek or any Melbourne Water drainage asset.		
SW5 – Swale Design		
Swale design optimisation to achieve the Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO, 1999) water quality target for nitrogen removal, including: • Appropriate revegetation and low-nutrient landscaping are required on the outer batters of all works and within the swales. • The base of the vegetated stormwater channel to be planted out with native local grasses which improve infiltration and nitrogen treatment. Due to the bushfire risk, swale design should adopt a maximum grass length of 100 mm high and the swale geometry should be made wider to achieve the same treatment performance.	Approved prior to construction commencing and implemented for duration of works, managed during operations	Contractor for construction phase. National Intermodal for Operational phase.
SW6 – Railway Infrastructure within the Urban Floodway Zone		
Prior to commencement of works for railway infrastructure within the Urban Floodway Zone, detailed design plans for the railway infrastructure and associated embankment, culvert or bridge structures and any earthworks that permanently obstruct natural flow paths or drainage lines on land located within the UFZ, must be provided to and approved by the relevant floodplain management authority.	Prior to commencement of works for railway infrastructure	Contractor for construction phase.

6 Audit and Review

6.1. Environmental Auditing

This section describes the performance monitoring and reporting processes that will be implemented on the Project, including auditing to ensure environmental and amenity effects are reduced and managed during construction and operation of the Project.

The Contractor and Operator must monitor all activities that have the potential to impact on the environment. They must develop and implement an environmental monitoring program that outlines the performance evaluation measures to assess compliance and promote continual improvement. A variety of monitoring requirements may be required to demonstrate compliance with the EMRs and the relevant environmental obligations.

National Intermodal will appoint an independent auditor required under the EPBC Act approval.

6.1.1. Delivery Phase

The following monitoring and reporting activities will be adopted in the delivery (design and construction) phase.

Monitoring

The CEMP (and SEIPs) must document the relevant environmental monitoring requirements for the Project. The environmental monitoring program must identify all monitoring requirements to be implemented that assess potential impacts to the environment and effectiveness of mitigation measures, including at a minimum monitoring requirements outlined in Section 5 of this AMP (e.g. SW3, FF4). Monitoring will include periodic inspections of works areas where there is potential for environmental risks to occur. During the construction phase of the Proposed Action the following activities (as a minimum) will be undertaken by suitably trained and qualified personnel.

- Daily site environmental walkovers
- Weekly site environmental inspections
- Monthly internal CEMP audits
- Records must be maintained that demonstrate these activities are being undertaken.

Reporting

The CEMP must document the reporting requirements for the Contractor to National Intermodal. This must include a monthly report that will include results of site inspections, audit findings, corrective actions taken to address any non-conformances, monitoring results, incidents and non-compliances and actions taken to rectify and pursue continuous improvement in overall performance.

All environmental incidents shall be reported to National Intermodal by the Contractor within 24 hours. In the event of a significant environmental incidents, an incident investigation report must be prepared by the Contractor for National Intermodal within 7 days.

Records must be retained by the Contractor, including but not limited to:

- Site inductions and training;
- Removal of vegetation (Including number of trees and native vegetation);
- Spoil movement tracking and waste disposal records;
- Environmental incidents and non-conformances; including copies of any incident correspondence sent to Regulators, and,
- Site monitoring and auditing activities.

6.1.2. Operational Phase

The OEMP must document the reporting requirements for the Operator to National Intermodal. This must include a 12-monthly report that will include results of all environmental data, and incidents and non-compliances and actions taken to rectify and pursue continuous improvement in overall performance.

Records must be retained by the Contractor, including but not limited to:

- Site inductions and training;
- Environmental data (energy usage, waste records, etc)
- Environmental incidents and non-conformances; including copies of any incident correspondence sent to Regulators, and,
- Site monitoring and auditing activities.

The EMRs outlined in the EMF are intended to support environmental management practices during the transition from construction to operation phase. The EMF is not intended to apply in perpetuity, given the state of knowledge and legislative requirements in respect to environmental management may change over time. Therefore, it is considered after implementation of the relevant EMRs for a period of 24 months, the operational EMRs defined under the EMF are considered as being achieved and will no longer apply. A current OEMP will become the mechanism for ongoing environmental management after this time.

6.1.3. Compliance

National Intermodal will be responsible for undertaking and implementing all compliance requirements in accordance with the EPBC Act Approval. The likely approval compliance requirements are documented below in Table 6-1.

Table 6-1: Compliance Requirements

Compliance Requirement	Description
Compliance Records	National Intermodal will maintain accurate and complete compliance records
	If requested, National Intermodal will provide copies of compliance records to the department within the timeframe specified
	National Intermodal will ensure that any monitoring data (including sensitive ecological data), surveys, maps and other spatial metadata required under the conditions of the EPBC Act approval are prepared in accordance with the department's standards, or a subsequent official version or as otherwise specified by the Minister
	National Intermodal will submit all monitoring data (including sensitive ecological data) surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department within the specified timeframe
Compliance Reporting	National Intermodal will prepare all compliance reports within the specified period following the date of the EPBC Act approval, or as otherwise agreed to in writing by the Minister.
	Each compliance report prepared by National Intermodal will be consistent with the department's Annual Report Guidelines, or any subsequent official version
	Each compliance report will include: a. accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents b. shapefiles of all clearing of any protected matters, and/or their habitat, undertaken within the specified period of which the compliance report is prepared c. a schedule of all plans in existence in relation to the conditions specified in the EPBC Act approval
	National Intermodal will publish the compliance report on the website within the stipulated timeframe detailed in the EPBC Act approval
Non-compliance reporting	National Intermodal will notify the department electronically when made aware of any incident/ potential non-compliance/ actual non-compliance.
Independent Audit	National Intermodal will ensure that an independent audit of compliance with the conditions outlined in the EPBC Act approval is conducted within the stipulated timeframe, unless otherwise specified by the Minister

6.2. Environmental Management Plan Reviews

The AMP must be approved by the Minister for Environment and Water prior to the commencement of works. Any subsequent revisions to document will need to be approved by the Minister for Environment and Water. Minor administrative updates will be approved by National Intermodal.

The AMP will be reviewed annually or in the event of an environmental incident (as defined in Section 3.4)., or otherwise in accordance with the EPBC Act Approval.

7 References

Alluvium. (2021). *Hanna Swamp Investigation.* Victorian Planning Authority.

Aurecon. (2025). *Beveridge Intermodal Precinct: Stage 1A Surface Water Modelling and Assessment - Revision 5.* National Intermodal Corporation.

Biosis. (2025). *Beveridge Intermodal Precinct Stage 1A: Flora and fauna assessment - Final report.* National Intermodal Corporation.

DCCEEW. (2023). *Conservation Advice for Tympanocryptis pinguicolla (Victorian grassland earless dragon).* Commonwealth of Australia.

DCCEEW. (2023). *Draft National Recovery Plan for Four Grassland Earless Dragons (Tympanocryptis spp.) of Southeast Australia.* Commonwealth of Australia.

DCCEEW. (2024). *Environmental Management Plan Guidelines.* Canberra: Commonwealth of Australia.

Department of Environment. (2013). *Australian Government Significant Impact Guidelines 1.1 Matters of National Environmental Significance.* Canberra: Commonwealth Department of Environment.

DSEWPaC. (2013). *Significant Impact Guidelines: Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies.* Canberra: Department of Sustainability, Environment, Water, Population and Communities.

DSEWPC. (2012). *Approved Conservation Advice for the Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains.* Commonwealth of Australia.

Robertson & Evans. (2009). *National Recovery Plan for the Grassland Earless Dragon Tympanocryptis pinguicolla. As varied October 2012.* Canberra: ACT Department of Territory and Municipal Services.

Appendix A: Environmental Risk Register Matrix

The following section outlines the qualitative risk assessment methodology used to inform

Table 4-1 in Section 4.2.

The risk ratings assigned to each environmental impact have been assessed using the likelihood (Table A-1) and consequence (Table A-2) criteria described below. Such ratings were then combined using the risk rating matrix (Table A-3) to generate a risk rating of low, medium, high or severe for the Project.

Table A-1 Likelihood

Qualitative measure of likelihood	How likely is it that this event/issue will occur after control strategies have been put in place
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the project
Possible	Might occur during the life of the project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Table A-2 Consequences

Qualitative measure of consequences	What will be the consequence/ result if this issue does occur rating
Minor	Monitor incident of environmental damage
Moderate	Isolated by substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Table A-3 Risk Rating Matrix

		Consequence				
		Minor	**Moderate**	**High**	**Major**	**Critical**
Likelihood	**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

Appendix B: Victorian Grassland Earless Dragon Pre-clearance Survey Methodology

Pre-clearance VGED habitat survey

Prior to any construction or earthworks commencing, the following pre-clearance protocols must be undertaken for all areas mapped as low potential VGED habitat within the project area.

Areas of low potential habitat and areas of negligible habitat that may offer potential dispersal habitat dependent on seasonal wetting and drying have been identified within the site in the VGED Habitat Assessment (Biosis, 2024).

Areas identified as low potential habitat will be subject to pre-clearance survey (confirmed survey area).

Areas identified as potential dispersal habitat may be subject to survey dependent on the outcomes of the site walkover (Section 2b below) (potential survey area).

Both areas are shown on Figure 1 below.

Pre-clearance survey will include active searching of burrows and/or soil cracks by a qualified ecologist with an endoscope and should comply with the below recommendations.

1) Timing:

a) Survey should be undertaken a minimum of 2 weeks prior to commencement of any ground disturbing works within the site (regardless of season).

b) It is noted that works may be undertaken in a staged manner (heritage salvage operations of stony knolls may be required ahead of construction), as such pre-clearance surveys may occur in a staged manner to adhere to project schedule, provided no disturbance occurs in areas that have not been surveyed and all recommendations of this protocol are adhered to.

2) Site-preparation:

a) Minimum of one week prior to the pre-clearance survey a site walkover should be undertaken to review biomass/ground visibility in the confirmed survey area. If deemed necessary, the area should be mown and/or slashed to increase visibility prior to survey taking place.

b) The site walkover should also assess the suitability of the potential survey area to support VGED at the time of construction commencement. Noting that if the area is inundated at the time of site walkover pre-clearance survey is not warranted.

c) The works area will be clearly marked to prevent unnecessary access by construction personnel/vehicles/machinery into areas outside those designated for construction/earthworks.

d) Erosion and sediment control measures will be installed to protect surrounding retained habitat. These will be continually assessed to ensure effectiveness and provide opportunities to make any necessary improvements or adjustments.

3) Habitat inspection:

a) In areas to be disturbed, the Project Ecologist (with supporting ecologists) is to check for invertebrate burrows by walking transects with multiple ecologists spaced at 5 metres apart through the extent of the disturbance area.

b) As identified all suitable burrows or other refugia recorded will be marked with flagging tape or similar. All identified burrows will be recorded using DGPS technology and photopoints.

c) Once all areas have been checked and marked, the ecologists will inspect any identified burrows with an endoscope to identify whether any VGED are present.

d) If burrow is found to be absent of VGED this will be recorded and marking removed.

e) Any other species found will be recorded.

4) Discovery protocol:

a) If VGED is found in a burrow, the following should be undertaken as per advice from Peter Robertson (pers. comm. September 2024)

   i) Attempt to capture the individual using the following method (or alternate method as recommended):

      (1) Temporarily plug the burrow entrance so the individual cannot escape.

      (2) Place a small bucket with bottom removed around the burrow to prevent the individual from escaping.

      (3) Gently insert a piece of flexible wire (e.g. spring type curtain wire) to assist in following the burrow.

      (4) Use a small trowel to dig out the burrow and secure the individual and place it into a secure, protected and thermally suitable catch bag or breathable container.

   ii) If capture is not possible follow the Rediscovery response protocol as described within the Draft National Recovery Plan for Four Grassland Earless Dragons (*Tympanocryptis spp.*) of Southeast Australia (DCCEEW 2023). This response protocol is provided in Table 1 below.

b) Pause all construction activity onsite that may have a detrimental impact on the rediscovered population. Works may not recommence until appropriate clearance is provided by DCCEEW or another authorised party as advised by DCCEEW.

c) Hold captured individual(s) in individually secured, protected and thermally suitable catch bags or breathable containers until the Grassland Earless Dragon Recovery Team can advise about an appropriate course of action for recovery.

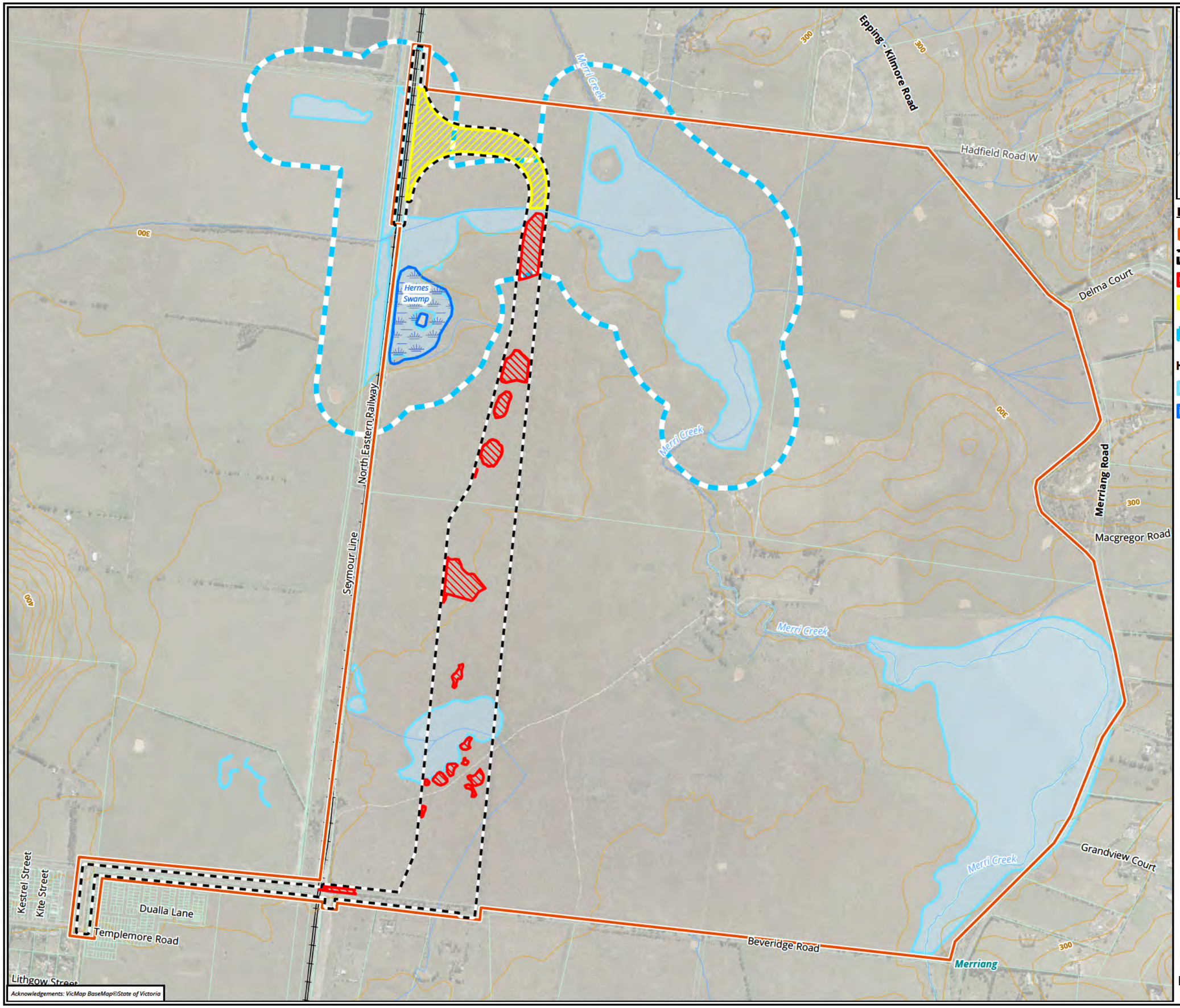
5) Reporting:

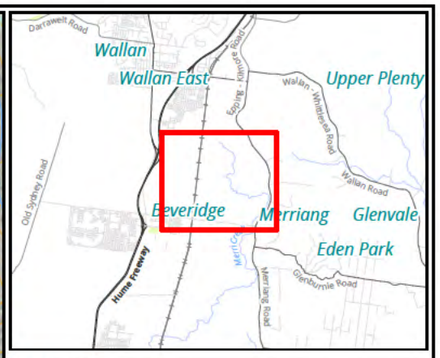
a) Following completion of the pre-clearance survey a report will be prepared and provided to DCCEEW outlining the methods used for pre-clearance, the timing of the survey and the results including mapping of spider burrows that were recorded and inspected.

References:

DCCEEW 2023. Draft National Recovery Plan for Four Grassland Earless Dragons (Tympanocryptis spp.) of Southeast Australia', Commonwealth of Australia 2023

Biosis 2024. Beveridge Intermodal Precinct – Stage 1A – Victorian Grassland Earless Dragon *Tympanocryptis pinguicolla* habitat assessment. Report for National Intermodal Corporation. Biosis Pty Ltd, Melbourne, Vic. Project no. 39673





Legend

- Study area
- Stage 1A boundary
- Confirmed VGED survey area
- Potential VGED survey area
- Area excluded from MSA approval zone

Hydrography

- Current wetland (DEECA)
- Swamp

Figure 1 VGED pre-clearance survey

0 100 200 300 400 500

Metres

Scale: 1:14,000 @ A3

Coordinate System: GDA2020 MGA Zone 55

N

biosis

APEM Group

Matter: 39673,

Date: 06 February 2025 ,

Prep [redacted]

Project: P:\39600s\39673\Mapping\39673_EPBC_Ref_1A.aprx

Table 1: Rediscovery response protocol (Taken from DCCEEW 2023)

Timeframe	Action	Responsible partner/s
Within 24 hrs of rediscovery	Discretely notify: • The landholder or their delegated agent (e.g. manager). • The Grassland Earless Dragon Recovery Team. • The Commonwealth environment department (e.g. DCCEEW) national hotline 1800 803 772 • The Victorian environment department (DEECA). • The local council. • The local Traditional Owner group.	Survey team & Grassland Earless Dragon Recovery Team.
	Pause any action or activity that may have a detrimental impact on the rediscovered population.	Land holder or their delegated agent (e.g. manager) as advised by the Grassland Earless Dragon Recovery Team.
	Adapt any fauna survey program at the site to focus on the redetection area to: • Temporarily hold all captured individuals in individual secured, protected and thermally-suitable catch bags or breathable containers (with shelter) until the Grassland Earless Dragon Recovery Team can advise about an appropriate course of action for recovery. • Enable an indicative population density / abundance value to be estimated.	Survey team in consultation with the land holder or their delegated agent (e.g. manager).
As soon as is practicable after rediscovery e.g. within 1-3 days	Identify the most beneficial course of action for the redetected species by rapidly assessing the level of immediate risk to the population. Factors to be considered include: • Current activities at, and adjacent to, the detection location. • Imminent planned activities at, and adjacent to, the detection location. • Observed and inferred threat risk at the detection location. • General grassland condition.	Grassland Earless Dragon Recovery Team with support from the survey team and in consultation with the land holder or their delegated agent.
	Identify if there is an urgent need to harvest individuals from the rediscovered population for a captive care program based on the rapid threat risk assessment and detection rates. Provide advice about any demographics to be harvested from the population. Collect and safely store genetic material from captured individuals.	Grassland Earless Dragon Recovery Team with support from the survey team and captive facility provider.
	Provide advice to all notified agencies and organisations about the proposed immediate course/s of action for the rediscovered population.	Grassland Earless Dragon Recovery Team.
	Negotiate with landholder or their agent about how essential recovery activities can continue to be implemented while enabling essential landholder activities to re-commence as soon as is practicable.	Grassland Earless Dragon Recovery team & landholder or their delegate.
Within the first week of rediscovery.	If a captive care program is advised by the Grassland Earless Dragon Recovery Team: • Retain captured individuals who fit the required demographic for the captive population in suitable temporary housing until captive facilities are prepared. • Prepare captive facilities (and transport retained individuals once they are ready).	Survey team & captive facility provider.

	Thoroughly document habitat at the discovery site (including photographs) to inform future planning and survey efforts in the region. Habitat attributes to be assessed include: • Grassland composition, condition, and structure. • Connectivity and isolation. • Presence / abundance of burrow shelters and invertebrates. • Presence and intensity of potential threats (see Figure 7).	Survey team.
	Complete a local mapping exercise to identify additional sites in the local area that may support the species based on the habitat assessment at the rediscovery site.	Grassland Earless Dragon Recovery Team.
	Begin planning for follow-up targeted searches by experts at additional sites that may support habitat, and implement the surveys as soon as is feasible	Grassland Earless Dragon Recovery Team & survey team.
Within the first month of rediscovery	Develop and begin implementing a site-specific recovery action plan for in situ and, where relevant, ex situ management of the detected population.	Landholder or their delegate with support from the Grassland Earless Dragon Recovery Team.
	Source ongoing funding to implement essential recovery actions.	Grassland Earless Dragon Recovery Team.
	Update generalised distribution mapping that informs planning and regulation for the rediscovered species.	State & Cwth environment agencies.
	Begin implementing targeted surveys at additional sites in the area that may support the species	Survey team.
Longer term actions e.g. within the first year of rediscovery.	Revise the listing assessment and conservation advice for the species.	State & Cwth environment agencies.
	Develop and implement a long-term and integrated population, habitat, and threat monitoring plan for all rediscovered subpopulations.	Grassland Earless Dragon Recovery Team.
	Identify areas for reintroduction and habitat restoration. Develop a reintroduction plan.	Grassland Earless Dragon Recovery Team.
	Develop research programs that clarify habitat requirements, threat impacts and effective threat management actions.	Grassland Earless Dragon Recovery Team.
	Investigate options for long-term in situ protection of the species.	Grassland Earless Dragon Recovery Team.
	Organise long-term storage of genetic material.	Grassland Earless Dragon Recovery Team.
	If a captive program is deemed to be an appropriate recovery action for the rediscovered species, start increasing the captive population abundance and genetic diversity as per guidance from successful programs for the Canberra GED.	Captive facility provider.