

Colac Pipeline Upgrade Offset Management Plan

for Yellow-bellied Glider *Petaurus australis
australis* (south eastern) and Gang-gang
Cockatoo *Callocephalon fimbriatum* -
450 Morris Track, Lavers Hill



Environment Protection & Biodiversity Conservation Act 1999 referral
(2022/09343)

Report prepared for GHD
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Glossary

Term	Definition
CaLP Act	<i>Conservation and Land Protection Act 1994</i>
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEECA	Department of Energy, Environment and Climate Action
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1988</i>
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
HHa	Habitat Hectare
MNES	Matters of National Environmental Significance
NVR (Map)	Native Vegetation Regulation Map
NVCR	Native Vegetation Credit Register
NVOR	Native Vegetation Offset Register
OMP	Offset Management Plan
PD	Preliminary Documentation (supplied to DCCEEW to inform the assessment and approvals process for a controlled action)
PMST	Protected Matters Search Tool
PV	Parks Victoria
Section 69 Agreement	A Landowner Agreement created under Section 69 of the <i>Conservation, Forests and Lands Act 1987</i> that is signed by the landowner and the secretary to DEECA to secure an offset site on title.
VBA	Victorian Biodiversity Atlas
VQA	Vegetation Quality Assessment

Version Control

Version	Responsibility	Name ¹	Date	Signature
1.0	Primary author and field ecologist	Louise Rodda	03/09/2024	
1.0	Assistant author and field ecologist	Matthew Lee	19/07/2024	
1.0	Advice and internal review	David De Angelis	04/09/2024	
1.1	Text and format updates	Louise Rodda	04/09/2024	

¹ Authors and field ecologists pen portraits are provided in Appendix 1

Version	Responsibility	Name ¹	Date	Signature
1.2	Text updates to address client feedback	Louise Rodda	02/10/2024	
1.3	Minor text updates to address client comments	Louise Rodda	07/10/2024	
1.4	Update Environmental Management Roles & Responsibility Table – Role Title information	Louise Rodda	07/10/2024	
1.5	Text updates to address and reference EPBC approval conditions	Louise Rodda	25/09/25	
1.6	Minor text updates to address client comments	Louise Rodda	27/10/25	
1.7	Updated table of contents formatting (and minor text updates 13 April 2024, Update spatial files 17 April 2026)	Louise Rodda	28/10/25	

Cover photo: Wet Forest habitat for Yellow-bellied Glider *Petaurus australis* and Gang-gang Cockatoo *Callocephalon fimbriatum*, 450 Morris Track, Lavers Hill

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- Brendan Janissen – GHD, Botanist
- Nathan Stones – Barwon Water, Senior Project Manager.
- Giles Flower – Barwon Water, Senior Approvals and Environmental Advisor.
- Carlie Bronk – Parks Victoria, Regional Program Coordinator (West) – Deer Control.
- Erin Nash – Parks Victoria, Regional Conservation Project Coordinator – (West Region)
- Katrina Lovett – Parks Victoria, Regional Conservation Program Coordinator – Western Region
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- Tim Miller – Planning Officer, Department of Energy, Environment and Climate Action, Forest Management and Roding, Otway District, Bushfire and Forest Services
- James Templeton, Conservation Ecology Centre, Conservation Project Manager

Nomenclature and taxonomy

Plant taxonomy and the use of common names of vascular plants and mosses follow the online Victorian Biodiversity Atlas (VBA) (DEECA 2024a) and the Flora of Victoria online (VicFlora 2024). Where names differ between these sources, the VBA naming protocol is followed. Plant names include common name followed by the scientific name (in italics) when first mentioned in the text and thereafter referred to by the common name.

The use of scientific and common names for fauna follows the latest treatments for threatened species under state and federal legislation, and the latest taxonomic treatment (accepted by most taxonomic authorities) published in the peer-reviewed literature.

Plant origin follows the VBA. Where an asterisk (*) precedes a plant or animal name, it signifies non-native taxa, those species that have been introduced to Australia. A hash (#) is used to denote Australian (including Victorian) native plant or animal species that are not indigenous to the locality and may have the potential to become invasive.

Conservation status

Species conservation status is allocated in accordance with the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act).

Cover page

Item	Details
EPBC reference number	EPBC 2022/09343
Project name	Colac Pipeline Upgrade Sections 19, 20, 21, 23 and 25(i)
Proponent/approval holder	Barwon Region Water Corporation
ACN/ABN	86 348 316 514
The proposed /approved action	<p>The Colac (water supply) Pipeline Upgrade Project.</p> <p>The project includes upgrades to five sections of the existing pipeline totalling approximately 4.3 km, to provide the bulk water supply to Colac, Victoria [See EPBC Act referral 2022/09343 and variation of conditions dated 26 July 2024]. The works will include the removal of habitat for three EPBC listed species which are Matters of National Environmental Significance, this must be limited to 7.31 ha of habitat for Gang-gang Cockatoo <i>Callocephalon fimbriatum</i> (GgC), 5.07 ha of habitat for Yellow-bellied Glider <i>Petaurus australis australis</i> (YbG), 7.81 ha of habitat for Long-nosed Potoroo <i>Potorous tridactylus trisulcatus</i> (South-East Mainland) (LnP) and 26 potential hollow-bearing trees.</p>
Location of the action	<p>Between the West Gellibrand and Olangolah Reservoirs, and Colac</p> <p>The northernmost point of the proposed action area is some 12 km south-southeast of Colac, Victoria, while the southernmost point is some 6 km west of Forrest. The sections of the existing Colac Pipeline that are to be replaced are in a road reserve adjacent to the Otway Forest Park (approximately 1 km of pipeline) and in the Great Otway National Park (approximately 3.3 km of pipeline).</p> <p>The pipeline replacement works are proposed to occur across multiple parcels of mainly Crown Land. Specific street addresses are not available; however, the following locations may assist in map searching:</p>

Item	Details
	<ul style="list-style-type: none"> • Pipeline Road, Barongarook VIC 3249 • Colac-Olangolah Pipeline Track, Kawarren VIC 3249 • Pipeline Road, Kawarren VIC 3249
Date of preparation of the Offset Management Plan (OMP)	27/10/2025
Persons accepting responsibility for the OMP	Dr. Giles Flower , Barwon Water, Senior Approvals and Environmental Advisor (or successor)
<p>Providing false or misleading information to authorised officer etc.</p> <p>(1) A person is guilty of an offence if the person:</p> <ul style="list-style-type: none"> (a) provides information or a document to another person (the recipient); and (b) knows the recipient is: <ul style="list-style-type: none"> (i) an authorised officer; or (ii) the Minister; or (iii) an employee or officer in the Department; or (iv) a commissioner; <ul style="list-style-type: none"> • performing a duty or carrying out a function under this Act or the regulations; and (c) knows the information or document is false or misleading in a material particular. <p>(2) The offence is punishable on conviction by imprisonment for a term not more than 1 year, a fine not more than 60 penalty units, or both.</p> <p>Note: Subsection 4B of the Crimes Act 1914 lets a court fine a body corporate up to 5 times the maximum amount the court could fine a person under this subsection.</p>	

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 *GE Flower*

Full name (please print) Giles Flower

Organisation (please print) Barwon Region Water Corporation

Date 17 / 11 / 2025

Environmental management roles and responsibilities

Must include personnel responsible for undertaking the following roles for this project:

- Emergency contact.
- Reporting of environmental incidents and emergencies.
- Checking and keeping documented records of completion of site inductions, understanding and compliance with the OMP requirements.
- Monitoring results which exceed the trigger values for corrective action.
- Auditing compliance all personnel with this OMP requirements.
- Reporting non-compliance with approval conditions to the relevant authority.

Contact details	Title/position (Including Barwon Water staff and subcontractors)	Role/s	Responsibilities
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Management of Contractors, project logistics, budget and timelines
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and	Environmental Advisor	Obtain approvals, review and approval of contractor environmental documentation, onsite

Contact details	Title/position (Including Barwon Water staff and subcontractors)	Role/s	Responsibilities
	Healthy Country department		environmental inspection and audit
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Emergency contact
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Reporting of environmental incidents and emergencies.
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Checking and keeping documented records of completion of site inductions, understanding and compliance with the OMP requirements.
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Monitoring results which exceed the trigger values for corrective action. Auditing compliance all personnel with this OMP requirements.
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Reporting non-compliance with approval conditions to the relevant authority.
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Undertaking and reporting on pest animal and wildlife control.

Contact details	Title/position (Including Barwon Water staff and subcontractors)	Role/s	Responsibilities
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Undertaking and reporting on weed control.
Ph: 1300 656 007	Senior Environmental Advisor from the Sustainability and Healthy Country department	Environmental Advisor	Undertaking flora and fauna monitoring and reporting results.

Conditions of approval addressed in this OMP

This OMP addresses the relevant approval conditions for the management of residual impacts on the following Matters of National Environmental Significance:

- Gang-gang Cockatoo (*Callocephalon fimbriatum*), EPBC listed Vulnerable
- Yellow-bellied Glider (*Petaurus australis australis*), EPBC listed Endangered

The offset site for Long-nosed Potoroo *Potorous tridactylus trisulcatus* (South-East Mainland) is located on a separate property and the OMP for that offset site is provided as a separate document.

The approval conditions history includes:

- Department of Climate Change, Energy, the Environment and Water EPBC Approval Conditions - Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343) dated 17 January 2024;
- Variation of conditions attached to approval –dated 26 July 2024; and
- Correction Notification for variation of conditions - dated 22 November 2024

The Correction of Notification for variation of conditions (22 November 2024) is provided in Attachment 1 and the OMP conditions and location where each condition is addressed in this document is provided below.

Condition	Requirement	Response	Location
8) OFFSET MANAGE MENT PLANS	To compensate for the residual significant impacts of the Action on Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo, within 30 business days of the date on which the Offset Strategy is approved by the Minister, the approval holder must submit to the department for approval by the Minister an Offset Management Plan (OMP) in respect of each offset site proposed in the approved Offset Strategy.	This document is the OMP for Gang-gang Cockatoo and Yellow-bellied Glider	Entire OMP document
8A	Each OMP must meet the requirements of the Environmental Offsets Policy and the Environmental Management Plan Guidelines to the satisfaction of the Minister . All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in each OMP must be SMART and based on referenced or included evidence of effectiveness. Each OMP must be prepared by a suitably qualified ecologist and must include:	The entire OMP addresses these requirement	Entire OMP document Appendix 1: Ecologist Pen Portraits pp.116-117
8A (a)	detailed information on the residual impacts to protected matters that will be compensated for by the offset (comprising both the securement of all offset sites and the habitat quality improvements to be achieved at each offset site), including all areas of habitat, and the habitat quality , for protected matters at all locations impacted by the Action which the offset is to address, (see points below).	Documented in this OMP	Residual impacts: s.4.1.1 pp.29-30. Securement: 'Offset site details' p.19 Habitat quality at Impact site: s.4 pp.28-31 Habitat quality and improvement at the offset site: s.5, s.6, s.8, s.9
8A (b)	the relevant protected matters and a reference to the EPBC Act approval conditions to which the OMP refers	Documented in this OMP	'Conditions of approval addressed in this OMP' pp.13-18
8A (c)	detailed information and a shapefile specifying the location, area and boundaries of each offset site,	Offset site location area and boundaries are provided in this OMP	Offset site details p.19 Figures 2-4 pp.108-110 s.5.1 p.32 shapefiles submitted separately

Condition	Requirement	Response	Location
8A (d)	detailed baseline information on the areas of the habitat, and the habitat quality , for protected matters on each offset site	Baseline field assessment data describing habitat and habitat quality for MNES is provided in this OMP	s.5 and s.6 pp.31-58
8A (e)	commitments to achievable offset outcomes at each offset site and the timeframes in which they will be achieved,	Commitments and timeframes for delivery of achievable offset outcomes are provided in this OMP	s.8 and s.9 pp.64-87
8A (f)	a table summarising all commitments to achieve the offset outcomes for protected matters at each offset site and a reference to where each commitment is detailed in the OMP	A summary table of commitments and location in the OMP of detailed information for each commitment is provided	s.9 which includes Table 12 pp.82-87
8A (g)	reporting and review mechanisms to inform the department annually regarding compliance with the management and environmental outcome commitments, and attainment and maintenance of the offset outcomes specified in the OMP	Documented in this OMP	s.11 pp.93-94
8A (h)	an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these	A risk assessment addressing these requirements is provided in this OMP	s.10. pp.88-92
8A (i) i) a monitoring program which must specify:	measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the protected matters .	A monitoring program to address these requirements is provided in this OMP	s.11 pp.94-106

Condition	Requirement	Response	Location
8A (i) ii)	trigger values for corrective actions.	Documented in this OMP	s.8 pp.64-81 s.10 and s.11 pp. 88-106
8A (i) iii)	the proposed timing (including season/time of day/frequency), methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the protected matters .	Documented in this OMP in the relevant sections	s.10 and s.11 pp. 88-106
8A (j)	corrective actions to be implemented to ensure all offset outcomes for the protected matters are achieved or maintained if trigger values are reached or performance indicators not achieved in the specified timeframes.	Documented in this OMP in the relevant sections	s.8 pp.64-81 s.10 and s.11 pp. 88-106
8A k)	references to related plans and conditions of approval (including state/territory approval conditions)	Documented in this OMP	s.7 pp. 58-64 (and this conditions of approval table)
8A (l)	how each offset site will be protected, including securement , and all offset outcomes maintained, at least until the expiry of the approval.	Documented in this OMP	Offset site details p.19 s.8 pp.64-81 s.11 pp.94-106
8B	If, after 90 business days after the date on which the Offset Strategy is approved by the Minister , the Minister has not approved any OMP in respect of an offset site proposed in the approved Offset Strategy, and the Minister notifies the approval holder in writing that one or more OMP is not suitable to approve, then, at least 20 business days after providing such notification, the Minister may approve a version of any such OMP that has been prepared by the department . The approval holder must commence implementing each approved OMP within 20 business days of it being approved by the Minister and continue to implement each approved OMP at least until the expiry date of this approval.	Noted here	Noted here
8C	The approval holder must, within 5 business days of commencing implementation of each OMP, notify the department of the date on which implementation of that OMP commenced.	Documented in this OMP	Offset site details p.19
9	The approval holder must secure each offset site specified in the approved Offset Strategy within 12 months of the date on which the Minister approved the Offset Strategy. The approval holder must ensure each offset site remains secured at least until the expiry date of this approval.	Documented in this OMP	Offset site details p.19 s.12 p.106

Condition	Requirement	Response	Location
9A	The approval holder must notify and provide evidence to the department in writing within five (5) business days of each offset site being secured.	Documented in this OMP	Offset site details p.19
9B	The approval holder must achieve the offset outcomes for each offset site specified in the approved OMPs by the time specified in the OMPs. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval.	Documented in this OMP	s.8 pp.64-81 s.11 pp.94-106 s.12 p.106
9C	The approval holder must, within 40 business days of the 12th anniversary of the commencement of OMP implementation : have each offset site specified in the approved OMPs assessed by a suitably qualified ecologist to determine if the offset outcomes specified in the OMPs have been achieved,	Documented in this OMP	s.11 p.93
9C (a)	submit to the department a report prepared by a suitably qualified ecologist detailing the areas and habitat quality of Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo , present in the month prior to the 12th anniversary of the commencement of OMP implementation in each offset site specified in the approved OMPs, and	Documented in this OMP	s.11 p.93
9C (b)	notify the department in writing of all offset outcomes at any offset site specified in an approved OMP which has not been achieved and the likely reasons that achievement of each offset outcome has not been realised.	Documented in this OMP	s.11, pp.93-94 and pp.105-106
24	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guidelines for biological survey and mapped data</i> , Commonwealth of Australia 2018, or as otherwise specified by the Minister in writing.	Documented in this OMP	s.11.2.1.2 p.105
25	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guide to providing maps and boundary data for EPBC Act projects</i> , Commonwealth of Australia 2021, or as otherwise specified by the Minister in writing.	Documented in this OMP	s.11.2.1.2 p.105
26	The approval holder must 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 20 business days of each anniversary of the date of this approval decision or in accordance with the requirements of the plans .	Documented in this OMP	s.11 p.93 s.11.2.1.2 p.105

Condition	Requirement	Response	Location
27	The approval holder must prepare a compliance report for each 12 month period following the date of this approval decision (or as otherwise agreed to in writing by the Minister).	Documented in this OMP	s.11, pp. 94-95 s.11.2, p. 106
28	Each compliance report must be consistent with the Annual Compliance Report Guidelines, Commonwealth of Australia 2023.	Noted here	
29	Each compliance report must include: a) Accurate and complete details of compliance and any noncompliance with the conditions and the plans, and any incidents. b) One or more shapefile showing all clearing of protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared. c) A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.	Noted here	
31	The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan .	Documented in this OMP	s.11 p.93-94
32	The approval holder must specify in the notification: Any condition or commitment made in a plan which has been or may have been breached. a) A short description of the incident and/or potential non-compliance and/or actual non-compliance. b) The location (including co-ordinates), date and time of the incident and/or potential non-compliance and/or actual non-compliance. Note: If the exact information cannot be provided, the approval holder must provide the best information available.	Documented in this OMP	s.11. pp.93-94
33	The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan . The approval holder must specify: Any corrective action or investigation which the approval holder has already taken. c) The potential impacts of the incident and/or non-compliance. d) The method and timing of any corrective action that will be undertaken by the approval holder.	Documented in this OMP	s.11 p.94

Offset site details

Site details	
Address of offset site	450 Morris Track, Lavers Hill, Victoria 3238
Land tenure	<u>Freehold</u>
Landowner	Barwon Region Water Corporation
Area of credit site (ha)	33.01
Assessor details	
Site assessor	Louise Rodda and Matthew Lee
Date of Assessment	25-26 June 2024
Details of the Land	
Parcel SPI	45\PP2089
Parish	BARWONGEMOONG
Local Government Area	Colac Otway Shire
Catchment Management Authority	Corangamite Catchment Management Authority
Bioregion	Otway Ranges
Planning scheme details	
Planning zones	Farming Zone (FZ)
Planning overlays	Bushfire Management Overlay (BMO) Erosion Management Overlay – Schedule 1 (EMO1) Environmental Significance Overlay – Schedule 3 (ESO3)
Security mechanism	
Type of security agreement	Barwon Water have agreed to enter into a first party offset agreement with the Secretary to the Department of Energy, Environment and Climate Action (DEECA) under Section 69 of the <i>Conservation, Forests and Lands Act 1987</i> (an in perpetuity agreement) immediately upon signed approval of this Offset Management Plan by the Department of Climate Change, Energy, the Environment and Water (DCCEEW). The approval holder will notify DCCEEW of the date of the commencement of the implementation of the OMP within 5 business days of the OMP being implemented. The approval holder must commence implementing this OMP within 20 days of it being approved by the Commonwealth Minister for the Environment. The approval holder will provide evidence to DCCEEW in writing within five (5) business days of the offset being secured.

Executive summary

Barwon Water are planning to upgrade the Colac water supply pipeline south Colac (the Colac Pipeline Upgrade project) (Colac Otway Shire Planning Permit No. PP259/2021-1). The work includes geotechnical investigations (now completed) and trenching works which will require the removal of approximately 7.31 ha of habitat for the Gang-gang Cockatoo (*Callocephalon fimbriatum*) (GgC), 5.07 ha of habitat for Yellow-bellied Glider (*Petaurus australis australis*) (YbG) and 26 potential hollow bearing trees.

Gang-gang Cockatoo is listed as Vulnerable and YbG is listed as Endangered under the EPBC Act 1999 and included in the category of 'listed threatened species and ecological communities' which is one of nine Matters of National Environmental Significance (MNES) under the EPBC Act. The works include the planned removal of 7.81 ha of habitat for a third MNES, Long-nosed Potoroo *Potorous tridactylus trisulcatus* (South-East Mainland) (LnP), EPBC listed as Vulnerable, which is addressed in a separate report.

As MNES are likely to be impacted, the project was referred to the Department of Department of Climate Change, Energy, the Environment and Water (DCCEEW) which deemed that the project to be a Controlled Action as it would have a significant impact on MNES.

In addition to mitigation actions in the proposed action area, compensatory offsets (Environmental Offsets) are required to counterbalance the residual impacts on YbG and GgC. A potential Environmental Offset site for these species was identified on a Barwon Water owned property at 450 Morris Track, Lavers Hill, c.28 km south-west of the proposed action area. The 74.41 property is surrounded by the Great Otway National Park and provides suitable GgC and YbG habitat, which were recorded onsite in February 2024.

Abzeco was commissioned by GHD on behalf of Barwon Water to prepare an Offset Management Plan (OMP) to protect, conserve and enhance habitat for YbG and GgC onsite to meet offset targets determined by the EPBC offsets guide. This OMP is part of the documentation being submitted for the EPBC referral (EPBC Ref: 2022/09343) approvals by the Minister in accordance with the varied approval conditions dated 26 July 2024.

Barwon Water have agreed to enter into a security agreement with the Department of Energy, Environment and Climate Action (DEECA) under Section 69 of the *Conservation, Forest and Lands Act 1987* to permanently secure a first party environmental offset on title. This will require Barwon Water and any future landowners to meet all management commitments in the OMP.

The OMP includes management commitments, adaptive management, risk assessment and monitoring and reporting requirements to be completed to manage threats to YbG and GgC identified on site. The measures are specific, measurable, achievable relevant and time bound (SMART) and designed to enhance, protect and maintain habitat for both species. The priority management actions include:

- Control of noxious weeds, high threat environmental weeds, and other weeds;
- Control of pest animals as defined under the *Conservations and Land Protection Act 1994*) (CaLP Act);
- Management of high threats (in addition to noxious weeds and pest animals) including:
 - Deer;
 - Cats;
 - Unauthorised access;
 - Fire;

- Macropod overgrazing/overbrowsing;
- Flooding and erosion;
- Cinnamon Fungus; and
- New and emerging threats.

To provide environmental co-benefits, the monitoring results will be shared with Parks Victoria (PV) to assist with the management of YbG and GgC habitat and populations across the Great Otway National Park.

1. Introduction

Abzeco was subcontracted by GHD on behalf of Barwon Water to undertake an offset site assessment and prepare a first party Offset Management Plan (OMP) for the nationally threatened Gang-gang Cockatoo *Callocephalon fimbriatum* (GgC), listed as Vulnerable under the EPBC Act, and Yellow-bellied Glider *Petaurus australis australis* (YbG), listed as Endangered under the EPBC Act.

Gang-gang Cockatoo is also listed as endangered in the Australian Capital Territory (ACT) under the *Nature Conservation Act 2014* (NC Act), endangered in New South Wales (NSW) under the *Biodiversity Conservation Act 2016* and endangered in Victoria under the FFG Act. Yellow-bellied Glider is listed as Vulnerable in the ACT under the NC Act, Vulnerable in Victoria under the FFG Act and Vulnerable in Queensland under the Nature Conservation (Animals) Regulation 2020 list.

The offset site is required to address offset requirements for proposed impacts on 7.31 ha of habitat for GgC, 5.07 ha of habitat for YbG and 26 potential hollow bearing trees that will result from planned upgrade works to the Colac water supply pipeline.

Environmental offsets are also required to address impacts on 7.81 ha of habitat of the nationally threatened Long-nosed Potoroo *Potorous tridactylus trisulcatus*, EPBC Act listed as Vulnerable nationally and FFG Act listed as Vulnerable in Victoria. The offset for LnP is located on a different property and that OMP is provided in a separate report.

1.1 Project description

Barwon Water plans to upgrade the Colac (water supply) Pipeline (the Colac Pipeline Upgrade project) and a planning permit has been issued by the Colac Otway Shire, Planning Permit No. PP259/2021-1.

As part of the planning approvals process, GHD undertook assessments of the impacts of the project on behalf of Barwon Water (GHD 2021). The results indicated that after considering all reasonable efforts to avoid and mitigate impacts, there will be significant residual impacts on protected matters including GgC, YbG (and LnP).

As the proposed works may impact MNES, specifically 'nationally threatened species and ecological communities', the project was referred to DCCEEW (EPBC referral No. 2022/09343).

The referral was considered by DCCEEW and on the 23rd of December 2022 it was deemed to be a 'Controlled Action' due to likely impacts on GgC, YbG and LnP habitat. Impacts on MNES must be offset in accordance with the EPBC Act offsets policy to compensate for the residual adverse impacts of the proposed action and the project must go through the assessment and approvals process.

Preliminary documentation (PD) was submitted to DCCEEW in December 2023 by GHD for assessment and approval. Initial project approval conditions were issued by DCCEEW on 17 January 2024 followed by a variation of conditions issued on 26 July 2024. One of the approval conditions includes the requirement for suitable offsets to compensate for the residual impacts to protected matters and the preparation of an Offset Management Plan (OMP) for each offset site. The requirements that must be addressed in each OMP are detailed in the approval conditions which are provided in Attachment 1. This OMP is being provided to fulfill Condition 8 of the EPBC approval dated 26 July 2024.

To meet the offset requirements for GgC and YbG, Barwon Water purchased a 79 ha property located at 450 Morris Track Lavers Hill. The site is situated c.28 km south west of the proposed site of the Controlled Action. Targeted surveys undertaken in 2024 confirmed suitable habitat on the property for

GgC and YbG and recorded both species on the property (GHD 2024), so the site is considered to offer suitable environmental offset site option for the project.

Based on the habitat and site conditions on the property, GHD calculated that an area of 30.34 ha will be required to offset 100% of the impact on GgC and 19.06 ha will be required to offset 100% of the impact on YbG on this property. The proposed offset site is located in the southern half of the property and covers 33.01 ha and is therefore predicted to meet approximately 108% of the offset requirements for GgC, and 173% for LnP.

Barwon Water are willing enter into a Landowner Agreement with the Secretary to the Department of Energy, Environment and Climate Action (DEECA) under Section 69 of the *Conservation, Forests and Lands Act 1987* (Section 69 Agreement) to secure the offset site on title. They have agreed to fund the establishment and management of the site for GgC and YbG and meet the minimum management commitments required by the Victorian Native Vegetation Offset Register (NVOR) (maintained by DEECA) to establish a first party environmental offset².

1.2 Objectives

The main objective of this OMP is to deliver ongoing protection and conservation of GgC and YbG habitat at the proposed offset site.

To achieve this the OMP provides:

- An assessment and documentation of vegetation condition on site;
- Specific measurable achievable, relevant, time bound (SMART) environmental management goals/outcomes to be achieved in the first 10 years then maintained in perpetuity;
- A site security mechanism, management methods and timing;
- Identification of responsible personnel/organisations;
- A monitoring program that collects quantitative comparable data including monitoring methods, timing, evaluation, and reporting requirements; and
- A risk assessment matrix and adaptive management responses to ensure the OMP achieves the targets and standards required by DCCEEW and the NVOR.

2. Gang-gang Cockatoo *Callocephalon fimbriatum*

The Commonwealth 'Conservation Advice for *Callocephalon fimbriatum* (Gang-gang Cockatoo) (DAWE 2022a) provides a description and conservation information about the species, and the information relevant to the offset site is summarised here.

2.1 Description

Gang-gang Cockatoos are relatively small, stocky cockatoos. Both sexes have medium grey feathers, and the males are distinguished by a red-feathered head and crest. Both sexes have, pale cream-edged feathers, and sometimes an orange to yellow wash on their breast or abdomen. The adult females often have more pronounced orange edges on their breast feathers and a solid grey feathered head. They are one of the smaller cockatoos measuring around 32-36 cm in length. Their wings are generally 20-26 cm

² First party offsets are offsets that are established on land owned by the landholder proposing to remove native vegetation. The alternative is third party offsets which are established on land owned by a third party.

in length and they have short, square tails. Young GgC's have a washed green appearance and otherwise look similar to the females. The birds pair for life and typically breed between October and January although breeding can occur earlier and later than this. The eggs hatch in around three to four weeks, and chicks are cared for by parents for up to 14 weeks.

2.2 Distribution

This endemic species' natural distribution is confined to south-eastern Australia. Records extend from Coffs Harbour, through southern Victoria to south-eastern South Australia. Records indicate that in the past their distribution was more widespread in New South Wales. An introduced population persists on Kangaroo Island in south Australia.

2.3 Habitat

Gang-gang Cockatoos are adapted to cool, temperate conditions and tend to migrate between higher and lower elevations throughout the year in search of food. In Victoria the species most frequently inhabits remnant, mature, wet, eucalypt forests with a dense, shrubby understory, as well as rainforests and subalpine snow gum woodland often in sheltered areas such as valleys in summer. They have also been recorded in regenerating forests. In winter many birds move to lower elevations where they occupy more open woodland vegetation in native bushland, also feeding on ornamental plantings in parks and gardens. Some individuals however have been recorded at higher elevations during winter while others are known to remain in lowlands all year round.

The GgC's feed on a wide range of canopy species, and to a lesser extent on understory trees, they rarely feed at ground level. They also eat insect larvae. They eat most components of plants including flowers, seeds, seed pods, and leaf buds of native and introduced species. In particular they favour native eucalypt and *Acacia* species. The preferred introduced food plants include Hawthorn *Crataegus monogyna* and Cotoneaster *Cotoneaster* spp. and other ornamental garden plants.

Gang-gang Cockatoos rely on mature forests and woodlands to provide suitable roosting, foraging and nesting hollows. The remaining large old growth hollow bearing trees commonly occur along waterways (areas along waterways are generally excluded from logging). The birds move around to find food sources that are available at the time (they are opportunistic feeders) and this can be seasonally variable (e.g. eucalypts may not flower every year or at the same time each year at a site depending on local, seasonal rainfall, temperatures etc.). This means the occurrence of these birds at a given location may be quite variable. They rely on the retention of a variety and wide distribution of suitable habitat to accommodate within and between year seasonal climate variability to access adequate foraging resources.

2.4 Threats

The main threat to GgC is habitat loss caused by:

- Native vegetation removal undertaken for native forestry operations, clearing of land for forestry plantations, expansion of agriculture and urban development. This has led to the loss of nesting and foraging resources.
- Inappropriate fire regimes such as increased frequency, intensity and extent of wildfires (due to climate change) and planned burns. This can lead to direct mortality, and indirect mortality from the loss of hollow bearing nesting trees (hollows take a long time to form). Fire can also lead to the loss of canopy trees, and dense, mature understory vegetation the species depends on for food, roosting places and for shelter from predators.

- Climate change with projected higher temperatures, reduced rainfall and associated increased risk of wildfires and planned burns. Warmer temperatures will reduce areas of cooler temperatures which is the preferred habitat of this species, this may lead to reduced survival rates. Climate change can also include changed rainfall patterns which may in turn alter the growth and flowering of food source trees and shrubs and recovery of vegetation from fire, in turn impacting the distribution and availability of food and roost sites and so the survival of these birds.
- Increased competition for resources required by GgC due to the increasing loss of native vegetation. Gang-gang Cockatoos may be driven or prevented from using nesting hollows by feral honeybees, Common Brushtail Possums *Trichosurus vulpecula* (which can also eat eggs and young), and bird species such as Rainbow Lorikeets *Trichoglossus moluccanus*, Eastern Rosellas *Platycercus eximius*, Galahs *Eolophus roseicapilla* and Common Mynas *Acridotheres tristis* that are all competing for declining numbers of hollows

2.5 Conservation and management priorities

The conservation and management priorities relevant to the offset site for GgC are:

Habitat

- Manage wildfire risk (fire risk reduction and fire suppression) to reduce impacts on GgC habitat.
- Protect unburnt areas located close to burnt areas to provide refuge.
- Prevent land clearing of GgC habitat.
- Retain hollow bearing trees in all known GgC nesting areas.
- Restore forests and woodland within the known range of GgC.
- Where nesting hollows are limited, develop, implement and monitor a nest box program to increase the number of nesting sites available to GgC (if lack of hollows is determined to be limiting factor).
- Monitor competition with GgC for nest hollows.
- Undertake control of native and invasive fauna if they are found to be significantly competing with GgC for nest hollows.

Survey and monitoring

- Undertake long-term regular monitoring to assess population and subpopulation trends.
- Identify and map habitat and assess habitat quality.

3. Yellow-bellied Glider *Petaurus australis australis* (south eastern)

The description and conservation information relevant to the offset site for YbG provided in the Commonwealth 'Conservation Advice for *Petaurus australis australis* (Yellow-bellied glider [south-eastern]) (DAWE 2022b) is summarised here.

3.1 Description

Yellow-bellied Gliders are nocturnal, arboreal marsupials and the second largest glider species in Australia. They range in size from 620 to 780 mm long (head to tip of tail). They have prominent hairless, pale coloured ears, grey to brown fur on their bodies, a black tail with a grey-edged base, and black stripe running the length of their back and tail. They also have black markings on their feet and on the edge of their gliding membrane, and a black stripe on each thigh. Young animals have pale bellies that yellow with age. Males and females are similar in size, females have longer tails. They reach sexual maturity at around two years of age and form monogamous pairs that produce one offspring per litter. They live for around six years in the wild. Yellow-bellied Gliders glide from tree to tree covering distances of 25 m on average and do not cross wide expanses of cleared land.

3.2 Distribution

The distribution of the YbG extends along the Australian coast from south-eastern Queensland to the south eastern corner of South Australia. The population distribution is patchy and somewhat fragmented due to land clearing and specific habitat requirements. Some 75% of the species records in Victoria occur in the eastern part of the state. The remaining 25% of records are located in the western part of the state including the Otways, Edenhope, Portland and Timboon.

3.3 Habitat

The preferred habitat of YbG is old growth wet or dry sclerophyll forests with winter flowering smooth barked eucalypts. Yellow Bellied-glidiers feed on sap (a critical food source), insects and their exudate, spiders, eucalypt nectar, pollen and manna. A variety of smooth barked eucalypt species are used by YbG to forage including access for sap feeding and decorticating bark that hang in ribbons and shelter insect prey. They are also known to feed on the sap of rough barked eucalypt species.

Family groups often have specific sap feeding trees which they revisit, generally <10. They cut V shaped notches into the trunk of the tree to access sap. They depend on forests with a high diversity of species to provide year round food sources. Yellow-bellied Gliders live in small social groups (2-6 individuals), with large, defended territories and at low densities. This is due to suitable foraging trees being widely distributed and offering varying foraging opportunities which are dependent on the season and climatic conditions.

The suggested minimum habitat area required to maintain a viable population is 180-320 km². Yellow-bellied Gliders require tree hollows to den in and shelter during the day. They prefer living hollow bearing trees but have been recorded in dead hollow bearing trees where there is a lack of living trees with hollows. Hollows large enough to support this species are thought to start to form in trees once they are over 100 years old which accounts for the greater numbers of YbGs' being recorded in old growth forests.

Western Victorian populations are considered to be important populations (the offset site is located in Western Victoria). Important populations are defined as stronghold populations, ecologically or genetically distinct populations (e.g., those at the limits of the subspecies' range or, outlying populations), research populations, and other populations where recovery actions are being implemented.

3.4 Threats

Habitat loss is the main threat to YbG and is caused by:

- Vegetation clearing and habitat fragmentation resulting from agricultural and urban development that has caused the loss of foraging and hollow bearing trees. This has severely impacted species numbers as YbGs populations require such a large home range to survive and they do not cross wide expanses of cleared land. This has also led to loss of genetic diversity.
- Timber harvesting which is one of the main threats to YbG due to associated loss of large hollow bearing den trees, sap and foraging trees and loss of canopy connectivity and habitat corridors. Timber harvesting may also alter micro climates, flora species structure, cover and composition, and fuel characteristics which influence ignition points and fire severity. Hollow bearing trees may also be lost during post burn timber salvage.
- Climate change which is predicted to lead to increased frequency and intensity of wildfires resulting from higher temperatures and decreased rainfall. Climate change is also predicted to lead to increased droughts which are associated with decreased rainfall, increased temperatures leading to water stress and impacting arboreal animals, vegetation condition and health and possibly sap flow. Habitat modelling suggests that climate warming may lead to habitat contraction or locational shift.
- Wildfire and planned burns causing direct mortality, and indirect mortality from the loss of habitat such as live hollow bearing trees, sap trees and other food sources. Planned burns can lead to loss of hollow bearing trees as part of site preparation as well as during the burn.
- Predation of YbG's by European Red Fox *Vulpes vulpes* and feral cats *Felis catus*. Remains of YbGs' have been found in fox scats and foxes have been recorded climbing trees. Although there have been no recorded YbG remains found in cat scats, cats have been recorded climbing sap feeding trees and the remains of similar species (the greater glider) have been found in cats scats.
- Habitat degradation by feral deer which includes the loss of sapling habitat trees caused by antler rubbing, trampling and browsing.
- Barb wire fencing which has led to the death of YbG through entanglement.

3.5 Conservation management priorities

The conservation and management priorities for YbG relevant to the offset site are:

- Maintain a sufficient area of suitable habitat and protection from threats to ensure population viability with a focus on habitat predicted to be suitable under future climate change conditions (to be informed by research).
- Carefully assess any planned burns (i.e. avoid elevated/crowning fires) and manage the risk of wildfires to minimise the severity and frequency of fires which can cause direct mortality and destroy habitat.
- Create habitat connectivity for existing populations with habitat predicted to be suitable under climate change conditions.
- Construct appropriate artificial hollows (nestboxes or chainsaw hollow) where there is a lack of available hollows. Chainsaw hollows are the preference for restoration of degraded habitat and potentially greater uptake by YbGs'.
- Avoid the use of barb wire fencing where fencing is required and remove/replace any existing barb wire fencing.

- Undertake post fire control of predators including European Red Fox, feral cats and introduced herbivores such as deer.

Survey and monitoring

- Undertake long-term regular monitoring to assess the effectiveness of management actions, population trends including abundance, population size, status and viability.
- Monitor the abundance, age, and size structure of sap trees and hollow bearing trees and response to management actions.
- Monitor the incidence of bushfire.
- Identify and map habitat critical to the species survival.

4. Impact site

Full details of the project relating to the proposed action area are provided by GHD in the PD including:

- Identification, location and quantification of the potential impacts; and

A discussion of:

- The relevant impacts of the project;
- The nature and extent of the potential short-term and long-term effects; and
- Any uncertainties regarding predicted impacts.

The impact assessment undertaken by GHD was informed by the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (DoE 2013).

The following proposed action area description is a summary of information supplied to Abzeco for the preparation of this OMP by GHD which included:

- Draft text extract from the report titled: *Barwon Water Colac Pipeline Upgrade (W1426) Ecological Impacts* (GHD 2021), and
- *Proposed Offset Site Morris Track, Lavers Hill. Targeted fauna and vegetation survey report*, unpublished report prepared for Barwon Water (GHD 2024).

The *Targeted surveys for Yellow-bellied Glider and Gang-gang Cockatoo – Colac Pipeline Project. Survey Report* (GHD 2022) was also reviewed online via the EPBC Public Portal.

4.1 Proposed action area

The proposed action area is located along the alignment of an existing pipeline that supplies water from West Gellibrand and Olangolah Reservoirs in the Otways to the township of Colac located c. 25 km northwest of the reservoirs (Figure 1). The pipeline needs to be upgraded as current and predicted future pipeline failures, associated water supply interruptions and maintenance requirements present risks to the main water supply to Colac.

Around 30% of the pipeline was replaced between 2003 and 2010 and now five different sections of the pipeline totalling 5 km in length have been identified as priority areas requiring immediate upgrades.

The proposed action area (Figure 1) (also referred to as the impact area) is 11.48 ha and consists of temporary and permanent project activities including vegetation clearing, pipeline trenching, construction laydown areas, no-go zones, access roads, and intersections within the construction corridor. No -go zones comprise of 3.13 ha of the project area. The majority of the impact area is a 10 m

wide x 4.3 km long length of proposed pipeline upgrade. The proposed action area includes a disturbance footprint of 7.81 ha, which equates to the area of proposed native vegetation removal, and clearing/modification of 2,620 trees 26 of which contain hollows.

In the design phase, changes were made to reduce the extent of vegetation and habitat removal for native fauna (detailed in the PD). During construction, efforts to reduce the trench width will be employed including:

- The use of trench shields to minimise trench width (typically to 1.2 m), increasing the distance between the trenching and vegetation by 1.4 metres either side of the trench.
- Engagement of an arborist to be onsite during construction to guide trenching, the placement of stockpile, laydown and storage locations and the micro alignment of the trench to avoid impacting tree protection zones (TPZs) where possible.

These actions may result in some vegetation being retained in situ but cannot be confirmed preconstruction, so a conservative approach has been taken and the trench width is assumed to be 4 m.

4.1.1 Residual impacts

There are no historical records prior to 2022 of GgC or YbG within the proposed action area, but there are past records for both species within the surrounding area (within 10 km of the proposed action area). Targeted surveys undertaken for the project recorded GgC and YbG within the proposed action area and surrounds in 2022 (GHD 2022). Suitable habitat was also identified within the proposed action area for both species including suitable foraging habitat and potential nesting and denning tree hollows (GHD 2022). Both these species are likely to be impacted given the potential extent of impacts.

The proposed extent of native vegetation clearing and adverse residual significant impact on MNES habitat includes 7.31 ha of GgC habitat, 5.07 ha of YbG habitat and a combined total of 26 hollow bearing trees (see summary in Table 1 and Offset Strategy Attachment 2)

The extent of residual impacts on GgC and YbG have been quantified based on the implementation of pre-construction mitigation measures. However, it is not possible to quantify the effect of mitigation measures implemented during the construction phase, so they have been listed, not quantified (Table 1) (excerpt from Final Preliminary Documentation [Nov 2023] provided by GHD August 2025).

Table 1. Extent of residual impacts on GgC and YbG following implementation of proposed pre-construction mitigation measures (quantified) and construction-phase mitigation measures (listed) (Source: excerpt from Final Preliminary Documentation [Nov 2023] provided by GHD August 2025)

Species	Extent of habitat to be removed or modified following the implementation of pre-construction measures	Possible reduction of impacts following mitigation measures during construction phase
Gang-gang Cockatoo	All vegetation within the action area is either foraging, roosting and/or connected habitat for this species (7.31 ha). Removal of up to 16 potential hollow-bearing trees (potential breeding habitat). Removal of habitat that is deemed suitable future breeding habitat (e.g., trees identified with currently unsuitable hollows, or trees of suitable diameter without hollows that may develop hollows in the future).	Possible reduction in number of hollow-bearing trees that will be removed. Possible reduction in number of future hollow-bearing trees that will be removed. Reduction in area of foraging habitat to be removed.
Yellow-bellied Glider	A large portion of vegetation within the action area is considered to be known foraging, potential denning and breeding habitat (5.07 ha). Removal of up to 13 potential hollow-bearing trees (potential breeding and denning habitat). Removal of habitat that is deemed suitable future breeding habitat (e.g., trees that may develop hollows in the future).	Possible reduction in number of hollow-bearing trees that will be removed. Possible reduction in number of future hollow-bearing trees that will be removed. Reduction in area of foraging habitat to be removed.

A schedule of commencement, completion and contingency dates were provided in a separate document included in the PD titled: *Colac Pipeline Upgrade- Preliminary Documentation Response-(EPBC 2022/09343)*. The schedule has since been updated and revised dates include project commencement in late 2024 with expected completion in mid 2025.

4.2 Site description

The proposed action area includes the 5-10 m wide corridor containing the pipeline easement and a vehicle track located within The Great Otway National Park.

The topography along the alignment is steeply undulating including steep slopes, gullies and ridges.

The vegetation is regularly slashed/mowed along the easement which contains some scattered large trees. Intact remnant native vegetation occurs along the edge of the proposed construction corridor.

The vegetation in the proposed action area is mostly cleared of trees and understory shrubs along the pipeline corridor which is regularly slashed. Some hollow bearing trees remain and there is a variably dense ground layer comprising native vegetation. Beyond the pipeline corridor, within the proposed action area, there is intact woodland and forest that provides suitable habitat for GgC and YbG. This vegetation is contiguous with the rest of the vegetation in the national park which provides suitable habitat for GgC and YbG.

The work area is located within the Corangamite Catchment Management Authority area and Colac Otway Shire and is located in the Otway Plain bioregion.

4.3 Site condition

Around 30% of the proposed action area was burnt in autumn 2022. Evidence suggests that the remainder of the proposed action area was last burnt more than five years ago.

The proposed action area may have been affected by opportunistic timber harvesting that occurred within the surrounding area 40+ years ago but evidence of recent logging was not observed.

Habitat hectare condition scores determined using the standard Victorian Vegetation Quality Assessment (VQA) method to assess vegetation condition and quality (DSE 2004) ranged from 0.60-0.76 out of a total score of 1.

There are no major barriers preventing movement of GgC and YbG throughout the project area and surrounding national park.

The proposed Action area provides suitable habitat for GgC and YbG as described in the conservation advice (DAWE 2022a, DAWE 2022b). Habitat required for the survival of the species includes hollow bearing trees and a variety of canopy and understory trees that provide flowering food resources year round for GgC and a high density of living hollow bearing trees and sap feeding trees within forested areas for YbG (DAWE 2022a, DAWE 2022b).

4.4 Threats

Threats within the proposed action area include illegal timber harvesting (felled and sawn trees) observed during the site assessments.

Fire has impacted part of the proposed action area but areas of habitat remain including hollow bearing trees, understory trees and shrubs, and sap feeding trees that would provide food, refuge and shelter while the burnt areas vegetation regenerate. The flora species in the proposed action area are adapted to survive and recover after fire.

There are highly likely to be impacts from deer on habitat and cats and foxes that may predate on GgC and YbG in the proposed action area as these pests are known to be present in the surrounding landscape but were not surveyed for during this assessment.

4.5 Offset opportunities

As the proposed action area is an existing pipeline easement which requires ongoing maintenance and upgrades and associated vegetation management, the establishment of an onsite offset is not a viable option. The pipeline easement and surrounding land is located in national park so there are no opportunities to establish environmental offsets nearby.

5. Offset site

The offset site is located within a 79.2 ha property c. 170 km southwest of Melbourne, 3 km North-west of the intersection of Great Ocean Road and Colac Road, Lavers Hill, and c. 27 km south-west of the proposed action area (Figure 2). The property is freehold land owned by Barwon Water. The offset site consists of 33.01 ha of uncleared forest in the southern half of the property (Figure 2). The property is surrounded by the Otway Forest Park on the northern, eastern and southern boundaries, Great Otway National Park on the north western flank and private land on the south western flank.

The offset site boundary is set back 6 metres from the property boundary to accommodate potential fencing and fire protection activities that may be required along the property boundary as stipulated in the Section 69 Agreement.

To confirm the suitability of the offset site a preliminary site assessment was undertaken by GHD in February 2024 which identified structurally and floristically diverse vegetation including similar vegetation communities and flora species to those recorded at the proposed action area and suitable habitat for GgC and YbG (GHD 2024).

There are historic records of GgC and YbG in and around the offset site and targeted surveys confirmed the presence of both species on site in February 2024 (GHD 2024). Details are provided in the report '*Proposed Offset Site, Morris Track, Lavers Hill targeted fauna and vegetation survey*' (GHD 2024).

5.1 Landscape context and location

The offset site is situated on the northern side of the Otway Range within the Otway Ranges Bioregion and is under the jurisdiction of the Corangamite CMA and the Colac Otway Shire Council. The site is zoned Farming Zone (FZ) and is covered by a Bushfire Management Overlay (BMO), Erosion Management Overlay – Schedule 1 (EMO1) and Environmental Significance Overlay – Schedule 3 (ESO3).

5.2 Site access

Vehicle access is via Morris Track which connects with an unnamed dirt track midway along the western property boundary (Image 1). The dirt track extends through the offset site and has an old, wooden, locked gate at the northern end (outside the offset site boundary) and is open and ungated at the southern end. The dirt track follows a spur that extends the length of the offset site ascending from the centre of the property to the south eastern corner of the property. The track extends into the adjoining crown land. The track is not included in the offset area and is referred to as 'the spur track' for the purposes of this report.

Morris Track is a 4WD track that intersects the western edge of property and forms the western border of the offset site (Image 2). It has a steel gate located near the north western corner of the offset site which is closed (locked) seasonally. There was evidence of unpermitted trail bike access occurring around the locked gate (fresh tracks each day of the assessment).

The site is unfenced and accessible on foot from the spur track and Morris Track. There are some steep well vegetated sections descending into gullies and two waterways, but they are accessible. There are multiple suitable crossing points along Chapple Creek (North Branch) and the creek in the drainage line on the western side of the offset site. There are no impediments for management such as fences, inaccessible slopes, or waterways that cannot be crossed and the landowner/contractors can access all areas of the site.



Image 1. The spur track (an old logging track) located on the central spur situated in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)



Image 2. Morris Track intersects the western side of the southern half of the property and forms the boundary of the offset site (located left side of photo), 450 Morris Track, Lavers Hill (June 2024)

5.3 Topography

The topography of the offset site and surrounding area is characterised by steep terrain that includes spurs and ridges alternating with deeply dissecting complex gully systems that include ephemeral drainage lines and perennial streams. The offset site has a central spur with a north westerly aspect. It is flanked by Chapple Creek (North Branch) situated in the north east section of the offset site and a gully with an ephemeral drainage line on the western side of the site. The drainage line does not connect with the creek, it flows south and the creek flows north east. The site elevation ranges from an altitude of c.240 m ASL at the top of the spur to c.170 m ASL in Chapple Creek (North Branch).

5.4 Geology

The underlying geology is early Mesozoic, Cretaceous sedimentary rock referred to as the Eumeralla Formation which consists of fluvial, braided stream deposits with volcanolithic sandstone, siltstone, mudstone, mud-clast conglomerate, with feldspar and quartz grains, and coal (GSV 2024).

5.5 Soil

The soils of the Otway Ranges overlying the early Cretaceous sediments are largely fertile loams and earths and highly variable (VicFlora 2024). The soil within the offset site varied from clay to sandy loams.

5.6 Climate

The climate varies across the Otway Ranges due to the variable topography. Around the main ridge of the ranges which sits at an altitude of c. 560 m A.S.L. the mean annual rainfall is c.1800 mm which is the wettest area in the Otway Range. The offset site is situated around 3 km north of the edge of the main range at a lower altitude so would be expected to have a lower rainfall and hot dry summers and cool wet winters with the heaviest rainfalls in winter and spring (VicFlora 2024).

The nearest weather station with climate data records is located at Weeaprounah (ID 090083) c. 10 km east of the offset site (BOM 2024). The station was open for 47 years and closed over 10 years ago in 2012 and was located on the main range so is not likely to provide climate data consistent with the offset site (BOM 2024). Other surrounding weather stations are on the top of the range, on the coast or much further inland away from the Otway Range so climate data is not likely to be reflective of that of the offset site (BOM 2024).

The species recorded on site typically grow in high rainfall areas (see Section 5.5 'Vegetation' below) so the annual rainfall is estimated to be quite high, most likely between 1000-2000 mm (VicFlora 2024).

5.7 Management

The property has been privately owned until it was purchased on 21 June 2024 by Barwon Water. As mentioned previously there is evidence of timber harvesting in the past across the spur. A review of NatureKit does not indicate any history of logging (DEECA 2024b).

At the time of the assessment, there was evidence of recent track works along the spur track where some vegetation had been damaged and been pushed off to the side in places (Image 3 and Image 4).

No information is available about what pest plant or animal control has been undertaken on site.

North of the offset site (within the property but outside the offset site) there is a cleared area (possibly cleared in the past for a potential house site) near the creek which has a high cover of weeds, the dominant weed is White *Arum-lily *Zantedeschia aethiopica* which could impact the offset site if it spreads. The area was cleared before purchase and Barwon Water plans to undertake weed control with a focus on *White Arum-lily in and around the clearing and allow the area to regenerate.



Image 3. Evidence of recent machinery damage along the spur track, southern half of the property, 450 Morris Track, Lavers Hill (June 2024)



Image 4. Evidence of vegetation pushed to one side along the spur track, southern half of the property, 450 Morris Track, Lavers Hill (June 2024)

5.8 Disturbance

Based on records of disturbance from NatureKit (an online biodiversity data exploration tool maintained by DEECA) (DEECA 2024b) the most recent fire in the area post 1970 (NatureKit records go back to 1970) was a planned burn undertaken in 2005 in the Otway Forest Park c.900 m north of the offset site but did not impact the offset site or the property. Prior to 1970, there were 10 large bushfires in the area between 1851 and 1983 including the 1939 fires. The 1939 fires impacted the site, but it is unknown if the other nine fires affected the site (FFMV2024, DSE 2019). Very High or Extreme forest fire danger days are predicted to increase by up to 60% by 2050 potentially leading to more frequent and intense fires (DSE 2019).

A review of NatureKit shows logging was undertaken across extensive areas in the surrounding Otway Forest Park until logging on public land in the Otways ceased in 2008 (DSE 2019), but there is no record of logging within the offset site. The closest logging coupe was an 11 ha area that was logged in 2001 immediately abutting the south east corner of the offset site. The track that follows the spur through the centre of the offset site (the spur track) connects with the old logging coupe so was likely to be an old logging truck track that has been maintained by the properties past landowners.

An area of 4 ha that included part of the northern edge of the property bordering Mount McKenzie Track was also logged in 1995 but did not impact the offset site (NatureKit 2024). As mentioned previously, this is evidence on site of past logging (even aged stands of trees and the occasional old cut stump) (Image 5) but no recent evidence of logging or firewood collection. Logging was undertaken on the higher ground avoiding gullies, so it is likely that the spur was logged historically – particularly given what appears to be a logging track through the centre of it. There are larger trees in the gullies and on lower slopes which also supports this conclusion.

It appears from a review of aerials and on ground assessments that the privately owned land west of Morris Track adjacent to the offset site has been used as a pine plantation (DEECA 2024b). There were few large trees, the occasional cut stump and the vegetation consisted of a dense stand of even aged *Olearia argophylla* along the border between the two properties. This vegetation pattern can be seen on aerials in this location and elsewhere on the property and stops at the property boundary. As there is no fencing it was decided not to include the area west of Morris Track as it may be impacted by future activities such as timber production undertaken by the neighbouring land owner which may use Morris Track for access.

No areas of erosion were noted during the site assessment. There was no evidence of unpermitted vehicle or other public access. There is no farmland near the offset site so stock access not a threat. No evidence of flooding was observed along the western drainage line or Chapple Creek (North Branch).



Image 5. An example of the young stands of trees present in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)

6. Site assessment

Abzeco undertook a desktop review and field assessment of the offset site to describe the vegetation condition, quality and structure, the GgC and YbG habitat on site, identify the habitat management requirements for these species and confirm the site's suitability in line with NVOR offset site standards.

6.1 Desktop review

A desktop review was undertaken to inform the field assessment, assist with interpretation of the results and for reporting. The following documents and online resources were accessed and reviewed:

DCCEEW documents:

- The *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (DSEWPC 2012);
- *Outcomes-based conditions policy* (CoA 2016a);
- *Outcomes-based conditions guidance*, (CoA 2016b);
- The *Environmental Management Plan Guidelines* (DCCEEW V1.2 2024e); and
- A review of the EPBC Threatened Species Scientific Committee conservation advice for *Petaurus australis australis* Yellow-bellied Glider (south-eastern) (DAWE 2022a) and Gang-gang Cockatoo *Callocephalon fimbriatum* (DAWE 2022b).

DEECA NVOR documents:

- A review of flora and fauna records within 5 km of the offset site held in the Victorian Biodiversity Atlas (VBA) online database maintained by DEECA to review floristic records (including threatened species listed under the EPBC Act and the FFG Act to confirm the suitability of the site for YbG and GgC (2024a);
- A search for ecological communities and flora and fauna species listed under the EPBC Act within a 5 km radius of the offset site using the online EPBC Protected Matters Search tool (PMST) to consider the suitability of the habitat for YbG and GgC and other MNES that may need to be considered at the site (DCCEEW 2024a);
- A review of DEECA's NatureKit online interactive map for Ecological Vegetation Class (EVC)³ modelled mapping of the area (both extant and pre-1750) disturbance history (including fire history) and administrative boundaries (DEECA 2024b);
- A review of relevant EVC benchmarks⁴ maintained by DEECA and available online to assist with the field assessment of vegetation condition and quality including species diversity, lifeform cover and structure and how this meets the site and habitat requirements for the GgC and YbG (DEECA 2024c);
- The Victorian *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) which includes information about eligibility requirements for offset sites;
- *Native Vegetation: sustaining a living landscape, Vegetation Quality Assessment Manual – Guidelines for applying the habitat hectares scoring method, Version 1.3* (DSE 2004) (the method used to score vegetation condition and quality on site);
- NVOR templates and guidance information (required to be used for the establishment of offset sites in Victoria) and provided by the NVOR to registered site assessors;

³ Ecological vegetation classes (EVCs) are a way of classifying vegetation in Victoria based on floristics, lifeforms, habitat, ecological processes, biogeographic range and particular environmental characteristics.

⁴ EVC benchmarks are specific to a particular bioregion and were developed to assess vegetation quality and condition against the benchmark condition of a mature undisturbed EVC of the same type. Benchmark scoring components include species diversity, vegetation structure, canopy health and cover, understory structure, recruitment, organic litter, logs, and landscape connectivity.

- First party offset site templates and forms;
- Management Standards and information sheets for native vegetation offset sites;
- Quality Assurance submission forms; and
- Shapefile templates.
- DELWP (2018a) *The Assessor's Handbook, Applications to remove, destroy or lop native vegetation, version 1.1 October 2018*. Department of Environment, Land, Water and Planning, East Melbourne; and
- The *First party offset guide* (DELWP 2018b).

Other documents and online tools:

- Examination of GIS data and aerial photography relevant to the offset site to assist with interpreting the vegetation, habitat and features (e.g. tracks) on site;
- A review of publicly available reports and unpublished reports and data provided by GHD for the subject site including:
 - GHD (2024) *Proposed Offset Site, Morris Track, Lavers Hill. Targeted fauna and vegetation survey report*. Unpublished report prepared for Barwon Water; and
 - Draft text extract from the report titled: *Barwon Water Colac Pipeline Upgrade (W1426) Ecological Impacts* (GHD 2021).
- A review of the property planning reports generated by the Victorian Department of Transport and Planning (DTP) online platform to determine zoning and overlays, and associated legal and policy obligations for the site (DTP 2024);
- A review of land title information held in the Victorian Register of Land accessed via the Landata online service to identify easements and other encumbrances that may affect the eligibility and management of the offset site (Landata 2024);
- Consideration of relevant obligations under legislation, government policies and strategies, based on the review of the abovementioned information which need to be considered in assessing the offset site's eligibility and management; and
- Other publicly available documents and studies on YbG and GgC.

6.2 Field assessment

A field assessment was undertaken by two qualified and experienced ecologists from the 24-26 June 2024. The site was traversed on foot to assess vegetation, YbG and GgC habitat components, identify threats and determine the location of permanent monitoring points.

The field assessment included collection of the following:

- An inventory of vascular plant species including native and exotic species and their percentage covers;
- Determination and mapping of EVCs;
- Habitat Hectare (HHa) assessments of vegetation condition in each EVC. Habitat Hectare assessments were undertaken in 25 m x 25 m plots to record variation in structural composition, quality and condition across the site and extrapolated out across each EVC (as per the Vegetation Quality Assessment Manual, V1.3, DSE 2004). The vegetation was fairly

homogenous in each EVC and it was found that the majority of species were able to be captured in 25 x 25 m plots;

- An estimate of the number of large eucalypt trees in the offset site⁵. The number of large trees were counted in 20 m wide belt transects traversed on foot along the spur track, Morris Track, parts of the western drainage line, along Chapple Creek (North Branch) and crossing each of the gullies on site ensuring each EVC was included. The total area sampled was seven hectares (21% of the site). The number of large eucalypt trees in the sample areas was extrapolated out to provide a total large tree estimate for the site;
- A description of suitable YbG and GgC habitat on site;
- Evidence and locations of threats impacting the site such as high threat weed species, disturbance by pest animals, *Phytophthora*, erosion, firewood collection, rubbish dumping, vegetation impacts following flood, and public access;
- Representative photos including:
 - Locations where HHa assessments were undertaken to illustrate the habitat and vegetation condition, quality and structural diversity on site;
 - Identified threats; and
 - Baseline monitoring photos for annual reporting.
- Coordinates of permanent photo points and baseline photos of identified threats requiring management.

6.3 Survey limitations

The flora list was compiled during a single survey in winter, and some annuals and seasonal species such as lilies, orchids and grasses may not have been evident during the survey. In addition, some spring flowering shrubs and forbs may not have been identifiable due to the lack of fertile material. However, the timing and length of the survey was considered adequate enough to determine and assess the quality of the habitat for YbG and GgC and to identify threats.

6.4 Findings

6.4.1 Vegetation

The vegetation in the offset site is contiguous with the adjoining Great Otway National Park to the west and the Otway Forest Park to the east and south. The entire site supports remnant native vegetation that grows in high rainfall areas and is adapted to damp, shaded, conditions.

The site supports a variably closed to open tall forest with a canopy largely dominated by eucalypts. Scattered openings occur in the tree canopy where large trees have fallen across the site (Image 6) and along Chapple Creek (North Branch) and the western drainage line where the canopy is dominated by large old Blackwoods *Acacia melanoxylon*.

⁵ Large trees are trees that reach the minimum diameter at breast height (a height of 1.3 m from the ground) for the characteristic canopy species included in the EVC benchmark.



Image 6. Example of one of the scattered canopy openings that occur across the site as a result of tree fall southern half of the property, 450 Morris Track, Lavers Hill (June 2024)

The understory vegetation is quite dense in places and includes a high diversity of ferns in the gullies and on lower slopes, and sedges and broad leaved shrubs on the higher slopes and on the spur. There is a high cover of lichen on various substrates including trunks, logs and rocks throughout the site and a high cover and variety of bryophytes on various substrates on the lower slopes and in the gullies.

There are stands of fairly even aged trees including a number of large trees but few old growth trees suggesting the site has been selectively logged some time ago (the occasional old cut stump provides some evidence of this).

The weeds on the property are mainly confined to vehicle tracks and the cleared area beyond the northern boundary of the offset site. There are very few weeds within the offset site and they are limited to occasional, small, scattered plants.

A total of 83 species were recorded across the offset site including 74 native species and nine introduced species (Appendix 2).

6.4.2 Ecological Vegetation Classes (EVC)

The DEECA predictive EVC modelling for the site includes: EVC 18 Riparian Forest along Chapple Creek (North Branch), EVC 31 Cool Temperate Rainforest along the western drainage line and EVC 201 Shrubby Wet Forest across the remainder of the offset site. The site assessment indicated that the vegetation on site was not consistent with these EVCs in some locations as outlined below.

Shrubby Wet Forest EVC 201

The vegetation at higher elevations on western and northern aspect slopes in the area and along the central ridge in the offset site is consistent with Shrubby Wet Forest (Images 7-9, Figure 3). It consists of a tall closed canopy dominated by Messmate Stringy bark *Eucalyptus obliqua*, the state threatened Brooker's Gum *Eucalyptus brookeriana* (listed as endangered under the FFG Act), smaller numbers of Mountain Ash *Eucalyptus regnans*, scattered Manna Gum *Eucalyptus viminalis* subsp. *viminalis* and Narrow-leaf Peppermint *Eucalyptus radiata*.

The understory includes a high cover of understory trees and shrubs, the dominant species includes Blackwood Hazel Pomaderris *Pomaderris aspera*, and Bootlace Bush *Pimelea axiflora* subsp. *axiflora*, with scattered Prickly Currant-bush *Coprosma quadrifida* (heavily browsed by deer), Musk Daisy-bush *Olearia argophyllya*, Snowy Daisy-bush *Olearia lirata*, Otway Wattle *Acacia leprosa* var. *magna*, Banyalla *Pittosporum bicolor*, Hop Goodenia *Goodenia ovata*, Privet Mock-olive *Notelaea ligustrina*, Tree Lomatia *Lomatia fraseri*, and Large Kangaroo Apple *Solanum laciniatum*.

The ground story comprises sedges, grasses, ferns and forbs including scattered pure stands of Tall Sword-sedge *Lepidosperma elatius* (Image 8), and a high cover of Forest Wire-grass *Tetrarrhena juncea* (Image 9). Mother Shield-fern *Polystichum proliferum* is quite common. Scattered Austral Bracken *Pteridium esculentum* subsp. *esculentum* and Rough Tree-fern *Cyathea australis* were also recorded. Other species include the occasional Mountain Clematis *Clematis aristata* (climber) and epiphytic Kangaroo Fern *Microsorium pustulatum* subsp. *pustulatum*. The ground story also includes scattered Ivy-leaf Violet *Viola hederacea*, Forest Starwort *Stellaria flaccida* and Wood Sorrel *Oxalis* species.

Weeds

There were very few weeds recorded in this EVC, they include a few scattered individuals of Common Bitter-cress **Cardamine hirsuta* s.s., and Self-heal **Prunella vulgaris*.



Image 7. Shrubby Wet Forest on the central spur located in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)



Image 8. Shrubby Wet Forest with stands of Tall Sword-sedge *Lepidosperma elatius* on the central spur, located in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)



Image 9. Shrubby Wet Forest with a high ground story cover of Forest Wire-grass *Tetrarrhena juncea* on the central spur, located in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)

Wet Forest EVC 30

Wet Forest EVC is not predicted by DEECA modelling to occur onsite. However the combination of plant species, vegetation structure and position in the landscape was consistent with Wet Forest in some areas modelled as Shrubby Wet Forest.

This EVC was identified in the gullies on sheltered slopes below the Shrubby Wet Forest and which is typically confined to higher elevation, more exposed western and northern slopes and the ridgeline (Image 10, Figure 3).

The closed canopy consists of a mix of species including Mountain Ash (the character canopy species of this EVC), Messmate Stringybark, Brooker's Gum and Manna Gum which is a characteristic mix of species for this EVC in some parts of the Otway ranges (VicFlora 2024).

The understory structure and species composition aligns with Wet Forest which is similar to Shrubby Wet Forest. It consists of scattered tall trees, predominantly Hazel Pomaderris and Musk Daisy-bush, with the occasional Blackwood. Below this the shrub layer is dominated by Snowy Daisy-bush, and scattered Prickly Currant-bush, Large Kangaroo-apple, Austral Mulberry *Hedycarya angustifolia*, Hop Goodenia, Bootlace Bush, Blanket Leaf *Befordia arborescens*, Balm Mint-bush *Prostanthera melissifolia*, Mountain Correa *Correa lawrenceana* var. *latrobreaana*, and Otway Wattle.

The ground story has a higher cover of tree ferns and ground ferns than Shrubby Wet Forest and is consistent with the level of cover expected for this EVC. The dominant species include Soft Tree-fern *Dicksonia antarctica* and Rough Tree-ferns. Common ground ferns also include Mother Shield-fern and Bat's Wing Fern *Histiopteris incisa*. There are scattered plants of the epiphytic Kangaroo Fern which is a benchmark life form for this EVC, epiphytes are not included in the Shrubby Wet Forest benchmark. Other typical species include Tall Sword-sedge and Forest Wire-grass. The ground layer also includes a good cover of Scrub Nettle *Urtica incisa* and scattered Shrubby Fireweed *Senecio minimus*, *Ranunculus* species, Matted Pratia *Lobelia pedunculata*, Tasman Flax-lily *Dianella tasmanica* and Mountain Clematis.

Weeds

There are a few scattered weeds recorded in this EVC including Sweet Vernal-grass **Anthoxanthum odoratum*, Spear Thistle **Cirsium vulgare*, Cocksfoot **Dactylis glomerata*, Yorkshire Fog **Holcus lanatus*, Flatweed **Hypochaeris radicata*, *Self-heal and Common Blackberry **Rubus anglocandicans*.

*Spear Thistle is a declared noxious weed under the *Conservation and Land Protection Act 1994* (CaLP Act). It is classified as restricted in the Corangamite Region. It is an offence to sell or trade restricted weeds.

*Common Blackberry is also a declared noxious weed under the CaLP Act and is classified as Controlled in the Corangamite Region. All landowners and land managers must prevent the growth and spread of Controlled weeds. It is also classified as a Weed of National Significance.



Image 10. Wet forest located in the southern half of the property, 450 Morris Track, Lavers Hill (June 2024)

Cool Temperate Rainforest EVC 31

Cool temperate rainforest is modelled as occurring along the western drainage line and this is consistent with the vegetation type recorded during the site assessment (Image 11, Figure 3). Along Chappel Creek North Branch, the modelled EVC is EVC 19 Riparian Forest which occurs along river banks, river terraces and gully heads of creeks and rivers. The field assessment found that the vegetation along the creek is more consistent with Cool temperature rainforest (Images 12-15, Figure 3).

The Cool Temperate Rainforest vegetation is described as a closed non eucalypt forest occurring in high rainfall areas within Wet Forest with a canopy of Myrtle Beech *Nothofagus cunninghamii* and Blackwood. Riparian Forest is characterised by a eucalypt dominated canopy. The understory species are fairly similar for both EVCs. Cool Temperate Rainforest has a higher cover of tree ferns and ground ferns and a lower cover of understory trees and shrubs compared to Riparian Forest.

The vegetation along the creek is dominated by Blackwood with one or two emergent Brooker's Gums and Manna Gums, no Myrtle Beech was present. In the Otways, Cool Temperate Rainforest is known to occur with a canopy solely comprising Blackwood (Earl and Bennett 1986 cited in VicFlora 2024). The authors also state this vegetation type may be associated with a reduced frequency of some typical but more sensitive ground and epiphytic ferns. They attribute the lack of Myrtle Beech to lower humidity and greater light as a result of fallen canopy trees, logging, and in locations at the limit of the species natural geographical range. The offset site is near the eastern most edge of the natural distribution of Myrtle Beech (DEECA 2024a) and there is evidence of past logging on site.

Myrtle Wilt is present in the Otways and is a fungal disease caused by a hyphomycete pathogenic fungus *Chalara australis*. The fungus is indigenous to Australia and only affects Myrtle Beech trees. It occurs in Tasmania and in Victoria, including the Otway Ranges. The fungus infects the roots and

stems and kills the tree (DSE 2005) Forest Fact Sheet. Myrtle Wilt: A disease of Myrtle Beech. Myrtle wilt may have impacted Beech Trees that may have occurred here in the past (DSE 2005).

The Cool Temperate Rainforest understory here has a few scattered shrubs that typically occur in this EVC including Prickly Currant-bush, Snowy Daisy-bush, Musk Daisy-bush, Austral Mulberry and Banyalla. The shrub covers are similar to the Cool Temperate Rainforest benchmark and lower than the Riparian Forest benchmark. The ground story includes tree ferns Soft Tree-fern and Rough Tree-fern at higher covers than Riparian Forest and a higher number and cover of ground ferns and epiphytic species than Riparian Forest but typical for Cool Temperate Rainforest. They included Lance Water-fern *Blechnum chambersii*, Fishbone Water-fern *Blechnum nudum*, Hard Water-fern *Blechnum wattsii*, Mother Shield-fern, Austral Bracken, Bat's Wing Fern, Leathery Shield-fern *Rumohra adiantiformis*, and epiphytes including Mother Spleenwort *Asplenium gracillimum*, Kangaroo Fern, Austral Filmy Fern *Hymenophyllum australe*, Narrow Filmy-fern *Hymenophyllum rarum*, Butterfly Orchid *Sarcochilus australis* and Maroonhood *Pterostylis pedunculata*. Dominant herbs included Scrub Nettle and Shade Nettle which have high covers typical of Riparian Forest, largely in the canopy openings, but lower cover in more shaded areas. Scattered Mountain Clematis and was also recorded.

Of note is the south Otways Landcare Group EVC descriptions that state that Riparian Forest in the Otway Ranges has been recorded with a canopy dominated by Blackwood in the absence of Manna Gum. Brookers Gum may also be present (SOLN undated). This description fits the vegetation along the two waterways in the offset site so it is possible that the vegetation has affinities with Riparian Forest. However, based on the DEECA Victorian benchmarks used to assess the site, the best fit is Cool Temperate Rainforest.

Weeds

Two weed species were recorded in this EVC, they included a few scattered individuals of *Common Bitter-cress, and Montbretia **Crocasmia X crocosmiiflora*.



Image 11. Cool Temperate Rainforest in along Chapple Creek (North Branch), in the north eastern section of the offset site, 450 Morris Track, Lavers Hill (June 2024)



Image 12. Cool Temperate Rainforest along the western drainage line at the southern end of the offset site, 450 Morris Track, Lavers Hill (June 2024)



Image 13. Epiphytic ferns growing on fallen Blackwood in Cool Temperate Rainforest along the western drainage line at the southern end of the offset site, 450 Morris Track, Lavers Hill (June 2024)



Image 14. Epiphytic orchid, Maroonhood *Pterostylis pedunculata* and Butterfly Orchid growing on the branch of Blackwood *Acacia melanoxylon* which had subsequently fallen in Cool Temperate Rainforest along the western drainage line at the southern end of the offset site, 450 Morris Track, Lavers Hill (June 2024)



Image 15. Epiphytic orchid, Maroonhood *Pterostylis pedunculata* growing on the trunk of a Soft-tree Fern, *Dicksonia australis* in Cool Temperate Rainforest along the western drainage line in the southern end of the offset site, 450 Morris Track, Lavers Hill (June 2024)

6.4.3 Vegetation condition and quality (Habitat Hectare Assessment)

A HHa assessment was undertaken to calculate the Site Condition (the quality of native vegetation⁶ in the offset site measured against the EVC benchmark). The HHa assessment also includes the calculation of a Landscape Value (measure of habitat connectivity and level of disturbance as a measure of viability and functionality of a site). The Site Condition and Landscape Value scores are added together to provide a Habitat Score.

The Site Condition score components include:

- The number of Large Trees (number/ha and % cover);
- Tree Canopy % Cover and Health;
- Lack of Weeds (% cover including high threat weeds);
- Understory (number of species in each life form and % cover);
- Organic Litter (% cover of native/exotic origin);
- Logs (log length);
- Recruitment (% and diversity).

The closer the HHa score is to 1, the closer the vegetation is to a mature intact undisturbed pre-settlement state (DELWP 2018b). Habitat hectare assessment scores >0.6 are considered indicative of vegetation that has not been significantly disturbed and is in good condition (DELWP 2018b).

⁶ Native vegetation is defined as plants that are indigenous to Victoria including trees, shrubs, herbs and grasses in Victoria's planning schemes (DELWP 2017)

To meet the NVOR offset site mapping requirements the offset property was divided into discrete sites. Sites are discrete polygons of contiguous patches of native vegetation separated by natural or human boundaries (e.g. roads, rivers or land parcel boundaries), they are labeled numerically i.e. 1,2,3,4 etc. Each discrete site was then divided into zones which are areas of vegetation consisting of a single EVC and labeled alphabetically A, B, C etc. The labelling is combined to create unique site and zone identifiers e.g. Site 1A, 1B, 2A etc. (Figures 3 and 4). To avoid confusion with the different meanings of the word site (i.e. offset site or unique site identifier, the word zone will be used to refer to unique site and zones combined in this report).

Habitat hectare assessments were undertaken for each EVC to evaluate vegetation condition and GgC and YbG habitat suitability including vegetation species diversity, cover, structure, and recruitment (Figure 3, Appendix 3).

The habitat hectare assessments scores for all areas of the offset site indicate that the vegetation is in good condition with scores ranging from 0.78 (Wet Forest) to 0.84 (Cool Temperate Rainforest in the western gully) (Appendix 3). This suggests that there are no significant threats impacting vegetation condition on site at present.

6.4.4 Threatened species and vegetation communities

A review of the VBA records within 5 km of the offset site found no past records of threatened flora species and nine records of threatened fauna species listed under the EPBC Act, and 38 flora and fauna species listed under the FFG Act. This included three records for GgC last recorded in 2009 and one record for YbG recorded in 1996 (VBA 2024).

The PMST report identified 39 flora and fauna species listed under the EPBC Act that either 'may' occur, are considered 'likely' to occur or are 'known' to occur within a 5 km radius of the study area. These species included GgC ('known' to be present) and YbG (considered 'likely' to be present) (DCCEE 2024a).

The PMST report did not identify any nationally threatened communities within a 5 km radius of the offset site (DCCEE 2024a).

None of the EPBC listed species identified in the abovementioned searches, or additional EPBC listed threatened species were recorded onsite during the site survey.

Two FFG listed species were recorded within the offset site they included Satinwood *Nematolepis squamea* subsp. *squamea* listed as vulnerable, and Brooker's Gum *Eucalyptus brookeriana* listed as endangered under the FFG Act. There are 88 past records of Satinwood in the VBA within 5 km of the offset site and it was last recorded in 2023 (VBA 2024). There are no records of Brooker's Gum within 5 km of the offset site but it is known to occur in the Otway Ranges (VicFlora 2024).

There may be other threatened species in the offset site, as some plants are seasonal (e.g. orchids), and some fauna species are highly mobile or are seasonally restricted in their activity and may not have been detected at the time of the survey.

6.5 Habitat suitability for Gang-gang Cockatoo and Yellow-bellied Glider

Targeted surveys including bird surveys, and PAM and spotlight surveys were undertaken in March 2024 by GHD which confirmed the presence of GgC and YbG at the offset site (GHD 2024). The preliminary offset suitability assessment undertaken by GHD confirmed that there was suitable habitat for GgC and YbG on site and targeted survey monitoring confirmed their presence (GHD 2024).

The offset site assessment undertaken by Abzeco confirmed that the vegetation on site is consistent with the documented descriptions of suitable habitat for GgC and YbG including:

- Wet sclerophyll eucalypt forest and temperate rainforest habitat for GgC, although not fully mature, regeneration is well underway post timber harvesting along the spur and elsewhere.
- A diversity of canopy species for GgC and YbG foraging year-round and suitable smooth barked eucalypt trees with loose bark to provide sap feeding and insect foraging opportunities for YbG (as evidenced by YbG feed marks on some trees).
- Identified feed tree species for YbG including Messmate, Mountain Ash, Narrow-leaved Peppermint and Manna Gum (DAWE 2022) and typical YbG feed marks which consist of V shaped notches on Brooker's Gum.
- A diversity of understory trees and shrub species which would offer a variety of other food sources for GgC.
- Connectivity with surrounding GgC and YbG habitat in the Great Otway National Park and the Otway Forest Park allowing safe movement, adequate-sized home ranges and food and foraging resources for both species.
- An estimated 500 large eucalypt trees, mostly confined to Shrubby Wet Forest and Wet Forest EVCs with occasional emergent eucalypts in the Cool Temperate Rainforest. This included living and dead trees with hollows. The trees in the offset site are too tall to accurately assess the size of the hollows from the ground. The numerous records of GgC and YbG on site supports the likelihood of suitable GgC nesting and YbG denning hollows being present.
- Adequate numbers of large trees to provide for the formation of more hollow bearing trees into the future.
- Ready access to water from Chapple Creek (North Branch) and seasonally from ephemeral flows along the western drainage line.
- Sheltered gullies for GgC's to escape the heat in summer.

6.6 Consultation with Parks Victoria (PV) and the Department of Energy, Environment and Climate Action (DEECA)

Declared pest animals listed under the *Catchment and Land Protection Act 1994* including Red Fox *Vulpes vulpes*, European Rabbit *Oryctolagus cuniculus*, deer, cats and hares as are present in the Otways (DSE 2019). Fallow Deer *Dama dama*, Red Deer *Cervus elaphus*, and Cats *Felis catus* have been recorded within 5 km of the offset site (VBA 2024). Feral pigs and goats are also emerging threats in the Otways although goats do not seem to be a problem in the wetter areas like the offset site (DSE 2019, James Templeton, Conservation Ecology Centre, pers. comm.).

Pest animals move across tenure so a landscape approach is the most effective way control them. As the site is largely surrounded by Crown Land, the land managers, PV and DEECA were consulted about the effective control programs and methods they use to manage declared pest animals, and deer, cats, pigs and goats in the National Park and Otway Forest Park. The information provided by PV and DEECA was used to develop the management actions in this OMP as a collaborative and consistent landscape scale management generally produces better outcomes and more efficient use of resources to protect and conserve natural values such as GgC and YbG.

Deer control is undertaken by PV in the Great Otway National Park in priority areas but the offset site is not located near one of those priority areas (Carlie Bronk, PV, pers. comm.). There are no active pest animal management programs (such as fox baiting) being undertaken in the Otway Forest Park,

DEECA's work focus is on road and track management and fire operations (Craig Clifford, DEECA pers. comm.). There may be an opportunity for PV to extend their fox baiting under the Otway Ark program to include the area next to the offset site in the future, this would require an access agreement to be signed by Barwon Water (Katrina Lovett, PV, pers. comm.). Barwon Water will discuss this option with PV.

Both CFA and DEECA are jointly responsible for fighting fires in the surrounding landscape on private and public land under the Joint Fuel Management Program (JFMP) which is a statewide program to manage fuel on private and public land over the next three years (DEECA 2024d). The JFMP interactive forest fire management map indicates that the Otway Forest Park and Great Otway National Park areas west of the offset site were scheduled for planned fuel reduction burns in 2023-2024. No further planned burns are indicated in the future in this area (DEECA 2024d). The aim of DEECA and CFA would be to protect all assets (including the offset site) by controlling and extinguishing any fire as quickly as possible upon detection (Craig Clifford, DEECA pers. comm.).

Parks Victoria and DEECA were consulted to confirm if they used the spur track through the centre of the property (Andrew McKinnon, PV, pers. comm., Tim Miller, DEECA pers. comm.) to access the adjoining Otway Forest Park (e.g. for fire management purposes). Both organisations confirmed that they do not use the track. Barwon Water plan to use the track to provide access for management purposes, no public access will be permitted.

Barwon Water are planning to approach DEECA to discuss the option of transferring the property over to the Crown once it has been established as an offset site. If this eventuates, Barwon Water will consult with PV regarding closing the track in line with PV and DEECA requirements as PV indicated they would likely close and regenerate the track to reduce the risk of introduced species including deer, cats, rabbits, pigs and goats gaining access to more remote parts of the National Park and Otway Forest Park.

Barwon Water will maintain regular contact with PV and DEECA to stay informed about new and emerging threats and actions being undertaken to control of high threats within the adjoining crown land to maximise the effectiveness of threat control in the offset site. For example, if PV or DEECA are undertaking deer control adjacent to the offset site, then deer control can be undertaken within the offset site at the same time to prevent deer using the offset site as a safe haven which will assist with maximising the number of deer removed.

Parks Victoria advised that the offset site monitoring data and VBA data entry of flora and fauna records collected on the property would be welcomed as it would contribute to their knowledge of natural values and the type and level of threats in the area and inform management in their efforts to control those threats. It would also contribute to other data being collected to assess the effectiveness of management actions in the area. Barwon Water have agreed to supply this data to PV and ensure that ecological consultants engaged to undertake monitoring enter this information into the VBA.

6.7 Threats

6.7.1 Unauthorised access

There was evidence of trail bikes bypassing of the seasonally locked gate on Morris Track adjacent to the offset site. But there was no evidence of trail bikes entering the offset site. There was also no evidence of vehicles entering the offset site via the locked wooden gate at the base of the spur or from the ungated entrance at the top of the spur track.

Unauthorised vehicles or personnel can spread weeds and plant pathogens (e.g. *Phytophthora*) into the site on tyres, footwear and other equipment and may include rubbish dumping. Vehicles, foot traffic

and illegal firewood collection can also cause noise, damage vegetation cause soil disturbance and alter hydrology, stream flow and water quality (sedimentation and rubbish). Recreational activities, illegal firewood collection, illegal hunting or any other non management activities must be excluded from the site at all times to prevent degradation of GgC and YbG habitat.

If unauthorised access occurs from Morris Track or the spur track then options such as fake security cameras, installation of more secure gates and placement of rocks beside gates and installation of fencing may need to be implemented. High threat weeds

Weed cover is generally low, however two declared noxious high threat weeds are present on site and other high threat herbaceous environmental weeds were recorded during the site assessment. *'Invasion of native vegetation by 'environmental weeds''* is listed as a threatening process under the FFG Act (DEECA 2024e).

Weeds can impact GgC and YbG habitat by altering and simplifying vegetation species diversity and structure by competing with native species for light, water, and nutrients. This in turn can impact the recruitment and survival of native canopy species and understory vegetation.

6.7.1.1 Woody weeds

***Common Blackberry**

Invasion of native vegetation by Blackberry Rubus fruticosus L. agg. is listed as a threatening process under the FFG Act (DEECA 2024e) and it is classified as an Environmental Weed in Victoria and is considered highly invasive in a wide range of habitat types (White et al. 2018).

Young small plants of *Common Blackberry were scattered along the vehicle tracks in and around the offset site, with a few recorded within the offset site, close to the tracks. *Common Blackberry can form dense, impenetrable thickets often along waterways. These thickets provide shelter and food for pest such as foxes, rabbits and deer. They resprout after disturbance. Ongoing control of *Common Blackberry will be a priority at this site.

6.7.1.2 Herbaceous weeds

Eight herbaceous weeds that are classified as environmental weeds on the *Advisory list of environmental weeds in Victoria* (White et al. 2018) (a non statutory, dynamic list) were recorded in the offset site including:

- Spear Thistle **Cirsium vulgare* (CaLP listed weed)
- Sweet Vernal-grass **Anthoxanthum odoratum*
- Common Bitter-cress **Cardamine hirsuta*
- Montbretia **Crocasmia X crocosmiiflora*
- Cocksfoot **Dactylis glomerata*
- Yorkshire Fog **Holcus lanatus*
- Flatweed **Hypochaeris radicata*
- Self-heal **Prunella vulgaris*

These plants have been classified as environmental weeds because they are known to invade native vegetation communities and impact the health of native plants and fauna habitat. In addition, the NVOR documents classify any perennial herbaceous weed or weed listed on the relevant EVC benchmark as high threat weeds (DEECA 2018a). These species readily invade disturbed areas and were largely confined to the vehicle tracks in and around the offset site. Several species also readily

invade undisturbed native bushland so must be a focus of control along with the CaLP weed *Spear Thistle, they include:

- *Sweet Vernal-grass
- *Montbretia
- *Flatweed

A small clump of *Montbretia and occasional scattered *Common Bitter-cress plants were recorded along Chapple Creek (North Branch). The highest concentration of the other herbaceous weeds was recorded along the offset site boundary adjacent to Morris Track and to a lesser extent the spur track. This is likely due to weed seeds and propagules spread in the dirt dropping from vehicle tyres.

Scattered plants of an *Agrostis* were recorded along the tracks but the species could not be determined due to lack of fertile material. As it is located along the tracks it is likely to be an introduced annual and is not considered high threat but must still be controlled when its identification can be determined (after seeds cure in summer).

6.7.2 Pest animals and other high threat animals

The primary threats to the GgC and YbG is predation by foxes and cats and potential impacts to the quality of their habitat by herbivores.

Foxes (*Vulpes vulpes*)

The Commonwealth EPBC Act lists '*Predation by European red fox*' as a Key Threatening Process (DCCEEW 2024b) and '*Predation of native wildlife by the introduced Red Fox *Vulpes vulpes**' is a listed threatening process under the FFG Act (DEECA 2024e). Foxes are declared pest animals under the CaLP Act.

No fox dens were found during the site assessment, but there was evidence of foxes (scats) observed. During the targeted surveys undertaken by GHD in February 2024, foxes were recorded on four cameras within the offset site and an additional camera elsewhere on the property, there were also some incidental fox sightings (GHD 2024).

Parks Victoria are currently undertaking an ongoing fox baiting program in parts of the Great Otway National Park but not in areas close to the offset site.

Cats (*Felis catus*)

The Commonwealth EPBC Act lists the '*Predation by feral cats*' as a Key Threatening Process (DCCEEW 2024b) and has produced a series of threat abatement plans for ferals cats (in 1999 2008, 2015 and 2024). The most recent plan is titled '*Threat abatement plan for predation by feral cats 2024*' (DCCEEW 2024c). '*Predation by native wildlife by the cat, *Felis catus**' is listed as a threatening process under the Victorian FFG Act (DEECA 2024e).

A cat was observed on Mount McKenzie Track near the subject property during the site assessment. During the targeted surveys undertaken by GHD in February 2024 cats were recorded on two cameras within the offset site and four additional cameras in other parts of the property (GHD 2024).

Cats are difficult to control as they occur in low densities and have large home ranges and while there are some effective methods used interstate; they are not yet legal in Victoria. There is a cat curfew between the hours of sunset and sunrise (6 pm to 6 am) in the Colac Otway Shire. This means cats can be trapped on private property and taken to the local Council pound.

Deer

'Reduction in biodiversity of native vegetation by Sambar (*Rusa unicolor*)' is listed as a threatening process under the FFG Act (DEECA 2024e).

Fallow Deer *Dama dama* are the most common species in the area at the time of this report preparation. Sambar Deer and Red Deer *Cervus elaphus* are known to occur in the Otway Ranges and area increasing in numbers and expanding in range across the Great Otway National Park (Clare Miller pers. comm.).

A fallow deer was observed crossing Mount Mckenzie Track Deer near the offset site during the time of the assessment. Fallow deer scats and game trails were observed scattered around the offset site, particularly along and near the western drainage line to the west near Morris Track. Preferential deer browsing of Prickly Currant-bush was evident across the site (Image 16). Deer prints were also observed along Morris Track and the spur track. The camera trapping undertaken by GHD in February 2024 captured images of fallow deer near Chapple Creek (North Branch) outside the offset site, along the spur track within the offset site. There was also an incidental deer sighting south of the offset site (GHD 2024).

Deer cause extensive destruction of native vegetation condition by reducing understorey species diversity and cover as well as soil health through over browsing, over grazing, pugging, creation of game trails, dispersal of weed seeds in caught in their hooves, fur and in droppings. They cause tree trunk damage by antler rubbing, understorey vegetation thrashing and trampling in scrape areas and around preaching trees during the rut (breeding season). They also impact soil structure leading to erosion, and sedimentation of waterways. Sambar and Red deer wallow, and foul of waterways with urine, faeces during the rut.

Deer need regular access to water and they shelter in dense vegetation in and around gullies all of which occurs in the offset site.



Image 16. Over browsing by deer of Prickly Currant-bush *Coprosmia quadrifida* was evident across the southern half of the property, 450 Morris Track, Lavers Hill (June 2024).

Deer cause extensive destruction of native vegetation through browsing (deer leave small tags of bark on browsed branches as they tear vegetation off).

Rabbits (*Oryctolagus cuniculus*)

The Commonwealth EPBC Act lists ‘*Competition and land degradation by rabbits*’ as a Key Threatening Process (DCCEEW 2024b) and ‘*Reduction in biomass and biodiversity of native vegetation through grazing by the Rabbit *Oryctolagus cuniculus**’ are listed as a threatening process under the FFG Act (DEECA 2024e). Rabbits are declared established pest animals under the CaLP Act.

No evidence of rabbits or hares, (scats, warrens or scratchings) was observed within the offset site. It is important to check for evidence of a threat as they can cause soil disturbance through diggings and the creation of warrens leading to soil disturbance and erosion, they can graze native vegetation and prevent regeneration of seedlings. These impacts can affect canopy and understory regeneration and cause a decline in plant species diversity and cover.

6.7.3 Macropod overgrazing/overbrowsing

Excessive grazing and browsing by macropods can damage native vegetation by reducing vegetation cover, flora species diversity and recruitment which in turn simplifies vegetation structure. The

macropod carrying capacity of vegetation can be exceeded during drought (when food availability is decreased).

Macropods (wallabies) tracks were observed on the property. At present macropod overgrazing does not appear to be occurring on site but could occur in the future if macropod numbers in the area increase and/or drought occurs.

Signs of macropod overgrazing includes heavily grazed grasses (grazed to near ground level), excessive browsing of shrubs (browsed vegetation will have a clean cut without a tag which would indicate deer browsing), increasing number and size of hip holes (cleared areas at the base of trees used for bedding down), and repeated sightings of large numbers of macropods on site.

6.7.4 Inappropriate fire regime

The Commonwealth EPBC Act lists '*Fire regimes that cause declines in biodiversity*' as a key threatening process (DCCEEW 2024b) and '*high frequency fire resulting in disruption of life cycle processes in plants and animals and loss of vegetation structure and composition*' is listed as a threatening process under the FFG Act (DEECA 2024e).

The offset site is long unburnt. Based on records on NatureKit which dates back to 1970, the closest fire was a planned burn undertaken along Mount McKenzie Road in 2005 which did not impact the offset site (DEECA 2024b).

Climate change is predicted to cause increased temperatures and decreased rainfall leading to increased frequency and intensity of fires in some locations. The EVCs on site are not adapted to, or reliant on disturbance by fire for recruitment and regeneration and fire can kill fire sensitive dominant canopy species such as Blackwood (SAC 2012). Fire is a known threat that can cause the loss of Cool Temperate Rainforest (SAC 2012). Wet sclerophyll forests such as wet forest and shrubby wet forest can survive infrequent fire but if fire is too frequent it can lead to the loss of obligate seeders such as Mountain Ash (Cawson et al. 2018). These long lived trees need a fire interval that is long enough for them to reach maturity and replenish the soil seed bank (Cawson et al. 2018).

Fire can kill and destroy live (and dead) hollow bearing trees and if too frequent and or intense can reduce flora species diversity and cover over time. This would impact GgC and YbG habitat by reducing GgC nest sites and foraging resources and YbG and sap tree resources and foraging opportunities. There would also be less shelter increasing the risk of predation from foxes and cats.

6.7.5 Flooding and erosion

No evidence of flooding or erosion was observed along the two waterways and the gullies they were situated in during the field assessment. Flooding can dislodge and damage vegetation, dislodge soil and litter leading to erosion.

Erosion results in soil disturbance and impacts on native vegetation condition and quality. Erosion can cause plant death by exposing tree roots, and the accumulation of soil and debris around tree trunks causing trunk rot and smothering small plants and seedlings. This can lead to canopy tree death and reduce species diversity and vegetation cover causing a decline in vegetation condition and GgC and YbG habitat.

The waterways are situated in deep gullies so flooding would likely be constrained to narrow areas. There are numerous fallen trees across and around the waterways and a high cover of vegetation on the banks and surrounding areas which would help protect waterways from channel change and impacts during flood events (DELWP 2018c). Logs and streamside vegetation stabilizes waterway banks, slows water velocity and protects streamside vegetation, protecting against stream bed degradation including channel incision, channel enlargement and erosion (DELWP 2018c).

Climate change is predicted to include increased extreme weather events including storms and flooding resulting in increased risk of soil erosion which can lead to loss of habitat trees and understory species on or close to waterways. This may in turn reduce shelter for GgC and YbG during fire or drought.

6.7.6 Cinnamon Fungus *Phytophthora cinnamomi*

The Commonwealth EPBC Act lists the 'Dieback caused by the root rot fungus *Phytophthora cinnamomi*' as a key threatening process (DCCEEW 2024b).

Cinnamon Fungus *Phytophthora cinnamomi* is a water borne mould that infects the roots of susceptible plants reducing the uptake of water and nutrients eventually leading to plant death commonly referred to as dieback. Cinnamon Fungus spreads via the movement of infected soil, water and infected plant material on footwear e.g. hikers and workers, on off road vehicles e.g. trail bikes and 4WDs used for recreation, and vehicles and equipment used for work e.g. timber harvesting, road works, and site maintenance (TTNP 2023).

There are a number of *Phytophthora* species but Cinnamon Fungus is the most commonly occurring species in the Otways and is now widespread and cannot be eliminated from the landscape (Wilson et al. 2000, Cahill et al. 2008, CoA 2014, Wilson et al. 2020) and there is no cure for the disease.

The offset site provides suitable conditions for Cinnamon Fungus including climatic temperatures between 15-30°C, and rainfall > 400 mm a year.

There was no evidence of Cinnamon Fungus with no signs of dieback observed in sensitive plant species recorded on site e.g. Messmate Stringybark and Blackwood which are abundant, see Appendix 2 for a list of species recorded on site that are known to be sensitive to Cinnamon Fungus.

If Cinnamon Fungus did impact the site in the future, it could degrade GgC and YbG habitat through the loss of dominant canopy species recorded in each of the EVCs (Messmate Stringybark and Blackwood) and some understory species. This would include the loss of live hollow bearing trees for nesting and denning and foraging resources for GgC and YbG.

Without adequate canopy cover to provide shade, the understory vegetation may also decline and entire EVCs may be lost due to sun exposure, heat and drying conditions that these species are not adapted to. This is particularly the case for the fern rich Cool Temperate Rainforest which has a Blackwood canopy. The two remaining EVCs would also be impacted as they have Messmate Stringybark among the dominant canopy species and Blackwood in the understory. This loss of species diversity and cover would likely lead to a loss of foraging resources, shelter from predators and shelter from extreme weather conditions and heat for GgC and YbG. This disturbance may also create opportunities (more space, light and heat) for weed invasions. Loss of vegetation cover would also increase the risk of erosion and associated declining water quality in the waterways on site and in turn further impacting vegetation condition.

6.7.7 Climate change

'Loss of terrestrial climatic habitat caused by anthropogenic emissions of greenhouse gases' is listed as a threatening process under the FFG Act (DEECA 2024e).

The impacts of climate change on GgC and YbG are not well known but are likely to negatively impact both species, particularly GgC's which are adapted to cooler climatic conditions. Warmer temperatures and altered rainfall are also likely to increase the chances and frequency of drought which in turn may increase the frequency and intensity of bushfires (CSIRO 2024) leading to loss of canopy trees and understory vegetation diversity and cover. These conditions may also result in drying waterways reducing access to water, declining canopy and understory vegetation diversity and cover, and associated reduction in available shelter from fire and predators (CSIRO 2024).

7. Legislation and policy

7.1 *Flora and Fauna Guarantee Act 1988*

The FFG Act is the primary State legislation for the protection of native plants, animals and ecological communities on public land and water in Victoria. Species, ecological communities and threatening processes can be listed as threatened or protected under the Act based on determination by an independent Scientific Advisory Committee. Listing is intended to protect species or communities from further threats to their survival in Victoria.

The *Flora and Fauna Guarantee Amendment Act 2019* came into effect on 1 June 2020, updating the FFG Act. Updates included a consolidation of flora and fauna listings using the Common Assessment Method (CAM) and new guidelines regarding Critical Habitat determinations. There are no Critical Habitat determinations at present. The amended FFG Act requires Ministers and public authorities to consider the FFG Act when performing functions that might impact biodiversity.

It is an offence to take, trade in, keep, move or process protected flora without a permit, or unless authorised by Order of the Governor in Council published in the Government Gazette (GIC Order) unless certain conditions apply. The FFG Act defines 'take' as 'kill', 'disturb' or 'collect'.

Protected flora are:

- Plants that are declared to be protected under section 46 of the Act.
- Plants that are listed as threatened under section 10 of the Act.
- Plants that belong to communities that are listed as threatened under section 10 of the FFG Act.

Implications

The FFG Act protects biodiversity values on public land and as no protected flora is being impacted by the establishment of the offset site so there are no implications under the FFG Act.

7.2 *Catchment and Land Protection Act 1994*

Under the CaLP Act species of plants and animals are declared as noxious weeds and pest animals in Victoria (AV 2024d). The purpose of the Act is to protect primary production, Crown land, the environment and community health from the effects of noxious weeds and pest animals. Under the Act, all Landowners have legal obligations regarding the management of declared noxious weeds and pest animals on their land.

There are four categories of noxious weeds under the CaLP Act: State Prohibited, Regionally Prohibited, Regionally Controlled and Restricted Weeds.

- State Prohibited weeds—these weeds are either not in Victoria or are in such small numbers that eradication is still possible. The Victorian Government is responsible for their eradication and may direct landowners to prevent their growth and spread. It is an offence to buy, sell or transport State Prohibited Weeds in Victoria.
- Regionally Prohibited weeds—Landowners must take all reasonable steps to eradicate Regionally Prohibited weeds on their land.
- Regionally Controlled weeds—these weeds are usually widespread, but it is important to prevent further spread. It is the responsibility of the landowner to prevent the growth and spread of Regionally Controlled weeds on their land.
- Restricted weeds—these weeds pose an unacceptable risk of spreading in this State and are a serious threat to other States or Territories. Trade in these weeds, seeds or material with their contaminants is prohibited.

Under the CaLP Act, landowners have a legal duty to prevent the spread of, and as far as possible eradicate, established pest animals. There are four categories of pest animals: Prohibited, Controlled, Regulated (collectively referred to as Restricted pest animals) and Established pest animals.

- Restricted pest animals are not established in the wild in Victoria but have the potential to become a serious threat to primary production, Crown land, the environment or community Health in Victoria and cannot be kept without a permit.
- Established pest animals pose the same threat but are established in the wild in Victoria. Landowners have a responsibility to prevent their spread and where possible eradicate established pest animals.

Implications

Two CaLP Act listed weeds, *Common Blackberry (Regionally Controlled) and *Spear Thistle (Restricted) were recorded in the offset site. Landowners have a legal responsibility under the Act to undertake ongoing control measures to prevent the growth and spread of *Common Blackberry on their land.

Evidence of foxes was recorded on and near the property. Landholders have a responsibility to regularly monitor and control these pest species in perpetuity.

7.3 Planning and Environment Act 1987

In Victoria, a permit is required to remove, destroy or lop native vegetation. Regulation of planning proposals with potential impacts to native vegetation is governed by Clause 12.01 (Biodiversity) and Clause 52.17 (Native Vegetation) under all Victorian planning schemes.

Clause 52.17 references the requirements of the Victorian *Guidelines for the removal, destruction, or lopping of native vegetation* (the Guidelines, DELWP 2017), which is an incorporated document under Clause 72.04 of all planning schemes (DTP 2024).

The Guidelines seek to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation (DELWP 2017).

The relevant responsible authorities are required to assess permit applications for the removal, destruction or lopping of native vegetation in accordance with the Guidelines. The responsible authority is the relevant Council. Under Clause 66 (Referral and Notice Provisions) of planning

schemes, the application may also need to be referred to DEECA for consideration under certain conditions outlined in the Guidelines.

Implications

A planning permit is required to remove, destroy or lop native vegetation under Clause 52.17 of the Colac Otway planning scheme unless an exemption applies.

A 'Conservation Works' exemption would be required prior to the following management actions for any disturbance/loss of native vegetation:

- Construction of any fences/gates or placement of boulders across track entrances that will disturb native vegetation.

A conservation work exemption enables native vegetation to be removed without a permit to provide an overall improvement for biodiversity and with written agreement of the Secretary to the DEECA (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*).

The conservation works exemption application can be included if required in the Section 69 Landowner Agreement package submitted to the NVOR for QA for consideration and sign off by the secretary.

7.4 Colac Otway planning scheme

The property is zoned Farming Zone (FZ) and is covered by a Bushfire Management Overlay (BMO), Erosion Management Overlay Schedule 1 (EMO1) and Environmental Significance Overlay Schedule 3 (ESO3).

7.4.1 Zoning

Farming Zone (FZ)

Prohibited uses

- Accommodation (other than Bed and breakfast, Camping and caravan park, Dwelling, Group accommodation, Host farm, Residential hotel, Rural worker accommodation and Small second dwelling)
- Amusement parlour
- Cinema based entertainment facility
- Education centre (other than Primary school and Secondary school)
- Nightclub
- Office
- Retail premises (other than Market, Landscape gardening supplies, Manufacturing sales, Primary produce sales, Restaurant and Trade supplies)
- Small second dwelling – if the Section 1 condition is not met

Implications

No implications have been identified under the FZ.

7.4.2 Overlays

Bushfire Management Overlay (BMO)

Purpose

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

Under the BMO, bushfire protection measures are required when applying for a permit to construct a building or construct or carry out works. For example, an application must be accompanied by a bushfire hazard site assessment, a bushfire hazard landscape assessment, and a bushfire management statement.

Implications

The establishment of the offset site precludes the construction of any buildings or construction works, therefore there are no implications under the BMO associated with the establishment of the offset site.

Erosion Management Overlay Schedule 1 (ESO1)

Purpose

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To protect areas prone to erosion, landslip, other land degradation or coastal processes by minimising land disturbance and inappropriate development.

Schedule 1 - Erosion management objectives to be achieved

To ensure that development can be undertaken at a tolerable risk to human life and property from landslip.

Schedule 1 - Statement of risk

Areas subject to landslip are within the Otway Ranges, coastal areas along the Great Ocean Road and farming areas in the Forrest and Gellibrand localities.

The occurrence of landslips within Colac Otway Shire has historically caused damage to property and the environment and presents an ongoing risk to human life. Geotechnical studies have documented historical landslip occurrences and seek to identify areas susceptible to future landslide occurrence.

The control of environmental factors and development relating to vegetation cover, drainage, rock and soil disturbance and effluent and stormwater disposal are all important in managing the risk of landslip.

Risk from landslip needs to achieve Tolerable Risk.

Tolerable Risk is a risk within a range that society can live with so as to secure certain net benefits. It is a range of risk regarded as non-negligible and needing to be kept under review and reduced further if possible. The maximum tolerable risk is defined as:

- For loss of life for the person(s) most at risk, is taken as having a probability of no greater than 10^{-5} (1:100,000) per annum calculated in accordance with the *Australian Geomechanics Society Practice Note Guidelines for Landslide Risk Management 2007*.
- For property, loss is assessed qualitatively using the *Australian Geomechanics Society Practice Note Guidelines for Landslide Risk Management 2007* and specifically Appendix C to that document and is selected depending on the new development type in accordance with the Table below.

Maximum tolerable risk to property

New Development Type	Maximum Qualitative Tolerable Risk
Essential facilities, including hospitals, medical and surgery facilities, emergency services facilities, designated emergency shelters and facilities, buildings and facilities containing toxic or explosive materials in sufficient quantity capable of causing hazardous conditions that extend beyond property boundaries.	Low
All other new development, including residential dwellings.	Moderate

A permit is not required to:

- Construct or carry out works associated with:
 - A pond or open, impervious water holding structure with a capacity of less than 10,000 litres.
 - A masonry wall if the height of the wall does not exceed one metre.
 - A spa and associated mechanical and safety equipment if the spa has a capacity not exceeding 5,000 litres and is constructed at or above ground level.
- Construct or carry out earthworks that result in a modified ground surface that is less than one metre above or below the natural ground level.
- Extend a building or carry out works, provided:
 - The gross ground floor area is not increased by more than 20 square metres.
 - Stormwater from the building is drained to a legal point of discharge.
 - The slope of the land within 20 metres of the building is 9 degrees (15%) or less.
- Construct a non-habitable structure ancillary to a dwelling, including carports and garden sheds, provided:
 - The structure is constructed of lightweight, flexible materials (not bricks, concrete blocks or similar).
 - The ground surface area occupied by all such structures on the property does not exceed 40 square metres.
 - The slope of the land within 20 metres of the structure is 9 degrees (15%) or less.
 - Stormwater from the roof is drained to the legal point of discharge.

- Construct or extend a building used for agricultural purposes in the Farming Zone.
- Construct or carry out works undertaken by or on behalf of a public authority relating to watercourse management, environmental improvements or infrastructure services.
- Remove, destroy or lop vegetation if any of the following apply:
 - The trunk circumference measured at 1 metre above ground level does not exceed 2 metres and the natural ground surface is reinstated.
 - The vegetation is dead, and the natural ground surface is reinstated.
 - The roots below the ground level are retained, and the vegetation removal is associated with the maintenance of an existing minor utility installation.
 - The vegetation is to be removed, destroyed or lopped in conjunction with timber production, and:
 - Complies with the *Timber harvesting Prescriptions for Environmental Protection – Otway Region Private Land Native Forests and Plantations*; and
 - Details of landslip risk is provided to and approved by the responsible authority.
 - The lopping is for pruning to improve a tree's health or structural stability.

Implications

The are not likely to be any implications under ESO1 as proposed works such as the installation of gates at one or both ends of the spur track would not require a permit as the work would be 'undertaken by or on behalf of a public authority for environmental improvements'.

Environmental Significance Overlay Schedule 3 (ESO3)

Purpose

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values

Schedule 3 – Declared Water Supply Catchments

Statement of environmental significance

The Colac Otway Shire contains several declared water supply catchments, which provide water to urban and rural development throughout the region. The environmental health of water catchments is integral to conserving the quality and quantity of water supplies on a sustainable basis as well as to protecting the public health of the whole community. The careful management of land use and development will contribute to the protection of the catchments to enable ongoing provision of a reliable, high quality water supply. Protection of the quality and quantity of water has significant local and regional benefits.

Environmental objectives to be achieved

- To protect the public health of communities that depend on water from declared water supply catchments.
- To protect and maintain water quality and water yields in the declared water supply catchments.
- To ensure that subdivision, land use and development meets the requirements of any Land Use Determination.

- To provide for appropriate land use and development within these declared water supply catchments.
- To manage the impact of incremental development on water quality and yield.

A permit is not required for the following:

- To remove, destroy or lop any non-native vegetation.
- To remove, destroy or lop any dead vegetation.
- To prune any native vegetation provided it does not exceed 20 per cent of the bio-mass of the vegetation.
- Buildings and works associated with informal outdoor recreation, except involving any new effluent disposal system.
- Outbuildings less than 300 square metres in floor area.
- Alterations and addition to a dwelling of less than 130 square metres in additional floor area, except involving any new effluent disposal system.
- Works undertaken by a public authority relating to watercourse management, environmental improvements or infrastructure services.

Implications

There are not likely to be any implications under ESO3 as proposed works such as the installation of gates at one or both ends of the spur track would not require a permit as they would be undertaken by 'a public authority for environmental improvements'.

8. Management commitments

The OMP management commitments are provided in a similar format and wording to that required for the Section 69 Agreement. This format has been adopted to provide some consistency between the OMP documentation submitted to DCCEE and NVOR, to improve clarity for the landowner.

8.1 Plan objectives

All high threats to native vegetation condition, GgC and YbG habitat including weeds, pest animals, soil disturbance and erosion, natural water flow, vegetation condition, retention of large hollow bearing and foraging trees, and the recruitment cycle must be controlled.

High threats requiring control at this site include:

- Declared noxious and environmental weeds;
- Declared pest animals and high threat feral animals;
- Risk of inappropriate fire regime;
- Risk of *Phytophthora*;
- Risk of flooding; and
- Other threats as identified or that may appear during the 10-year active management period.

8.2 Management priorities

Most of the threats identified on site pose a high risk to GgC and YbG and are spread throughout the site so no one threat takes priority over another. All threats need to be managed across the entire site.

8.3 10-year management commitments

The aim of this OMP is to conserve habitat for Ggc and Ybg. To achieve this, Barwon Water has been consulted, has confirmed they have the capacity, and has agreed to undertake the following management commitments to improve the quality and condition of native vegetation within the offset site for a period of 10 years from the commencement of the Landowner Agreement, once approved by DCCEEW (Table 2):

Table 2: 10 Year management commitments

10 year management commitments	
Zones	Commitment
All	<ul style="list-style-type: none"> register On Title Landowner Security Agreement (Section 69 Agreement) immediately on approval of this OMP by DCCEEW monitor quarterly (i.e. once per season), and report annually to DCCEEW and DEECA NVOR, to the Department's standards, on management obligations, commitments actions and results, including identification of any new threats that may arise.

The landowner must maintain, in perpetuity, the condition of native vegetation and habitat for GgC and YbG achieved at the end of the 10-year management period, as outlined above.

8.4 Ongoing management commitments

From the commencement of the Landowner Agreement, Barwon Water has agreed to undertake the following management commitments to maintain the quality and condition of native vegetation and habitat for GgC and YbG at the site in perpetuity (Table 3):

Table 3: Ongoing management commitments

Ongoing management commitments	
Zone(s)	Commitment
All	<p>From the commencement of the Landowner Agreement the landowner must, for all vegetation types:</p> <ul style="list-style-type: none"> control ALL high threats (e.g. grazing threats from introduced animals or overgrazing by native herbivores, inappropriate fire or flooding regime, other threats as identified) eliminate all woody weeds < 1 % cover with no mature plants present ensure that weed cover does not increase beyond the current level (% cover measured by Site Assessor when establishing the offset site) monitor for any new and emerging high threat weeds and eliminate to < 1% cover control foxes, deer, cats, spread of <i>Phytophthora</i> and (if identified on site) rabbits protect the site from being readily accessible by persons (i.e. exclude persons, other than those required for management or monitoring) monitor threats throughout the year (at least once per quarter)⁷ report, as reasonably requested, to DCCEEW and DEECA NVOR on management obligations, actions and results retain all standing trees (dead or alive) retain all logs, fallen timber and leaf litter exclude stock

⁷ Monitoring will include quarterly site visits, annual camera trapping for threats, biennial habitat assessments and GgC and YbG targeted surveys.

8.5 Fencing

Threats, including stock and people (other than management/monitoring personnel), must be excluded from the site at all times. The intention of fencing is to protect the site from threats. The location of fencing is not important as long as the site is protected from all threats in perpetuity.

No threats to the offset site currently exist that requires fencing and there are currently no fences around the boundary of the offset site. There is a locked, wooden gate beyond the northern boundary of the offset site on the spur track, the southern end of this track is ungated. On the western side of the offset site, there is a seasonally locked steel gate along Morris Track at the northern end of the offset site preventing access to Morris Track from Mount Mckenzie Track.

If unauthorised access occurs from Morris Track, fencing will be installed along the western boundary (c. 690 m). The fence will be built to the standards detailed in the DEECA NVOR *Management standards for native vegetation offset sites*, Fencing management standards (DEECA 2025) (note under these standards, no strands may be barbed, and the bottom strand must not be electrified). Fencing will be completed within three months of detecting unauthorised access not controlled by other methods.

All contractors must undertake and provide written confirmation of inductions that include hygiene protocols that requires all machinery and equipment used for any works onsite to be cleaned off site prior to and after work activities to manage the spread of weed seeds and propagules.

All fencing and gates must be maintained in good working condition and any damage/breaches will be repaired within three months of detection.

Threats including stock access, unpermitted vehicle access, access by unpermitted persons on foot, and firewood collection must be excluded from the site in perpetuity.

If actions associated with management access including installation of fencing or gates will impact native vegetation and if a fencing exemption does not apply, a Conservation Works exemption will be required under Clause 52.17 of the Colac Otways planning scheme.

Where redundant fencing exists on site it is likely to pose a threat to native animals, especially if it is barbed. Wire from redundant fencing must be removed and disposed of at an appropriate facility.

Quarterly site visits and biennial habitat assessments will be undertaken across the site to assess if there has been any impact on GgC and YbG habitat from unauthorised access.

Fencing management methods are outlined in Table 4.

8.5.1 Performance indicators

No unauthorised access by vehicles or persons is occurring.

If required, signage and/or fake security cameras, gates or fencing have been installed and are all maintained in good working order.

No stock access or illegal firewood collection occurring.

No impacts on GgC and YbG habitat.

Documentation of all works maintained.

8.5.2 Adaptive management

If fencing is found to be ineffective and not protecting the site from threats, then undertake repairs, upgrades or employ additional methods within three months of detection (Table 4).

Table 4: Fencing and access – methods and timing

Location	Methods	Timing
Site 1A - Morris Track – c. 690 m	No threats to Site 1A adjacent to Morris Track requiring fencing currently exist. If unpermitted access occurs, that is not controlled by other methods (see Section 8.8), erect a fence along the western perimeter of the Site according to DEECA NVOR <i>Management standards for native vegetation offset sites, August 2025</i> – Fencing management standards.	Within 3 months of detecting threat
Along the length of offset site boundary on Morris Track Either end of the central spur track	Undertake routine checks to monitor for evidence of unauthorised access	Each season – spring, summer, winter, autumn. Ongoing
Entire offset site where fencing/gate/signs are installed	Monitor quarterly and maintain all fencing, gates and signage in good working condition and repair any breaches	Monitor for breaches each season - spring, summer, winter, autumn. Ongoing Repair any breaches/damaged or missing signs within 3 months of detection

8.6 Weed control

Weeds can have a significant impact on native vegetation. Weed control is required to prevent weeds impacting GgC and YbG habitat on site. All woody weeds on site must be eliminated.

Eliminate means to reduce weed cover to less than one per cent with no mature individuals present. This means that by the time stated in the management plan the presence of the weed or weeds is negligible. The presence of occasional scattered seedlings (which must be removed ongoing) still constitutes negligible cover (DEECA 2025).

Landowners must meet their obligations under the CaLP Act with respect to eradicating regionally prohibited weeds and preventing the growth and spread of regionally controlled weeds (i.e. it is part of the landowner’s legal responsibilities [duty of care]). In the context of managing native vegetation, weeds are not restricted to those listed under the CaLP Act.

Quarterly site visits (spring, summer, winter autumn) will be undertaken by Barwon Water to monitor weeds.

Biennial habitat assessments will be undertaken across the site to assess the impact of weeds on GgC and YbG habitat (See Section 11 for details).

All contractors to undertake and provide written confirmation of inductions that include hygiene protocols that requires all machinery and equipment used for any works onsite to be cleaned off site prior to and after work activities to manage the spread of weed seeds and propagules.

Contractors must provide written information about herbicide used, application rates and application methods for each site visit.

8.6.1 Woody weeds

Eliminate all woody weeds listed in Table 5 by the end of the first year of management using the methods outlined in Table 5. Indigenous plants must not be impacted during treatment.

Treat weeds before seed set to reduce seed production. If seeds are present on plants, then remove from site and dispose of responsibly (e.g. double bagged in landfill).

Refer to the DEECA NVOR *Management standards for native vegetation offset sites, Weed management standards, (DEECA 2025)*.

Do not treat plants with herbicide during dormant periods or when stressed i.e., waterlogged or drought stressed as treatments will not be readily distributed around the plant and will be far less effective.

Herbicide must not be applied during windy or wet conditions to avoid impacting indigenous native species. Off target damage to native species must be avoided.

Monitoring and weed control must be undertaken if disturbance such as fire or flood does impact the site to control germination of weeds in Table 5 and new and emerging weeds.

Any woody weeds listed under the CaLP Act must be eliminated from the offset site by the end of year 10 of the OMP (see Appendix 2).

All machinery and equipment used for any works onsite must be cleaned off site prior to and after work activities to manage the spread of weed seeds and propagules.

Under Victorian legislation, legal use of some chemicals requires the user to possess an Agricultural Chemical User Permit (ACUP). Other chemicals have restrictions on their use in Chemical Control Areas (CCAs). A suitably qualified contractor with an ACUP permit must undertake the works where such chemicals are required.

Herbicides used to control weeds along and near the western drainage line and Chapple Creek (North Branch) needs be suitable for use near waterways.

New and emerging woody weeds

All new and emerging woody weeds must be eliminated. Monitor throughout the site at least quarterly for the 10 years of active management and then on an ongoing basis and eliminate any identified plants.

Refer to the DEECA NVOR *Management standards for native vegetation offset sites*, Weed management standards (DEECA 2025).

8.6.1.1 Performance indicators

Woody weeds eliminated from the site by the end of year 1.

All noxious weeds listed under the CaLP Act eradicated by year 10.

No mature plants within the site by the end of year 1.

No off-target damage to native plants including terrestrial, amphibious and aquatic plants.

No evidence of spread of existing high threat or other herbaceous weeds in locations accessed by contractors.

No new or high threat woody weeds present on site.

Documentation maintained of all monitoring activities and results, and control activities.

8.6.1.2 Adaptive management

Review and implement the annual monitoring report recommendations.

If weed cover is not decreasing or is increasing above covers shown in Table 6, then assess which species are not responding and review timing and methods to ensure they are suitable for the target species within three months of detecting ineffective control.

Trial alternative methods and increase the frequency of weed control as necessary to achieve weed cover targets.

If woody weeds are detected in new locations where contractors have been working then reinforce induction training regarding cleaning all vehicles and equipment and undertake annual spot audits to ensure hygiene protocols are being followed commencing immediately.

Table 5: Woody weeds to be controlled – methods and timing (source: Muyt 2001)

Common name	Scientific name	Location	Methods	Timing	Notes
Common Blackberry (CaLP weed)	* <i>Rubus anglocandicans</i>	Mainly along Morris track with occasional plants scattered elsewhere	<p>Seedlings: hand pull ensuring the entire root system is removed.</p> <p>Large plants: cut and paint, spot spray or wick wipe foliage of larger plants with a suitable herbicide.</p> <p>If larger infestations are found, cut and paint larger plants and slash thickets to provide better access for herbicide application.</p> <p>When treating plants near any waterways/drainage lines, use an appropriate herbicide for Blackberries that is also suitable for use near waterways as per instructions on the label.</p>	Annually in late spring or early summer before fruit set.	<p>Plants readily resprout from underground root systems and above ground parts and will require follow up treatments to effectively eliminate plants to <1% cover.</p> <p>Treat during the active growing season to achieve maximum chemical absorption and transport through the plant.</p> <p>Treat before berries form to prevent seed spread.</p> <p>Ensure any material with fruit is removed offsite and disposed of responsibly away from native vegetation at a dedicated green waste disposal facility.</p> <p>Follow up treatment will be required for many years to treat root suckers and seedlings particularly post disturbance such as fire.</p>

Table 6: Total cover of woody weeds on site at inception

Location	Total cover of all woody weeds (%)
1A, 2B, 2C	<1%

8.6.2 Herbaceous broadleaf and grassy weeds

Elimination of all high threat and other herbaceous and grassy weeds < 1% cover:

Eliminate (to <1% cover) all herbaceous weeds listed in Table 7 by the end of the first year of management using the methods outlined in Table 7. Indigenous plants must not be impacted during treatment.

Ensure that weed cover does not increase beyond current levels. Weeds listed in Tables 7 and 8 were found on site. To ensure that weed cover does not increase, weeds must be controlled using the methods outlined in Tables 7 and 8, prioritising efforts on high threat weeds and any weeds increasing in cover. Weed control must be undertaken at least annually for the first ten years, and as required thereafter to maintain or reduce weed cover.

Refer to the DEECA NVOR *Management standards for native vegetation offset sites*, Weed management standards (DEECA 2025).

Do not treat plants with herbicide during dormant periods or when stressed i.e., waterlogged or drought stressed as treatments will not be readily distributed around the plant and will be far less effective.

Herbicide must not be applied during windy or wet conditions to avoid impacting indigenous native species. Off target damage to native species must be avoided.

Monitoring and weed control must be undertaken if disturbance such as fire or flood does impact the site to control germination of weeds in Tables 7 and 8 and new and emerging weeds.

Any herbaceous weeds listed under the CaLP Act must be eliminated (<1% cover) from the offset site by the end of year 10 of the OMP (see Appendix 2).

Under Victorian legislation, legal use of some chemicals requires the user to possess an Agricultural Chemical User Permit (ACUP). Other chemicals have restrictions on their use in Chemical Control Areas (CCAs). A suitably qualified contractor with an ACUP permit must undertake the works where such chemicals are required.

Herbicides used to control weeds along and near the western drainage line and Chapple Creek (North Branch) needs be suitable for use near waterways.

New and emerging high threat herbaceous and grassy weeds

Monitoring for new and emerging high threat herbaceous and grassy weeds is to be conducted at least quarterly for the 10 years of active management and then ongoing, and any new and emerging weeds eliminated (<1% cover).

Refer to the DEECA NVOR *Management standards for native vegetation offset sites*, Weed management standards (DEECA 2025).

8.6.2.1 Performance indicators

The cover of herbaceous or grassy weeds does not increase beyond current levels across the site by year 10 (<1% cover).

No off-target damage to native plants.

No impacts on GgC and YbG habitat.

No evidence of spread of existing high threat or other herbaceous weeds in locations accessed by contractors.

No new or high threat or other herbaceous or grassy weeds on site.

Documentation maintained of all monitoring activities and results, and control activities.

8.6.2.2 Adaptive management

Review and implement annual monitoring report recommendations.

If weed cover is not decreasing or is increasing beyond covers in Table 9 then review timing and methods to ensure they are suitable for the target species within three months of detecting ineffective control.

Trial alternative methods and increase the frequency of weed control as necessary to achieve weed cover targets.

If herbaceous or other weeds are detected in new locations where contractors have been working then reinforce induction training regarding cleaning all vehicles and equipment and undertake annual spot audits to ensure hygiene protocols are being followed commencing immediately.

Table 7: High threat herbaceous and grassy weeds to be controlled – methods and timing (source: Muyt 2001)

Common name	Scientific name	Location	Methods	Timing
Sweet Vernal-grass	<i>*Anthoxanthum odoratum</i>	Zone 1A, 2B, 2C – occasional plants near Morris Track and in the Wet Forest	Spot spray or wick wipe with an appropriate herbicide. Herbicide must be applied as per instructions on the label.	Spring before seed set
Spear Thistle (CaLP weed)	<i>*Cirsium vulgare</i>	Zone 1A, 2B, 2C – occasional plants near Morris Track and in the Wet Forest	Hand pull, spot-spray/wick wipe with an appropriate herbicide. Herbicide must be applied as per instructions on the label.	Spring or early summer before seed set

Common name	Scientific name	Location	Methods	Timing
			This species flowers and sets seed in a short space of time so frequent treatment will be required.	
Montbretia	<i>*Crocsmia X crocosmiiflora</i>	Zone 2A a couple of plants in one location on Chapple Creek (North Branch)	Hand pull small infestations near waterways ensuring all corms are removed, if larger infestations are found they can be wick-wiped or sprayed with an appropriate herbicide suitable for use near waterways/wetlands Dispose of all material offsite away from native vegetation at a suitable green waste disposal facility. Herbicide must be applied as per instructions on the label.	Spring before new corms develop and flower stalks elongate
Cocksfoot	<i>*Dactylis glomerata</i>	Zone 1A, 2B, 2C – occasional plants near Morris Track and in the Wet Forest	Spot spray or wick wipe with an appropriate herbicide. Herbicide must be applied as per instructions on the label.	Late spring or early summer before seed set
Yorkshire Fog	<i>*Holcus lanatus</i>	Zone 1A, 2B, 2C – occasional plants near Morris Track and in the Wet Forest		
Flatweed	<i>*Hypochaeris radicata</i>	Zone 1A, 2B, 2C – occasional plants near Morris Track and in the Wet Forest	Individual plants can be hand removed using a weed fork to ensure main root is removed or spot spray/wick wipe with appropriate herbicide. This species flowers and sets seed in a short space of time so frequent treatment will be required. Herbicide must be applied as per instructions on the label. Dispose of all material offsite away from native vegetation at a suitable green waste disposal facility.	Spring or early summer to reduce seed production (can flower and set seed quickly and repeatedly)
Self-heal	<i>*Prunella vulgaris</i>	Zone 1A, 1C, 2B, 2C, 2D – occasional plants near Morris Track, and near the central spur Track in Shrubby Wet Forest and in Wet Forest	Individual plants can be hand pulled ensuring main root is removed or spot spray/wick wipe with appropriate herbicide. Herbicide must be applied as per instructions on the label. Dispose of all material offsite away from native vegetation at a suitable green waste disposal facility.	Any time from late spring to early autumn (flowers from November to April)

Table 8. Other herbaceous and grassy weeds to be controlled – methods and timing (source: Muyt 2001)

Common name	Scientific name	Location	Methods	Timing
To be determined	* <i>Agrostis</i> sp.	Zone 1A, 1C, 2B, 2C, 2D – occasional plants near Morris Track, and near the central spur Track in Shrubby Wet Forest and in Wet Forest	Spot-spray/wick wipe with an appropriate selective herbicide. Herbicide must be applied as per instructions on the label. Ongoing follow up will be required to treat germinating seeds	Confirm it is exotic and treat in spring or summer before seed set
Common Bitter-cress	* <i>Cardamine hirsuta</i> s.s.	Zone 1C, 2A and 2D - near the spur track and occasional plants along Chapple Creek (North Branch)	Spot spray or wick wipe with an appropriate herbicide. Herbicide must be applied as per instructions on the label.	Flowers all year, treat at any time.

Table 9: Total cover of herbaceous weeds on site at inception

Location	Total cover of all herbaceous and grassy weeds (%) (including high threat herbaceous and grassy weeds)	Total cover high threat herbaceous and grassy weeds (%)
1A, 1C, 2A, 2B, 2C, 2D	<1%	<1%

8.7 Pest animals

The aim of pest animal control is to protect the population of GgC and YbG from predation by foxes and impacts on habitat by rabbits.

Monitor throughout the year (at least quarterly site visits and annual camera trapping) for evidence of pest animals and undertake biennial GgC and YbG targeted survey to assess potential impacts of fox predation on GgC and YbG populations (see Section 11 for details).

Under the CaLP Act all landowners must take reasonable steps to prevent the spread of, and as far as possible eradicate, established pest animals on their land, including, but not limited to rabbits and foxes. Foxes were detected on site but rabbits were not recorded but may occur in the future.

All contractors are to undertake and provide written confirmation of inductions that include hygiene protocols that requires all machinery and equipment used for any works onsite to be cleaned off site prior to and after work activities to manage the spread of weed seeds and propagules.

Pest animal baiting must be undertaken by a licensed and suitably qualified contractor with an Agricultural Chemical Users Permit (ACUP) and used in accordance with the directions for use and the product label.

Baiting of pest animals must be undertaken in accordance with the *Agricultural and Veterinary Chemicals (Control of Use) Act 1992* and persons undertaking baiting must have the required permits and follow the document titled 'Directions for the use of 1080 and PAPP pest animal bait products in Victoria' (AV 2024a).

Contractors must provide written information about chemical bait used and methods.

Pest animal shooting can be carried out year round. Shooters must be experienced, skilled, responsible shooters that are licensed and hold current accreditations. They must adhere to all relevant laws and restrictions and locate and dispatch wounded animals as quickly and humanely as possible.

Remove any above ground fox or rabbit carcasses to prevent poisoning of native predators.

Continue to monitor for signs of new and emerging pest animals and ensure appropriate management actions are implemented.

Refer to the DEECA NVOR *Management standards for native vegetation offset sites*, Pest and deer management standards (DEECA 2025).

8.7.1 European rabbit (*Oryctolagus cuniculus*)

Rabbits must be monitored at least quarterly with annual camera trapping, site visits and habitat condition monitoring and controlled throughout the year (Table 10).

If rabbit activity is detected on site (warrants, scats, diggings, grazing/browsing, sightings) and there is evidence of overgrazing/browsing and soil disturbance, control must be undertaken to reduce rabbit numbers to levels that prevent soil disturbance and vegetation overgrazing/browsing, using an integrated approach in accordance with the DEECA NVOR *Management standards for native vegetation offset sites*, Pest and deer management standards (DEECA 2025) which would involve fumigation, hand collapsing of burrows and baiting.

Warren ripping is not permitted in the offset site. Care must be taken not to create erosion issues when warren destruction takes place.

Ensure artificial forms of harbour are removed (e.g. dumped rubbish).

Engage a professional licensed pest animal controller to undertake shooting if required, generally only effective if rabbits are in low numbers.

Undertake ongoing monitoring of rabbits including annual camera trapping and during quarterly site visits (searching for scats, diggings, warrens and rabbits) (see Section 10 for monitoring details).

8.7.2 Fox (*Vulpes vulpes*)

Foxes are a threat to native fauna and must be monitored with annual camera trapping and at least quarterly site visits to detect warrens, scats and sightings and controlled throughout the year (Table 10). Fox dens where present must be destroyed through fumigation and hand collapse.

Fox control will be undertaken in line with the PV fox baiting program used in parts of the surrounding Great Otway National Park which includes:

- Placement fox bait stations (using 1080) every 800 m – 1 km along existing tracks (must be located ~5 m off the track and buried) and replaced every 4 weeks; and
- Install signs stating, 'Fox baits containing 1080 are currently laid in the area as part of an ongoing fox control program'.

Fox dens where present must be destroyed through fumigation and hand collapse.

Fox control shooting will also be undertaken in conjunction with deer shooting and any rabbit shooting. Shooting alone will not control foxes but is a target specific humane method of control.

As foxes move throughout the landscape a coordinated landscape wide approach is important to effectively decrease fox numbers so working in conjunction with neighbouring land holders and land managers will be more effective.

Remove rubbish. Disperse artificial piles of logs and boulders that may be used as harbour by pest animals. Do not remove indigenous plants, fallen logs or boulders from the site.

Undertake ongoing monitoring of foxes with annual camera trapping monitoring program and during quarterly site visits (searching for scats, dens and foxes). Amend the control program as required to maintain effective fox control.

8.7.2.1 Performance indicators

All fox dens or rabbit warrens on site have been hand collapsed.

No increase in the abundance of pest animals evidenced by:

- Declining numbers of pest animals reported by pest animal controllers.
- Declining numbers of pest animals caught on camera traps.

No pest animal impacts on GgC and YbG habitat.

GgC and YbG continue to be recorded on site with no observed reduction in numbers.

Documentation maintained of all monitoring activities and results, and control activities.

8.7.2.2 Adaptive management

If pest animal numbers are increasing, then frequency and location of control and control methods will be reviewed, modified and updated as appropriate within three months of detection.

Contact PV and DEECA within three months of detecting uncontrolled pest animal numbers to encourage pest animal control on adjoining crown land to reduce the risk of pest animals dispersing into the site from surrounding land.

Table 10. Pest animals to be controlled – species, method and timing

Location	Common name	Methods	Timing
Along vehicle tracks throughout site	Fox	Follow Parks Victoria fox baiting program – place fox bait every 800 m to 1 km along a track (located 5 m off the track and buried). Increase frequency of baiting if monthly is not effective.	Every 4 weeks
Entire site	Rabbits	Undertake baiting	As required
Entire site	Rabbit and fox	When baiting, collect and dispose of carcasses to prevent poisoning of native predators	As required
Entire site	Rabbit and fox	Remove any (artificial) harbour that may be used by pest animals	Ongoing
Entire site	Rabbit and fox	Fumigate and hand collapse all rabbit burrows and fox dens (unlikely in sandy soil with poor structure)	As required
Entire site	Rabbit and fox	Undertake shooting if required to assist with fox and rabbit control (i.e. if baiting not reducing numbers)	As required
Entire site	New & Emerging pest animals	Monitor seasonally (spring, summer, winter, autumn) and control	Ongoing

8.8 All high threats

All high threats to native vegetation condition improvement and GgC and YbG habitat, including threats to soil structure, natural water flow, vegetation condition and the recruitment cycle must be controlled. Typical high threats requiring control listed by the NVOR for offset sites include:

- Grazing threats from species not listed under the CaLP Act, but are considered to be high threat animals due to their known environmental impact, such as deer and horses.
- overgrazing by native animals including kangaroos, wallabies and possums.
- inappropriate fire or flood regime.
- inappropriate drainage.

- threats to condition from vehicles including motorbikes.
- firewood collection/tree/log cutting or harvesting.
- other threats as identified or that may appear during the 10-year active management period.

Deer, cats, unauthorised access, inappropriate fire regime, flooding and erosion, *Cinnamon Fungus* and climate change have been identified as high threats or potential high threats within the offset site.

All high threats will be monitored using the following methods (See Section 11 for details):

- Quarterly site visits (spring, summer, autumn, winter) by Barwon Water.
- Annual site wide camera trapping (with additional game camera trapping results provided by the deer controller if when game cameras are employed).
- Biennial GgC and YbG targeted surveys and habitat monitoring.

Refer to the DEECA NVOR *Management standards for native vegetation offset sites*, Pest and deer management standards (DEECA 2025).

8.8.1 Deer

Deer were recorded on site. Currently the most effective method of deer control is shooting and an ongoing monitoring and shooting program must be undertaken throughout the year (Table 11).

A professional, skilled, experienced, responsible shooter, wildlife controller or deer harvester must be engaged to undertake deer control. They must be licensed and hold current accreditations. Shooters must adhere to all relevant laws and restrictions and locate and dispatch wounded animals as quickly and humanely as possible.

Deer control will include camera trapping along game trails and near water sources (Chapple Creek (North Branch) and the western drainage line) to determine:

- The deer species to ensure the correct guns and ammunition are used.
- To provide some indication of deer numbers, game harvesters can be used to control high numbers of deer until deer numbers drop to levels that are not viable for harvesting.
- To identify locations with the greatest deer activity so that shooting can focus on these areas to achieve most efficient, effective control of the greatest number of deer in the shortest amount of time.

Deer control must commence monthly, and frequency must be increased if deer numbers are high and continue until deer numbers decrease. Shooting frequency can then be decreased over time to the minimum frequency that controls deer numbers to levels that prevent impacts on vegetation structure and diversity and allows recovery of impacted vegetation and therefore GgC and YbG habitat.

Deer control must be undertaken in consultation and collaboration with DEECA and PV who undertake deer control on crown land in the Otways. If deer control is undertaken at the same time in the national park and offset site, then deer flushed into the site can be removed and flushed back into the national park for further control or the deer control may be able to be extended into the offset site.

Feral deer counts with the use of drone technology and AI data analysis are now a mainstream method of counting deer, however detection is compromised in areas of dense vegetation such as that present in the offset site. Camera trapping and vegetation impact surveys are currently the most effective methods of gauging the size of deer populations. However technological advances may enable detection of deer in denser vegetation in the future. Ongoing monitoring of deer must occur throughout the year including camera trapping, evidence of deer recorded during GgC and YbG targeted surveys and habitat monitoring (evidence includes: browse lines, hedging, deer prints, scats, wallows, pugging,

rub trees, scrapes and cleared, thrashed areas of vegetation), and through on ground observations recorded during quarterly field visits undertaken each season by the landowner (see Section 10 for monitoring details). If deer numbers are increasing (detected by camera trapping and increased evidence of deer and/or vegetation impacts by deer are detected during habitat monitoring) then deer control visits will need to be increased.

8.8.2 Cats (*Felis catus*).

Feral cats are declared established pest animals and can be controlled on specified Crown land under the CaLP Act, but this does not extend to private land (AV 2024b).

Currently cats can only be managed on private land by shooting (which is labour intensive and requires a lot of skill) if found near livestock (AV 2024c, DCCEEW 2024d). Alternatively, cats can be trapped if there is a council order establishing a cat curfew or no cat zone under the *Domestic Animals (DA) Act 1994* and the cat has been found on private land more than once (AV 2024c). Cat trapping must follow the *Prevention of Cruelty to Animals Act (POCTA) 1986* and POCTA regulations 2019 (AV 2024c). As the Colac Otway Shire has a cat curfew between the hours of 6 pm to 6 am, cat trapping can be undertaken within the offset site.

Cats trapped on private land must be handed to local Council so they can be scanned and returned to their owner (AV 2024c). Cats without identification must be managed by a council pound or shelter in accordance with the Code of Practice for the management of dogs and cats in shelters and pounds (AV 2024c). A Notice of Objection can be issued to owners of cats that trespass on private property, if the cat enters the property again, penalties can be applied to the cat owner (AV 2024c).

Cats trapped as a result of trespassing on private property may be immediately humanely destroyed by council if they are wild, uncontrollable or diseased (AV 2024c).

Trapping carries the risk of trapping native animals and must be undertaken by an experienced, skilled pest controller who must check the traps at least twice a day including dawn and dusk to minimise stress to native animals and to release them safely.

Elsewhere in Australia there are other effective methods of cat control such the Felixer Grooming Trap which is an automated solar operated tool to assist with the control of foxes and cats. The trap uses audio lures to attract cats and foxes and uses AI, rangefinders and sensors to distinguish cats and foxes from non-target animals. The Felixer sprays foxes and cats with a toxic gel and automatically resets, they hold 20 baits. The trap is being commercialised but is not yet legal in Victoria.

Development and trials of several bait products are being undertaken for cats (DCCEEW 2024d) and further information is available at: <https://www.dcceew.gov.au/environment/invasive-species/feral-animals-australia/feral-cats/curiosity-bait> . Currently only PAPP (para-aminopropiophenone) bait is authorised for use in Victoria by operators with a specific permit issued by Agriculture Victoria, but it can only be used on Crown land where cats are declared established pests (AV 2024b).

Undertake an annual camera trapping monitoring program. If wild cats are identified by the annual camera trapping program (or game camera trapping undertaken by deer shooters) then a professional pest controller experienced in trapping cats and handling and releasing native animals must be engaged to trap the cats. The cats must be taken to the pound for immediate destruction. Trapping is recommended each year through late autumn and early winter when food is scarce (trap baits are more attractive at that time) (Table 11). If the number of cats trapped or caught during camera trapping is increasing then the number of traps and frequency of trapping must be increased across the site. Also review methods of trapping e.g. types of baits, traps and locations of traps to increase effectiveness of trapping.

When effective methods such as the Felixer become legal/available, coordinate with DCCEEW, PV and DEECA to develop an appropriate cat control program to minimise and avoid off target impacts on GgC and YbG.

8.8.3 Unauthorised access

There is currently no evidence of unauthorised access into the site.

If unauthorised access is observed along the spur track or Morris Track or by annual camera trapping monitoring program, signage will be installed at track entrances labelled 'CONSERVATION AREA for Protected Fauna. Public Access not permitted' (or similar wording) and/or fake security cameras will be installed at track entrances. This will include signage that states the site is monitored to prevent unauthorised access and trespassers will be prosecuted. These actions will be completed within three months of detecting unauthorised access.

If unauthorised access continues then the existing wooden gate will be upgraded to a steel locked gate at the northern end of the spur track and a locked steel gate will be installed at the southern end on the boundary of the offset site within three months of detection on going unauthorised access.

If unauthorised access continues from Morris Track, fencing will be installed along the western boundary (as outlined in Section 8.5 'fencing').

If unauthorised access is occurring on the spur track around the sides of any gate/s, large rocks will be placed immediately adjacent to gate/s and in contact with each other within three months of detection of uncontrolled unpermitted access.

If unauthorised access continues then additional measures will be developed in consultation PV and DEECA within three months of detection of ongoing, uncontrolled, unpermitted access.

8.8.4 Inappropriate fire regime

Fire must be prevented from affecting the offset site where possible (Table 11).

Barwon Water will liaise with PV and DEECA each year at the commencement of the fire season to communicate the requirement to not burn the site if planned burns are going to be undertaken nearby in the future.

DEECA have provided assurance that a wildfire would be suppressed as soon as possible after it is detected to protect natural assets.

Barwon Water will liaise with Forest Fire Management Victoria (FFMV) regularly to reconfirm the importance of protecting the site from fire. As staff may change from year to year in the different roles in FFMV it is important to maintain this communication.

If fire impacts the site then intensive follow up weed control must be undertaken until native vegetation has recovered sufficiently to suppress weeds. If vegetation is not actively regenerating well within six months, then a recovery plan will be developed in consultation with DCCEEW, NVOR, PV and the Geelong Community Nursery and implemented within three months. This may include supplementary planting of indigenous species, use of logs for erosion barriers, mulching, or application of fibre webbing (Farrell and Prober 2020). Any threats such as overbrowsing/over grazing by deer and rabbits will also need to be controlled.

8.8.5 Macropod overgrazing/overbrowsing

Macropod overgrazing and over browsing can impact native vegetation conditions and must be controlled if it occurs.

If macropod overgrazing becomes evident, during habitat monitoring and/or regular site visits, then a control plan will be developed in consultation with DCCEEW and DEECA. This would include establishing exclusion plots around stands of sensitive plants to allow them to recover. As a last resort macropod control would be undertaken by engaging a licenced and experienced kangaroo harvester, or professional shooter under an authority to control wildlife (ATCW) which is obtained from DEECA or an alternative strategy developed in consultation with DCCEEW and DEECA NVOR (Table 11).

8.8.6 Flooding and erosion

Waterway protection must be maintained to protect against erosion. This includes retention of vegetation cover and fallen logs along streams to moderate water velocity during high rainfall events. Control of high threats that may impact vegetation cover and cause soil disturbance such as unauthorised access, deer, fire and macropod overgrazing will also reduce the risk of erosion.

If flooding occurs that causes loss of vegetation leading to erosion that persists after the event, then appropriate management actions will need to be developed in consultation with a stream restoration specialist, DCCEEW and the NVOR (Table 11).

8.8.7 Cinnamon Fungus *Phytophthora cinnamomi*

The risk of the spread of Cinnamon Fungus must be managed. This will be achieved by preventing unauthorised access and following strict hygiene protocols (Tyers et al. 2004, DoE 2015, DPIE 2020) to reduce the risk of Cinnamon Fungus spreading including:

- Ensure all clothing, footwear, tools, equipment, machinery, and vehicles are free of mud, soil and organic matter. Clean machinery and vehicles using a hard brush to remove any soil and wash down thoroughly with a hose. Ensure this is undertaken in a suitable location, away from areas of native vegetation. Critical contamination areas that must be cleaned thoroughly including wheel arches, wheel axils, tyre grooves, mud guards, radiators, ledges and frames, and inside driver cabs.
- Clean all contaminated equipment and footwear using a brush to remove any loose soil and spray with a sterilising solution such as 70% methylated spirits in water or 3-5% solution of sodium hypochlorite (household bleach) in water or commercial fungicidal products e.g. Phytoclean (used as per manufacturer's instructions) or industrial strength detergent (used as per manufacturer's instructions). Used cleaning fluids must be disposed of responsibly away from native vegetation.
- Ensure any plants or other materials transported into the site are certified free of weeds and pathogens by sourcing plants from nurseries accredited with the Nursery Industry Accreditation Scheme Australia (NIASA) and by ensuring materials (such as potting mixes used in plants planted out on site) conform to Australian Standards, for example AS3743 – 2003 Potting mixes.

A comprehensive explanation of issues, mitigation measures and best practice in Cinnamon Fungus hygiene must be included in all contractor inductions and signed and agreed to by all personnel before entering the site.

Undertake spot audits of contractors twice a year to ensure hygiene protocols are being followed.

Biennial GgC and YbG habitat monitoring will include assessment of plant death with evidence of dieback of Cinnamon Fungus sensitive species and an analysis of data to detect increases over time (see Section 10 for monitoring details).

If the understory vegetation species diversity and cover is declining due to Cinnamon Fungus then a plan for supplementary planting of Cinnamon Fungus resistant species will be developed and implemented in consultation with DCCEEW, NVOR, PV and the Geelong Community Nursery.

The methods and timing for the management of Cinnamon Fungus are provided in Table 11.

8.8.8 Climate change

The abovementioned management actions will help to protect GgC and YbG from the effects of climate change, by maintaining/increasing the number and diversity of hollow bearing tree species (live and dead) as the canopy matures. They will also assist with maintaining understory vegetation diversity and cover to provide food resources year round for both species and shelter from predators.

8.8.9 New and emerging threats

Any new and emerging threats must be monitored for, and appropriate management actions implemented in consultation with DCCEEW, DEECA, DEECA NVOR and PV, as outlined in Table 11.

8.8.10 Performance indicators

No high threat impacts on native vegetation and GgC and YbG habitat from:

- Unauthorised access.
- Macropod overgrazing/overbrowsing.
- Erosion.
- Cinnamon Fungus.
- New and emerging threats.

No increase in the abundance of deer and cats:

- Declining numbers of deer and cats reported by pest animal controllers.
- Declining numbers of deer and cats caught on camera traps.
- GgC and YbG continue to be recorded on site with no observed reduction in numbers.

Documentation maintained of all control activities, monitoring activities and monitoring results.

8.8.11 Adaptive management

If high threats are increasing despite implementing management, then methods will be reviewed and modified within three months of detecting increase. This may include increasing the frequency of control, the location of control and/or the methods.

Contact PV and the NVOR within three months of detecting uncontrolled high threats to encourage control of the threat on adjoining crown land to reduce the risk of threats such as cats and deer dispersing into the offset site from neighbouring crown land.

Table 11. High threat control, method and timing

Location	Description of high threat	Method for monitoring and control/actions	Timing
Entire site	Deer	Qualified deer controller engaged to undertake deer shooting program, commence monthly then decrease/increase in response to deer numbers	Commence monthly then increase/decrease frequency as required
Entire site	Cats	Qualified pest controller engaged to undertake cat trapping from late autumn to early winter	Annually

Location	Description of high threat	Method for monitoring and control/actions	Timing
Entire site	Deer and cats	Undertake seasonal (spring, summer, winter, autumn) monitoring and annual camera trapping	Quarterly site visits and annual camera trapping
Entire site – access via the spur track and/or via Morris Track.	Unauthorised access	If unauthorised access is detected from the spur track, install signage with suitable wording such as 'CONSERVATION AREA for Protected Fauna. Public Access is not permitted', (or similar wording) and/or fake security cameras at each both ends with signage stating that the site is monitored to prevent unauthorised access and trespassers will be prosecuted. If unauthorised access is detected from Morris Track then install a fence the entire length of the offset site boundary (c. 690m).	Within 3 months of detection.
Entire site – access via the spur track	Unauthorised access	If unauthorised access continues from the spur track after signs erected then permanently close both ends of the track with steel, locked gates (see Section 8.5) 'Fencing'. Temporarily retain management vehicle access for pest animal and weed control via the northern wooden locked gate for the first two years then permanently close this entrance in the third year and remediate it if being handed over to the Crown.	Within 3 months of detection
Entire site – access via the spur track	Unauthorised access	If unauthorised entry occurs around any gates on the old logging track on the spur, use boulders to reinforce the track closure structure	Within 3 months of threat identification
Entire site – access via spur track and/or via Morris Track.	Unauthorised access	Undertake seasonal (spring, summer, winter, autumn) monitoring for unauthorised access.	Quarterly
Entire site – access via the spur track and/or via Morris Track.	Unauthorised access	Monitor for breaches/damage each season (spring, summer, winter, autumn) and undertake repairs as necessary to keep gates, signage, fake security cameras and fencing in good working order.	Quarterly site visits Undertake repairs within 3 months of detecting equipment failure
Entire site	Fire	Maintain contact with PV and FFM to maintain awareness of the offset site and requirement to protect it from planned burns and wildfires.	Annually
Entire site	Fire	Undertake seasonal (spring, summer, winter, autumn) monitoring for evidence of fire.	Quarterly
Entire site	Fire	If the fire occurs, then undertake post fire weed control and monitor vegetation recovery. Prepare and implement a recovery plan within 3 months of detecting lack of vegetation recovery.	Ongoing as required
Entire site	Macropod over grazing/over browsing	Undertake seasonal (spring, summer, winter, autumn) monitoring for evidence of macropod over grazing/overbrowsing.	Quarterly
Entire site	Macropod over grazing/over browsing	If macropod impacts are detected, then develop a control plan in consultation with DCCEEW and DEECA NVOR	As required immediately on detection of threat
Gullies and waterways	Flooding and erosion	Retain vegetation cover on slopes and along waterways and fallen logs and branches across and beside streams by controlling threats to vegetation cover and soil substrate including deer, unauthorised access, inappropriate fire regime and Cinnamon Fungus.	Ongoing
Gullies and waterways	Flooding and erosion	Undertake seasonal (spring, summer, winter, autumn) monitoring for evidence of flooding and erosion.	Quarterly
Gullies and waterways	Flooding and erosion	If flooding or erosion observed to be increasing then develop a remediation plan in consultation with a stream restoration specialist, DCCEEW and DEECA NVOR.	Within 3 months of threat detection
Entire site	Cinnamon Fungus	Ensure all personnel entering the site receive training on the cleaning protocols for Cinnamon Fungus and provide the landowner with signed site inductions to confirm this	Ongoing
Entire site	Cinnamon Fungus	Ensure cleaning protocols are followed for all vehicles, machinery, equipment, and footwear of personnel entering the site by undertaking spot audits twice a year	Ongoing
Entire site	Cinnamon Fungus	Undertake twice yearly spot site audits of contractors to ensure they are following hygiene protocols	Biannual
Entire site	Cinnamon Fungus	Undertake seasonal (spring, summer, winter, autumn) monitoring for evidence of Cinnamon Fungus.	Quarterly
Entire site	Cinnamon Fungus	Undertake supplementary planting/seeding with locally indigenous understorey species that are not sensitive to Phytophthora to restore understorey cover	If required, ongoing

Location	Description of high threat	Method for monitoring and control/actions	Timing
Entire site	New & Emerging pest animals	Monitor seasonally (spring, summer, winter, autumn) and control	Quarterly

8.8.12 Rubbish

The offset site must be monitored for rubbish on a regular basis, and identified rubbish removed. No material may be stored on the site and must be removed if identified on-site.

9. Management action plan and targets

A copy of the management commitments, action plan and targets must be provided to all Barwon Water staff and subcontractors entering and working on site as part of the site induction which must be signed off when read and understood, with clarification of any requirements provided by Barwon Water if required.

Subcontractors must provide Barwon Water with the following record for each site visit to provide evidence of how they met management commitments:

- Name of each staff member working on site.
- The type and date of training received.
- Who provided the training.
- Summary of training.
- Worklog.
- GPS tracklog.
- Details on any management commitment breaches.

Barwon Water will provide all contractors with the contact details of the appointed Barwon Water staff member who must be informed immediately in the event of an environmental emergency associated with this project.

The outcomes of the 10 year management plan will be assessed with a monitoring program that includes a combination of quarterly site visits, annual camera trapping, biennial GgC and YbG targeted surveys and biennial GgC and YbG habitat condition assessments.

The 10 year management action plan and targets are provided in Table 12.

Table 12: Year 1-10 Management actions plan with targets

Year from commencement: Year 1 - 10				
Location	Management Action Description	Reference Table/Information for action	Timing	Standard to be achieved
Fencing				
Entire length of the western offset site boundary along Morris Track	If unauthorised access detected from Morris Track erect fencing along the entire western boundary.	Table 4 and Section 8.5	Within 3 month detecting threat	Fencing installed if required No unauthorised access occurring
Whole site	Induct all contractors to ensure equipment and materials are clean prior to site entry and do not contain and carry weed seeds or propagules onsite	Section 8.5	Ongoing	All contractors inducted and following hygiene protocols to prevent spread of weeds into and around the site No new weeds present that are likely to have been spread by contractors (e.g. along new fence line)
Entire offset site where fencing is erected	Monitor and maintain all fencing in good working condition and repair any breaches	Table 4 and Section 8.5	Ongoing, repair within 3 months of detection	Fencing in place and in good repair with no breaches
Whole site	Monitor (at least quarterly) for unauthorised access	Table 4 and Section 8.5	Ongoing	Monitoring completed Unauthorised access prevented
Woody Weeds				
Whole site	Monitor (at least quarterly) and control all woody weeds. Refer to Table 5 for a list of woody weeds, their control method and timing of actions Monitor (at least quarterly) and control/eliminate (<1% cover) any re-sprouting weeds or seedlings	Table 5, Table 6 and Section 8.6.1	Refer to Table 5	No mature plants present by end of Year 1 <1% cover of all listed woody weeds No off-target damage to native plants
Whole site	Induct all contractors to ensure equipment and materials are clean prior to site entry and do not contain and carry weed seeds or propagules onsite	Section 8.6	Ongoing	All contractors inducted and following hygiene protocols to prevent spread of weeds into and around the site No new weeds present that are likely to have been spread by contractors (e.g. along the spur track).
Whole site	Monitor (at least quarterly) and eliminate all new & emerging woody weeds	n/a	Ongoing	Monitoring completed <1% cover of all woody weeds
Herbaceous Weeds				
Whole site	Monitor (at least quarterly) and control all high threat herbaceous weeds. Refer to Table 7 for list of high threat herbaceous weeds, their control method and timing of actions	Table 7, Table 9 and Section 8.6.2	Refer to Table 7	Monitoring completed <1% cover of high threat herbaceous and grassy weeds No off-target damage to native plants

Year from commencement: Year 1 - 10				
Location	Management Action Description	Reference Table/Information for action	Timing	Standard to be achieved
Whole site	Monitor (at least quarterly) and control all other herbaceous weeds ensuring cover does not increase. Refer to Table 8 for list of other herbaceous weeds, their control method and timing of actions	Table 8, Table 9 and Section 8.6.2	Refer to Table 8	Monitoring completed No increase in cover of other herbaceous and grassy weeds No off-target damage to native plants
Whole site	Induct all contractors to ensure equipment and materials are clean prior to site entry and do not contain and carry weed seeds or propagules onsite	Section 8.6	Ongoing	All contractors inducted and following hygiene protocols to prevent spread of weeds into and around the site No new weeds present that are likely to have been spread by contractors (e.g. along the spur track)
Whole site	Monitor (at least quarterly) and eliminate all new & emerging herbaceous weeds	n/a	Ongoing	Monitoring completed <1% cover of all new and emerging high threat herbaceous and grassy weeds
Pest Animals				
Whole site	Monitor (at least quarterly) for and control all pest animals. Refer to Table 10 for a list of control methods and timing of actions	Table 10, Section 8.7	Ongoing Refer to Table 10	Abundance, activity, and disturbance reduced to negligible levels No soil disturbance within the offset site No active rabbit warrens to be present No active fox dens to be present No rubbish present to provide harbour Minimal artificial piles of logs and boulders
Whole site	Induct all contractors to ensure equipment and materials are clean prior to site entry and do not contain and carry weed seeds or propagules onsite	Section 8.7	Ongoing	All contractors inducted and following hygiene protocols to prevent spread of weeds into and around the site No new weeds present that are likely to have been spread by contractors (e.g. around camera trap locations)
Whole site	Monitor (at least quarterly) and control all new and emerging pest animals	n/a	Ongoing	Monitoring completed Any new & emerging pest animals controlled
All high threats				
Whole site	Induct all contractors undertaking management of high threats to ensure equipment and materials are clean prior to site entry and do not contain and carry weed seeds or propagules onsite	Section 8.8	Ongoing	All contractors inducted and following hygiene protocols to prevent spread of weeds into and around the site No new weeds detected during weed monitoring that are likely to have been spread by contractors (e.g. along new fence line)
Deer				

Year from commencement: Year 1 - 10				
Location	Management Action Description	Reference Table/Information for action	Timing	Standard to be achieved
Whole site	Undertake deer control program	Table 11; Section 8.8.1	Monthly then increasing or decreasing in frequency in line with deer numbers	Deer control undertaken
Whole site	Monitor at (at least quarterly) for deer	Table 11; Section 8.8.1	Ongoing	Monitoring completed Abundance, activity, and disturbance reduced to negligible levels
Cats				
Whole site	Undertake cat control program	Table 11, Section 8.8.2	Annually	Cat control undertaken
Whole site	Monitor at (at least quarterly) for cats	Table 11, Section 8.8.2	Annually	Monitoring completed Abundance and activity reduced to negligible levels
Unauthorised access				
Entire site	Monitor (at least quarterly) for signs of unauthorised access	Table 11, Section 8.8.1	Within 3 months of detecting threat	Monitoring completed Unauthorised access prevented
The spur track	If unauthorised access detected, then install warning and interpretive signage, fake security cameras, and steel locked gates as required	Table 11, Section 8.8.3	Within 3 months of detecting threat	Signage, fake security cameras, steel locked gates installed as required.
The spur track	If unauthorised access continues around the side of gates, install large rocks beside gates to prevent access	Table 11, Section 8.8.3	Within 3 months of detecting threat	Rocks installed as required
Morris Track	See information under fencing heading above			
Morris Track and the spur track	Maintain all gates, signage, fake security cameras in good working order	Table 11, Section 8.8.3	Within 3 months of detecting equipment failure	All gates, signage and fake security cameras maintained in good working order
Inappropriate fire regime				
Whole site	Work with neighbouring crown landowners/managers to manage fire risk and protection	Table 11, Section 8.8.4	Ongoing	Contact maintained with DEECA FFM and PV and fire prevention and protection highlighted for the offset site.
Whole site	Monitor for evidence of fire (at least quarterly)	Table 11, Section 8.8.4	Ongoing	Monitoring completed Evidence of fire documented and remediation program developed if required
Macropod overgrazing/overbrowsing				

Year from commencement: Year 1 - 10				
Location	Management Action Description	Reference Table/Information for action	Timing	Standard to be achieved
Whole site	Monitor for evidence of macropod overgrazing/overbrowsing (at least quarterly)	Table 11, Section 8.8.5	Ongoing	Monitoring completed Evidence of macropod overbrowsing/overgrazing documented, and remediation program developed if required
Flooding and erosion				
Whole site	Monitor for evidence of flooding and/or erosion (at least quarterly)	Table 11, Section 8.8.6	Ongoing	Monitoring completed Evidence of flooding and/or erosion documented, and remediation program developed if required
Cinamon Fungus				
Whole site	Ensure all contractors entering the site receive training on the cleaning/hygiene protocols for Cinamon Fungus	Table 11, Section 8.8.7	Ongoing	All contractors entering the site have completed inductions and training on <i>Cinamon Fugus management</i> and cleaning and hygiene protocols
Whole site	Ensure cleaning protocols are followed for all vehicles, machinery, equipment and footwear of personnel entering the site	Table 11, Section 8.8.7	Ongoing	All vehicles, machinery, equipment and footwear are free of soil and sterilised before entering and immediately after leaving the site
Whole site	Monitor for Cinamon Fungus (at least quarterly)	Table 11, Section 8.8.7	Ongoing	Monitoring completed If evidence of Cinamon Fungus documented, and supplementary planting program developed if required
Rubbish				
Whole site	Induct all contractors to prevent rubbish being left on site	Section 8.8.12	Ongoing	All contractors inducted regarding not leaving any rubbish on site All rubbish removed from the offset site
Whole site	Monitor for signs of rubbish on site (at least quarterly)	Section 8.8.12	Ongoing	Monitoring completed No rubbish detected
New and emerging threats				
Whole site	Monitor seasonally (spring, summer, winter, autumn) and control	na	Ongoing	Monitoring completed Numbers new and emerging high threats controlled
Annual reporting and monitoring				
Whole site	Photographs taken at each photopoint	Section 11, Attachment 3, Figure 4	Same time of year annually	Photographs taken at each photopoint, in same direction, annually

Year from commencement: Year 1 - 10				
Location	Management Action Description	Reference Table/Information for action	Timing	Standard to be achieved
Whole site	Prepare and submit an annual report to DEECA NVOR on the template provided and to DCCEEW	Section 11, Attachment 3, Figure 4	Submit reports at least 2 months prior to the Landowner Agreement anniversary date	Annual report is completed, signed, dated and submitted by the landowner at least 2 months prior to the anniversary date of the Landowner Agreement Report provides enough detail in the form of written comments and supporting evidence that an assessor can easily determine the completion of / progress against the commitments for each zone

Any activities that are not in accordance with the approved OMP cannot be undertaken without the written approval of DCCEEW and the NVOR. Approval is generally not granted unless the activity produces an equivalent of improved environmental outcome.

10. Risk assessment

The potential risks and uncertainties associated with meeting the minimum management commitments are addressed in this OMP and considered manageable. A risk assessment and description of how uncertainties will be monitored and addressed is provided in Table 13 below.

Table 13: Risk assessment and management

Potential risk	Likelihood under the OMP	Impact	Risk management	Risk factor after risk management actions
Site not legally secured	Low Barwon Water is aware that this is required for the successful establishment of the offset site and has agreed to undertake this measure.	High Failure to establish the offset.	Barwon Water is aware of the requirement to secure the site and has agreed to enter into a Section 69 Agreement signed by Secretary to DEECA once the OMP is approved by DCCEEW.	Low
Unpermitted site access and damage to GgC and YbG habitat	Low Barwon Water understands that preventing unauthorised access is important to protecting the GgC and YbG habitat in the offset site and have agreed ensure the spur track remains closed. They have also agreed to undertake a range of measures including installing steel locked gates, signage, fake security cameras at either end of the spur track and fencing along Morris Track as required if unauthorised access occurs.	High Impacts of unauthorised access within the offset site could include destruction of native vegetation through the formation of unauthorised access trails; illegal firewood collection; and soil disturbance resulting in erosion. Illegal access may also spread Cinnamon Fungus and weed seeds via vehicle	Barwon Water has been engaged in discussions with the site assessor throughout the offset establishment process regarding requirements to prevent unauthorised access if it occurs. Quarterly site monitoring, annual camera trapping for threats, biennial GgC and YbG biennial habitat monitoring, and annual reporting will identify unauthorized access. If unauthorized access occurs via the spur track, Barwon Water will initially install steel locked gates at either end, then will try signage and possibly fake security cameras. If access continues around the side of gates large boulders will be used to block any gate bypass occurring on the spur track.	Low

Potential risk	Likelihood under the OMP	Impact	Risk management	Risk factor after risk management actions
		tyres and people's footwear and clothing.	If unauthorised access occurs along Morris Track Barwon Water will erect a fence along the entire length of the western offset boundary.	
Weed control not effective	<p>Low</p> <p>Barwon Water understands that weed control is required to protect and improve habitat quality in the offset site and will engage professional experienced weed contractors who will be inducted and trained to undertake the work effectively.</p> <p>Barwon Water have agreed to undertake weed monitoring and use adaptive management to ensure weed control methods are effective.</p> <p>The site is relatively weed free and accessible and so effective control of weeds on site is considered feasible and achievable.</p>	<p>High</p> <p>Lack of weed control allows weeds to spread, leading to deterioration of the vegetation conditions at the offset site that would reduce GcC and YbG habitat quality and extent.</p>	<p>Barwon Water have agreed to implement the weed management program included in the OMP.</p> <p>Quarterly site monitoring, biennial habitat monitoring, and annual reporting will identify ineffective weed control quickly.</p> <p>Adaptive management will be undertaken immediately if ineffective weed control is identified.</p> <p>Weed control methods will be continually reviewed and the methods, and/or frequency and/or timing of weed control updated accordingly until weed control is achieved.</p>	Low
Pest animal and wildlife control not effective	<p>Low</p> <p>Barwon Water understands that pest animal control is a required management commitment and has agreed to engage experienced skilled pest control contractors with the required permits/licences to manage pests on their land.</p>	<p>High</p> <p>Lack of pest animal control within the site would have direct impacts on the GgC and YbG including predation by foxes and cats, and potential</p>	<p>A detailed pest animal program for foxes, rabbits, deer and cats is included in this OMP and Barwon Water have agreed to implement the program.</p> <p>Quarterly site monitoring, annual camera trapping for threats, biennial GgC and YbG targeted surveys, biennial habitat monitoring, and annual reporting will identify ineffective pest animal control.</p>	Low

Potential risk	Likelihood under the OMP	Impact	Risk management	Risk factor after risk management actions
		destruction of habitat by deer and rabbits.	Adaptive management will be applied immediately if ineffective pest control is identified, and methods will be continually updated until effective pest control is achieved.	
Inappropriate fire regime negatively impacting GgC and YbG habitat	Low Barwon Water understands that it is important that the site is not burnt to protect GgC and YbG habitat.	High If the site is burnt it will decrease the quality and extent of GgC and YbG habitat, particularly is the fire is high intensity and/or burnt multiple times. This would be highly likely to lead to a decline in the population of GgC and YbG on site.	Barwon Water will liaise with PV and DEECA to protect the site from planned burns and with FFMV to highlight the importance of protection in the event of wildlife occurring within or near the offset site. Quarterly site monitoring, biennial GgC and YbG habitat monitoring, and annual reporting will identify evidence of fire onsite. If fire does impact the site a site recovery plan will be developed and implemented.	Low
Flooding and erosion not prevented	Low Barwon water understands the importance of ensuring vegetation condition and cover and instream wood (logs and branches) remains intact by managing threats such as unauthorized access, deer and Cinnamon Fungus.	High Flooding and subsequent erosion can lead to deterioration in vegetation condition that would reduce GgC and YbG habitat quality and extent.	Barwon Water will implement actions to prevent unauthorized site access if it occurs, implement programs for weed control, pest animal and deer control, and if required, rabbit control. Barwon Water will also ensure that strict hygiene controls are followed by all authorized persons entering the site. Quarterly site monitoring, biennial GgC and YbG habitat monitoring, and annual reporting	Low

Potential risk	Likelihood under the OMP	Impact	Risk management	Risk factor after risk management actions
			will identify evidence of flooding and/or erosion onsite.	
Dieback of plants from Cinnamon Fungus	<p>High</p> <p>Barwon Water understands that Cinnamon Fungus is present in the landscape and on site and will ensure that personnel entering the site will adhere to strict cleaning protocols to limit the spread.</p> <p>Under the OMP, vegetation monitoring includes the assessment of evidence of dieback from Cinnamon Fungus and the impact on GgC and YbG habitat so restoration of habitat can occur if required.</p>	<p>Medium</p> <p>Cinnamon Fungus can cause the death of canopy and understorey species. This can reduce vegetation cover and in turn reduce the quality of habitat through decreased nesting/denning, shelter and foraging opportunities for GgC and YbG.</p> <p>However not all flora species are susceptible to Cinnamon Fungus, so there will still be some vegetation cover and potentially some suitable habitat persisting on site despite the presence of the disease.</p>	<p>The strict protocols outlined in this OMP will help prevent the spread of Cinnamon Fungus through the site by authorized access. However, it may move through the site and along drainage lines and elsewhere when soil moisture is high during wet periods.</p> <p>Quarterly site monitoring, biennial GgC and YbG habitat monitoring, and annual reporting will identify evidence of Cinnamon Fungus onsite.</p> <p>If degradation of GgC and YbG habitat by Cinnamon Fungus is detected, and natural recovery of understorey cover is not occurring, supplementary planting and/or direct seeding of indigenous native understorey plants that are not affected by Cinnamon Fungus will be undertaken and informed by monitoring to restore GgC and YbG habitat.</p> <p>The site is contiguous with adjoining extensive areas of suitable habitat so there is the opportunity for the species to move in and out of the site while supplementary planting matures.</p>	Low
New threat arises that	Low	Low to medium	Regular quarterly site monitoring, annual threat camera trapping, biennial GgC and YbG targeted	Low

Potential risk	Likelihood under the OMP	Impact	Risk management	Risk factor after risk management actions
impacts GgC and YbG habitat condition and their presence.	The site will be regularly monitored as part of the OMP management and monitoring commitments, so any new threats will be readily identified, and a control program developed in consultation with DCCEEW and NVOR.	Impact will depend on the threat, however early detection will assist minimise impacts.	surveys and habitat monitoring in the offset site is part of the OMP requirements to detect new and emerging threats.	
Environmental emergencies	<p>Low</p> <p>Barwon Water will have a key emergency contact person responsible for managing environmental emergencies associated with the project and this person's details will be provided to all authorised personnel entering the site.</p> <p>All Barwon Water staff and subcontractors will be advised of the emergency contact details before going on site.</p> <p>All Barwon Water staff and subcontractors will be inducted and trained for their relevant tasks as per the management plan.</p> <p>Subcontractors engaged will only include experienced, skilled personnel with the relevant training and permits to undertake the work they are engaged to do. The procedures they have in place for environmental emergencies must be detailed in their SWMS or JSA or similar and submitted and reviewed by Barwon Water before entering the site and undertaking works.</p>	<p>Low to medium</p> <p>Impact will depend on the emergency, however the engagement and induction of trained, experienced personnel that have safety procedures put in place will assist with minimising impacts.</p>	<p>An appointed Barwon Water staff member will be responsible for ensuring all staff entering the site are trained, experienced and have the correct permits and safety procedures in place for the work they are undertaking. They will have the power to stop and direct works to manage emergencies effectively.</p> <p>The appointed Barwon Water staff member will ensure all authorised personnel entering the site have their details and that they must notify them immediately if an environmental emergency occurs.</p>	<p>Low</p>

11. Monitoring and reporting requirements

Commonwealth EPBC reporting

To assess and confirm the effectiveness of the OMP in meeting the minimum management commitments, Barwon Water must implement a monitoring and reporting program. An annual report must be provided to DCCEEW each year of the first 10 years of this OMP within 20 days of the anniversary of the date of the execution of the Section 69 security agreement for the purposes of monitoring, compliance, and auditing to assess performance of the offset.

An internal audit of the implementation and progress of the OMP and the likelihood of achieving the OMP goals must be undertaken by Barwon Water in the fifth year of the OMP implementation. The results of this audit do not need to be reported externally.

An audit must also be undertaken within one month of Barwon Water becoming aware of a disturbance event/environmental incident e.g. flooding or fire to assess if the OMP management actions and monitoring program is adequate or if it needs to be updated to monitor and manage impacts to meet the offset goals.

If an audit or annual report findings indicate that the OMP objectives and goals may not be met by the approval expiry date then the OMP must be reviewed and updated within one month of Barwon Water being notified of the audit or annual report findings. The updates must be agreed to by DCCEEW and DEECA.

In the 12th year of the OMP, a qualified ecologist must be engaged to undertake monitoring and preparation of a monitoring report that must be provided to DCCEEW to assess the progress of management in maintaining the offset objectives.

The year 12 report must provide the following information:

- A determination of whether or not the offset outcomes specified in the OMP are being achieved.
- Details of the areas and habitat quality of GgC and YbG present within four months of the 12th anniversary of the commencement of the approved OMP. This information must be submitted within 40 days of the 12th anniversary of the commencement of the OMP implementation to provide enough time for DCCEEW to review and assess compliance before the 12th anniversary.

Twelve months prior to the approval expiry on 17th January 2039 (i.e. in the second half of 2037), Barwon Water must engage a suitably qualified ecologist to undertake monitoring of the offset site in the second half of 2037 to and prepare and submit a monitoring report (offset delivery report) to DCCEEW by 17th January 2038.

The 2038 offset delivery report must provide the following information:

- A final determination of whether or not the offset outcomes specified in the OMP have been achieved and being maintained.
- Details of the areas and habitat quality of GgC and YbG present in the year prior to the 2039 approval expiry (2038). This report must be submitted by 17th January 2038 to provide enough time for the regulators to review the report and assess compliance before the approval expiry date.

Barwon Water must notify DCCEEW in writing, within two business days, of becoming aware of any incident and/or potential non-compliance and/or non-compliance with the conditions or

commitments made in the OMP. The notification must specify the condition or commitment made in the OMP that has been breached including:

- A short description of the incident and/or potential non-compliance and /or actual non compliance.
- The location (including co-ordinates), data and time of the incident and /or potential non-compliance and/or actual non-compliance (or the best information available at the time).

Within 12 days of becoming aware of any incident and /or potential non compliance and/or non compliance with conditions or commitments made in the OMP, Barwon Water must specify the corrective actions or investigations already undertaken and:

- The potential impacts of the incident and/or non compliance.
- The method and timing of any corrective action that will be undertaken.

Within one month of becoming aware of any incident and/or potential non-compliance and/or non-compliance with the conditions or commitments made in the OMP Barwon Water must complete a review of the OMP and management methods. The OMP must be updated if required to ensure OMP will achieve the offset objectives and outcomes. The updates must be agreed to by DCCEEW and DEECA.

No further reports are required to be provided to DCCEEW after the project approval expires unless requested.

Monitoring data (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval must be prepared in accordance with the *Guidelines for biological survey and mapped data*, (CoA 2018) and the *Guide to providing maps and boundary data for EPBC Act projects*, (CoA 2021), or as otherwise specified by the Minister in writing.

Victorian DEECA NVOR reporting

Under the Section 69 Agreement, landowners are required to monitor the site quarterly for threats and submit a report annually to the NVOR using the bespoke Annual Report Monitoring template prepared by the Site Assessor provided in Attachment 3. A report must be provided for each year of the ten years of this management plan after the execution of the Section 69 Agreement and thereafter at the reasonable request of the Secretary. Reports must be prepared using the Annual Report Monitoring template provided by the Department and prepared by the site assessor (Attachment 3).

The annual report addresses progress against the commitments set out in this Landowner Agreement. Annual reports must provide enough detail in the form of written comments and supporting evidence that an assessor can easily determine the completion of, or progress towards meeting the commitments for each zone. A minimum of one piece of evidence is to be provided per management commitment, such as a work log, photographs of works, before/after photos, receipts/invoices for equipment, materials, labour or professional fees.

The monitoring report must include the progress of management actions in achieving annual targets outlined in the OMP. At the end of 10 years of active management, the site is required to be maintained in perpetuity so that it meets or is in better condition than the minimum required offset commitments.

Reports must be submitted to DCCEEW and NVOR at least two months prior to the anniversary date of the execution of the Section 69 Landowner Agreement to allow time for review and assessment of compliance.

The monitoring observations and annual reporting must be submitted in the Annual Report Monitoring template designed for this Landowner Agreement during offset establishment.

No further reports are required to be provided to DEECA NVOR after 10 years unless requested.

11.1 Monitoring

The monitoring results will be used to assess the effectiveness of current management actions, highlight new or emerging threats and identify the need for adaptive management.

An analysis of interactions between factors such as weather, location monitoring methods and results will be undertaken to assist with the interpretation of the findings.

Monitoring results will also be used to help refine and improve the effectiveness of monitoring methods.

Camera trapping, targeted surveys habitat assessments will be undertaken by suitably qualified ecologists with relevant professional qualifications experienced in undertaking threatened species surveys including GgC and YbG targeted surveys and habitat assessments.

11.1.1 Quarterly site inspections for threats

Under a Section 69 Agreement an assessment site must be visually inspected four times a year (spring, summer, autumn and winter) to identify and record threats. The following information must be collected and provided to the NVOR using the Annual Report Monitoring template (Attachment 3) and this information can also be used to complete the annual report to DCCEEW:

- Date.
- Time.
- Name and place of work of person undertaking the site visit.
- Evidence of unauthorised site access.
- The condition of any fencing/gates/signage.
- The cover of high threat weeds and any mature plants present.
- The trend in weed cover across the site compared to previous years (increasing/decreasing).
- Any new and emerging weed species in the site including along the site boundaries.
- Evidence of dieback in canopy trees or understory shrubs.
- Evidence of existing pest animals.
- Evidence of new pest animals.
- Evidence of any fire (extent, location, date).
- Evidence of macropod overgrazing/overbrowsing.
- The condition of waterways including evidence of flooding or erosion.
- Evidence of Cinnamon Fungus.
- Evidence of rubbish dumping.
- Evidence of any new threats.

11.1.2 Fixed photopoints - annual photo point monitoring - threat remediation

Annual photo point monitoring of threat management is a requirement under a Section 69 Agreement. Photopoint monitoring is where repeat photographs are taken from a fixed point. They can show work done, results and improvement or deterioration in site condition over time. Photos that demonstrate the progress and effectiveness of threat management must be taken from the same fixed photo monitoring point on the same cardinal bearing (i.e. N, S, E, or W). They will ideally be taken at a similar time to those taken for the original site assessment: 24-26 June 2024 and included in the annual report to the NVOR and can also be included in the report to DCCEEW.

These photo point locations must be clearly marked on a map and all photos must be clearly labelled with date, location and bearing, as well as notes about the condition of the vegetation and the threat being managed e.g. erosion, high threat weed invasions, unauthorised access etc. and how management is progressing. This will enable the progress of threat remediation to be visually recorded and compared each year.

During the initial site assessment in June 2024, the coordinates and baseline photos for three permanent photo monitoring points were recorded (Attachment 3), they included one weed *Montbretia along Chapple Creek (North Branch) and a deer trail and deer browsing near the western drainage line. The photo points will need to be permanently marked and maintained (Table 14).

Table 14: Photo point establishment and monitoring

Zone(s)	Method	Timing
1A,2A, 2D,	Install permanent markers at three fixed photopoints for one weed along Chapple Creek (North Branch), a deer trail and deer browsing. Add photopoints for additional threats over the 10 years of management if required	Within 3 months of commencement of execution of the Landowner Agreement
1A,2A, 2D,	Take photographs	Ongoing, at least once per year at approximately the same date and time as the original site assessment.
1A,2A, 2D,	Replace photo point markers if they are removed or displaced	Ongoing

11.1.3 Annual camera trapping – threat detection

Annual camera trapping will be undertaken in eight locations across the offset site to monitor the site each year to detect the presence and indicative population numbers of each threat including deer, cats, foxes, rabbits, and to detect native animals such as macropods, and new or emerging threats such as pigs or unauthorised access.

Camera trapping must be undertaken by a qualified zoologist/ecologist experienced in setting up camera traps. The monitoring results must be documented in the annual DCCEEW and NVOR reports.

Methods

Camera type: Motion activated infrared flash cameras will be used with a minimum 12 megapixel resolution with adequate storage, battery power to last at least 25 days and a weatherproof case.

Camera settings: Cameras will be set up to take three images in quick succession per trigger (with a 30 second delay between each trigger), set at moderate sensitivity with a minimum 10MB image resolution then auto reset.

Survey effort: Eight cameras, one each at eight camera trap locations across the site will be deployed for 25 trap days in the same locations used by GHD to survey for LnP (which was not found) but did detect a range of threats (GHD 2024).

Camera position: Cameras will be secured to a tree or branch around 100-150 cm above the ground with the camera angled slightly towards the ground to capture movement to a distance of 10 m.

Lure: Camera traps near tracks will be baited with fried or raw chicken, sardines or other suitable meat-based lure to attract predators such as cats and foxes. Bait is not necessary to capture other threats such as deer and macropods.

Timing: Camera traps will be set up in summer to collect data that is comparable with the data collected during the initial targeted survey monitoring undertaken by GHD (2024). The specific timing will be weather dependent to avoid summer storms, high winds and days of high bushfire risk.

Image processing: Images will be downloaded and reviewed by a qualified, experienced zoologist/ecologist to identify and document the type and location of the threat.

The results must be included in the annual report to DCCEEW and the NVOR.

Over the 10 year period the location of these camera traps can be moved or additional camera traps used if required to confirm threat activity in different locations.

The following data must be recorded:

- Dates cameras were deployed and collected.
- Camera type.
- Camera settings.
- Number of effective camera trapping days, number of cameras set – any issues (e.g. equipment failure).
- Location.
- Name and place of work of person undertaking camera trapping.
- General description of weather conditions during each survey period (e.g. storms, dry weather, warm weather etc.).
- Threats recorded at each camera location including:
 - Type (pest species such as foxes, high threat species such as deer or cats, unauthorised access, new or emerging threat such as pigs).
 - Number of detections (e.g. number of deer or cat images, and individuals where distinctive coat colour or markings make this possible). Given three images will be taken per trigger, one detection should be counted for each set of three images.
 - Ages (e.g. mature deer with young, cat with kittens).
 - Activity (e.g. cat carrying prey including prey species if able to be determined).
- Native vertebrate fauna (species, number, and age class if able to be identified).

11.1.4 Biennial targeted surveys (years 2, 4, 6, 8 and 10)

Biennial targeted surveys must be undertaken by a qualified zoologist/ecologist who is experienced in undertaking targeted surveys for GgC and YbG to confirm their continuing presence and provide an indication of abundance, which would help to determine if suitable habitat is being maintained within the offset site. Personnel undertaking targeted surveys must have the relevant animal ethics and research approvals.

The surveys will be undertaken in late spring to early summer during the active GgC breeding season when they are more likely to be calling, feeding and nesting onsite. This provides the opportunity to collect data on use of hollows and suitable food sources (i.e. tree and understory species). They are also known to move to wet sclerophyll forests (habitat present in the offset site) during the summer months (DAWE 2022a). Yellow-bellied Gliders have territories and are vocal so resident YbG are likely to be detectable year round (DAWE 2022b).

Surveys will include diurnal bird surveys for GgC as they are active in the daytime and call playback with spotlighting for YbG at night as they are nocturnal. If spotlighting does not detect YbG then PAM monitoring will be undertaken as a follow up method to assess their presence. Similar survey methods and survey locations to those used by GHD during the initial targeted surveys to confirm these species and suitable habitat onsite will be used. This will allow a comparison of data with subsequent monitoring data and to build on the knowledge around GgC and YbG at the site.

The methods and results must be included in the relevant years annual reports for DCCEEW and the NVOR.

11.1.4.1 Gang-gang Cockatoo surveys (diurnal bird surveys)

The Survey Guidelines for Australia's Threatened birds (DEWHA 2010) and Birdlife Australia Survey Techniques (BA 2015) were reviewed to develop the survey method. These documents do not include information for GgC specifically, but Survey Guidelines for Australia's Threatened birds do include other cockatoo species that were used to develop the survey method.

Methods

The surveys will include 40 x 20 min transect point surveys over eight days. This is a total survey effort of 14 hours and 20 minutes which is in line with survey guidelines which range from 12-16 hours depending on the species of cockatoo (DEWHA 2010).

The surveys will consist of 1 x 20 minute daily survey conducted at each of five monitoring locations in the early morning when birds are likely to be more active (DEWHA 2010). These locations are spaced at around 400 m or more apart so they can be surveyed on the same day to minimise the risk of multiple recordings of the same bird as per Birdlife survey recommendations (BA 2015).

At each point location, a two hectare area will be searched along the tracks in a configuration that suits the location, Birdlife Australia suggests a variety of options including:

- 100 m x 200 m rectangle.
- 400 m x 50 m transect. or
- A circle with a radius of 80 m.

The transects will follow Morris Track on the western boundary of the offset site, and the spur track. The point locations along the tracks will be located near the camera trapping locations

situated close to the tracks. This includes two along Morris Track, one halfway along the spur track and the other at the southern end of the spur track (Figure 4).

A point survey will be undertaken at the north-eastern most PAM monitoring point to assess the north-western part of the offset site. (Figure 4).

The data recorded will include:

- Survey details:
 - Location.
 - Date.
 - Name and place of work of person undertaking survey.
 - Start time.
 - Duration.
 - Weather conditions.
- GgC records:
 - GgC calls and sightings (using naked eye and binoculars).
 - Number, age, and sex where this is able to be determined (i.e. if the birds are directly observed, and where juveniles can be confidently distinguished from adult females).
 - Activity: Flying over, feeding, roosting and/or in nesting hollow
 - Habitat:
 - If birds are observed feeding, the species of tree or shrub will also be recorded if able to be identified.
 - The EVC.

Incidental observations of birds or GgC calls will also be recorded during other monitoring activities.

The results of targeted surveys must be included every two years in the relevant years annual report to DCCEEW and the NVOR.

11.1.4.2 Yellow-bellied Glider surveys (nocturnal)

Call playback and spotlight surveys

Call playback and spotlight surveys are considered to be an acceptable method for YbG as they have distinctive vocalisations and are active throughout the year (DSE 2011). Spotlight surveys are a commonly used method for surveying arboreal animals and will be used to visually identify the species. The methods outlined here follow recommendations provided in the 'Yellow-bellied Glider Survey Standards' (DSE 2011).

Call playback and spotlight surveys will be undertaken along transects in two locations in the offset site and the information collected will be included in the relevant years annual DCCEEW and NVOR reports.

Methods

Call playback and spotlighting surveys will be conducted on foot, along Morris Track on the western boundary of the site and along the spur track, a combined total length of c. 1 km which is the distance recommended by DSE (2011).

The surveys will be undertaken at dusk or soon after as this is the time YbG are actively emerging from dens to feed for the night (DSE 2011). It is recommended that surveys be undertaken during dry, warm, clear conditions, and if possible, when there is minimal moonlight to maximise the probability of detection. If conditions are good, then one survey should be adequate. If poor conditions occur (e.g. rain), then several survey nights may be necessary (DSE 2011).

As the surveys are undertaken at night and the site has steep, damp, densely vegetated gullies, undertaking surveys along tracks is a safer option. In addition, absence of understory vegetation also allows a clearer view of the canopy and tree trunks to spot YbG than in areas with dense understory. It is estimated that YbG can be heard up to 300 m away, the locations of the survey transects points provides coverage of the majority of the site (Figure 4) (DSE 2011).

The surveys will start with a 10 minute period of listening for YbG calls. This will be followed by a three minute call playback of pre recorded YbG calls, then a two minute listening period. This will be followed by a three minute call playback of a pre recorded Powerful Owl (*Ninox strenua*) which is a predator of YbG and can trigger YbG to call, this will then be followed by a two minute listening period.

This sequence will be continued while slowly walking at a pace of around 100 m per five minutes, stopping at 25 minute intervals to listen for YbG movement and calls. It should take around 35 minutes to survey the entire length of the spur track from northern offset site boundary to the southern boundary and 25 minutes to survey Morris Track along the full length of the western boundary.

Spotlights will be used to locate YbG in trees and observe their activities e.g. utilising hollows, feeding and moving between trees. Binoculars will be used to assist in the identification of YbG in taller trees during spotlighting. Thermal infrared scopes may be used as a secondary method to assist with detecting additional YbG individuals or species presence if YbG are not detected by conventional spotlighting.

The following data will be collected, analysed and used to inform the management of the offset site and will be included in the annual report to DCCEEW and the NVOR:

- Survey location.
- Date and time of record.
- Name and place of work of person undertaking the survey.
- Conditions at the time (e.g. temperature, rainfall, level of moonlight, visibility, fog etc.).
- Methods used (length of transect, time spent surveying, call playback methods used, number of spotlights used, amount of time spent spotlighting).
- GPS coordinates of the observer and projected GPS position for each YbG heard or seen.
- YbG activity (e.g. feeding, denning, gliding).
- Description of YbG observed – (juvenile, mature etc.).
- Clear photos of YbG if possible.
- A total count of the number of individual YbG recorded per spotlight hour or spotlight kilometre for each survey.

The results of targeted surveys must be included every two years in the relevant years annual report to DCCEEW and the NVOR.

Passive Acoustic Monitoring (PAM) surveys

Passive Acoustic Monitoring (PAM) is a relatively new survey method being used to detect terrestrial vertebrates such as YbG (Hoefer et al. 2023).

PAM is not the preferred survey method for YbG at the offset site, in part as the spotlight surveys are expected to be just as if not more informative, with potentially less time needed to effectively monitor the species, particularly if manual call identification is required for PAM. While PAM is also less labour intensive in the field than call playback and spotlight surveys, it is most often limited to detecting the presence of YbG. It does not provide the opportunity to collect other data on activities such as tree hollow use and feeding that call play back with spotlighting provides. This information is important to gather information on habitat suitability and utilisation and assess the effectiveness of and inform management actions to maintain and enhance YbG habitat.

If YbG are not detected during call playback and spotlight surveys or with the use of thermal infrared scopes along tracks, PAM will be undertaken at five remote locations across the property (which are not readily accessible in the dark). They are the same locations that GHD undertook PAM monitoring during the initial targeted survey and habitat suitability site assessment in March 2024 (GHD 2024) which detected YbG.

The data collected from the PAM monitoring will be included in the relevant years annual report to DCCEEW and the NVOR.

Methods

Audio recorder type: A passive, acoustic monitor designed for wildlife monitoring, housed in a waterproof container that records audio up to 300 m away will be used. The monitoring points are located about 300 m apart so devices that record over greater distances should not be used. This will reduce the risk of the same YbG's being recorded simultaneously on multiple PAM devices. It should be noted that some readily available remote acoustic recorders struggle to detect calls at substantially shorter distances which may also confound results, so this specification should be taken into account when selecting a model.

Audio recorder settings: PAM devices will be set up to record for at least four hours immediately after dusk as this is when YbG are most vocal (Whisson et al. 2021).

Survey effort: Five PAM devices, one each at five PAM locations spread across the site, will be deployed for 12 days to accommodate bad weather which can interfere with audio recordings (Whisson et al. 2021) and is associated with decreased YbG activity (DSE 2011).

Audio recorder positions: PAM devices will be secured to a tree trunk 2-2.5 m above the ground to reduce the risk of detection and theft but can be set lower at 1.5 metres above the ground as described by (Whisson et al. 2021). The devices should be placed away from foliage to reduce ambient noise from contact with vegetation during windy periods.

Timing: PAM monitoring will be undertaken in spring or summer as YbG tend to be more active in warmer weather (DSE 2011).

Audio recording analysis: Audio recordings will be downloaded and analysed by an experienced zoologist/ecologist familiar with YbG calls, and if necessary, trained in the use of software to help identify YbG audio and manually confirm it.

The results must be included in the annual report to DCCEEW and the NVOR.

Over the 10 year period the location of PAM meters can be moved if required to capture YbG calls in different locations in the offset site.

The following data will be recorded:

- PAM device type and unique number ID.
- Name and place of work of person undertaking PAM.
- Date and time each PAM device was deployed and collected.
- Location of each PAM device.
- PAM device software and settings (configuration application software used, time of day meter was set to record and length of recording).
- Number of effective PAM days, total number PAM devices deployed, and any issues (e.g. equipment failure, requirement to change batteries or SD cards).
- Weather conditions during each PAM survey period (rain and wind may be detected as ambient noise in PAM recordings).
- EVC.
- Evidence of habitat disturbance nearby.
- Software used to analyse PAM audio.
- Number of 'independent' YbG calls recorded at each site including date and time.

An analysis of interactions between factors such as weather, location and number of recordings will be undertaken to assist with the interpretation of the findings.

The results of PAM surveys must be included every two years in the relevant years annual report to DCCEEW and the NVOR.

11.1.5 Habitat monitoring (years 2, 4, 6, 8 and 10)

Monitoring of GgC and YbG habitat in the offset site must be undertaken by a qualified zoologist/ecologist experienced in undertaking GgC and YbG habitat in years 2, 4, 6, 8 and 10 to assess the progress of the OMP against the agreed management commitments to maintain GgC and YbG habitat. This will assist with risk management by providing feedback to guide adaptive management (if required). The results must be included in the annual report to DCCEEW and DEECA NVOR.

The Habitat Hectare (HHa) assessment method is the accepted method in Victoria for assessing the condition and quality of vegetation at Victorian offset sites but is not designed to be a monitoring tool.

There are no formal habitat assessment guidelines for GgC and YbG and as it is already confirmed that species occur on site, so the habitat assessment focuses on confirmation of known habitat components.

Methods

Hollow bearing trees – potential GgC nest trees and YbG den trees

Hollow bearing tree characteristics used by GHD are used here to maintain consistency with data collection for between year data comparisons (Table 15).

Table 15. Favorable hollow characteristics for Gang-gang Cockatoo and Yellow-bellied Glider (source GHD 2024)

Hollow characteristic	Gang-gang Cockatoo	Yellow-bellied Glider
Height above ground	5 - 9.4 m, assume at least 5 m	5.2 - 9.5 m, assume at least 5 m

Hollow characteristic	Gang-gang Cockatoo	Yellow-bellied Glider
Hollow entrance (span, height)	minimum 12 cm	Not available
Hollow entrance (diameter)	range 9 - 24 cm	average 10.6 cm
Type of hollow favoured	any (trunk or limb)	any (trunk or limb)
Signs of occupation	Chew marks around rim/entrance	Smoothing of rim/entrance

- Survey the trees recorded by GHD (GHD 2024) included trees with observable hollows or expected to be hollow bearing due to their large size (hollows may not always be visible from the ground due to height and/or view being obstructed by surrounding vegetation). Any additional hollow bearing trees found on site will also be surveyed and the following information will be recorded:
 - Location.
 - Dead or alive.
 - Tree species.
 - Tree size (DBH and estimated height).
 - EVC.
 - General tree health and evidence of Cinnamon Fungus.
 - Signs of disturbance on the tree or in the surrounding landscape (e.g. antler rubbing, fire, deer scrape at base, erosion).

Where possible also record the following information:

- Any evidence of use by GgC or YbG (e.g. direct sightings of either species in hollows, chew or claw marks around the hollow, or GgC nesting material at the base of the tree).
- The number of hollows in each tree.
- Approximate height of each hollow.
- Approximate diameter opening of each hollow.
- Evidence of current use (and which species: GgC and/or YbG);
- Evidence of potential future use (e.g. small hollows which may increase in size).
- Photos of hollows.

Sap feed trees (YbG)

- Survey feed trees for V shaped feeding notches mapped by GHD in 2024 (GHD 2024) and any additional feed trees found on site recording the following information:
 - Location.
 - Age of feed marks (old fresh or both).
 - Tree species.
 - Tree size (DBH and estimated height).
 - EVC.
 - General tree health and evidence of Cinnamon Fungus.
 - Signs of disturbance (e.g. antler rubbing, fire, deer scrape at base, erosion).

Understory foraging habitat for GgC

The understory habitat for GgC will be monitored in each of the eight zones across the site (Figure 4). The monitoring locations were selected during the site assessment to capture each EVC, the waterways and different elevations and aspects.

Some locations are situated near tracks and others some distance from tracks to capture the different threats in these areas. For example, there are more high threat weeds near tracks, but there is evidence of deer impacts further from the tracks.

The assessment of understory foraging habitat and general vegetation condition will include the collection of data that is comparable between years and also contributes to the understanding of suitable habitat for GgC.

The data will be collected in a 25 m x 25 m area centred on the assessment point as it was found that an area this size captured the majority of common understory woody species during the site assessment.

The data collected will include:

- A species list of woody understory trees and shrubs
- An assessment of the percentage cover of each species
- Evidence of recruitment (including woody shrubs and canopy trees)
- Observations of any GgC feeding and which species they were feeding in
- Evidence of threats to vegetation health (e.g. deer impacts, Cinnamon Fungus, unauthorised access, fire etc.).

The results of habitat monitoring must be included every two years in the relevant years annual report to DCCEEW and the NVOR

Opportunistic observations

When conducting targeted surveys and habitat monitoring additional information will be collected opportunistically along and around hollow bearing and sap feeding trees, when walking to habitat understory monitoring points and while conducting diurnal GgC surveys. This information will be included in the annual reports to DCCEEW and the NVOR and will be used to inform management. The information collected will include evidence and location of the following:

- Weeds (including species, number of individuals and, maturity ([juveniles or mature])).
- Pest animals (e.g. fox or cat scats).
- Unauthorised access (including illegal firewood collection and vegetation damage).
- Fire.
- Overbrowsing/overgrazing by macropods.
- Flooding/erosion.
- Cinnamon Fungus dieback in canopy trees and/or shrubs.
- Rubbish dumping.
- Other threats such (e.g. excessive herbivory caused by deer, macropods; rabbits, deer scrapes, rub trees, game trails etc.).
- New and emerging threats.

11.2 Reporting

The annual report must compare each year’s management outcomes and compliance with the minimum management commitments agreed to by DCCEEW and set out in this OMP.

11.2.1 DCCEEW requirements

The reports must include the following information to satisfy DCCEEW:

11.2.1.1 Site information

Landowner of the offset site:	
Location and address of the offset site:	
Offset site number (if applicable):	
Offset plan reference number (if applicable):	
Responsible authority:	
Report #:	
Signature:	
Date:	

11.2.1.2 Data management

All monitoring data (including sensitive ecological data) surveys, maps and other spatial and metadata required as part of the approval conditions must be prepared in accordance with the *Guidelines for biological survey and mapped data (CoA 2018)* and the *Guide to providing maps and boundary data for EPBC Act projects (CoA 2021)* or as otherwise specified by the Commonwealth Minister for the Environment in writing.

11.2.1.3 Habitat management progress

The annual DCCEEW report must include:

- Results of quarterly site visits;
- Results of annual camera trapping program for threats and comparison with previous years results;
- Results of GgC and YbG targeted surveys (years 2, 4, 6, 8 and 10) and comparison with previous years data;
- Results and photos from habitat monitoring (years 2, 4, 6, 8 and 10) and comparison with previous years data;
- An assessment of the effectiveness of management actions including unsuccessful and successful management methods and any adaptive management used to achieve the management goals;
- An evaluation of the likelihood of the site meeting the agreed management commitments by the end of year 10 of the OMP; and
- Records of inductions signed and completed by each of Barwon Water’s and subcontractor staff members entering and/or undertaking work on site, the training they received, who delivered the training, content of the training and actions completed to prevent weed seeds/propagules and Cinnamon Fungus entering the site.

Annual Reports must provide enough detail in the form of written comments and supporting evidence that an assessor can easily determine the completion of/progress against the OMP management commitments.

If any management actions included in the OMP, or any reporting requirements outlined above are not completed, then the landowner must provide documented justification and evidence in the relevant reporting year.

The landowner must outline any adaptive management including remedial actions and updated management methods they will be undertaking to meet the agreed management commitments.

Barwon Water must notify DCCEEW of any environmental incidents and emergencies within two days of becoming aware of the issue.

The approval holder must notify DCCEEW electronically within two business days of becoming aware of any incident and/or potential non-compliance and/or actual non compliance with conditions or commitments made in the plan. Details must be included in the annual report with details of how these have been addressed. Failure to comply can incur a range of criminal and civil penalties which are set out in DCCEEW enforcement policy available at: [Compliance and enforcement policy_ EPBC Act](#).

11.2.2 NVOR requirements

The annual report for NVOR must include completion of the Annual Report Monitoring template prepared for the site by Abzeco (Attachment 3).

11.2.2.1 Threat management progress

The Annual Report Monitoring template must include the information collected during quarterly landowner inspections:

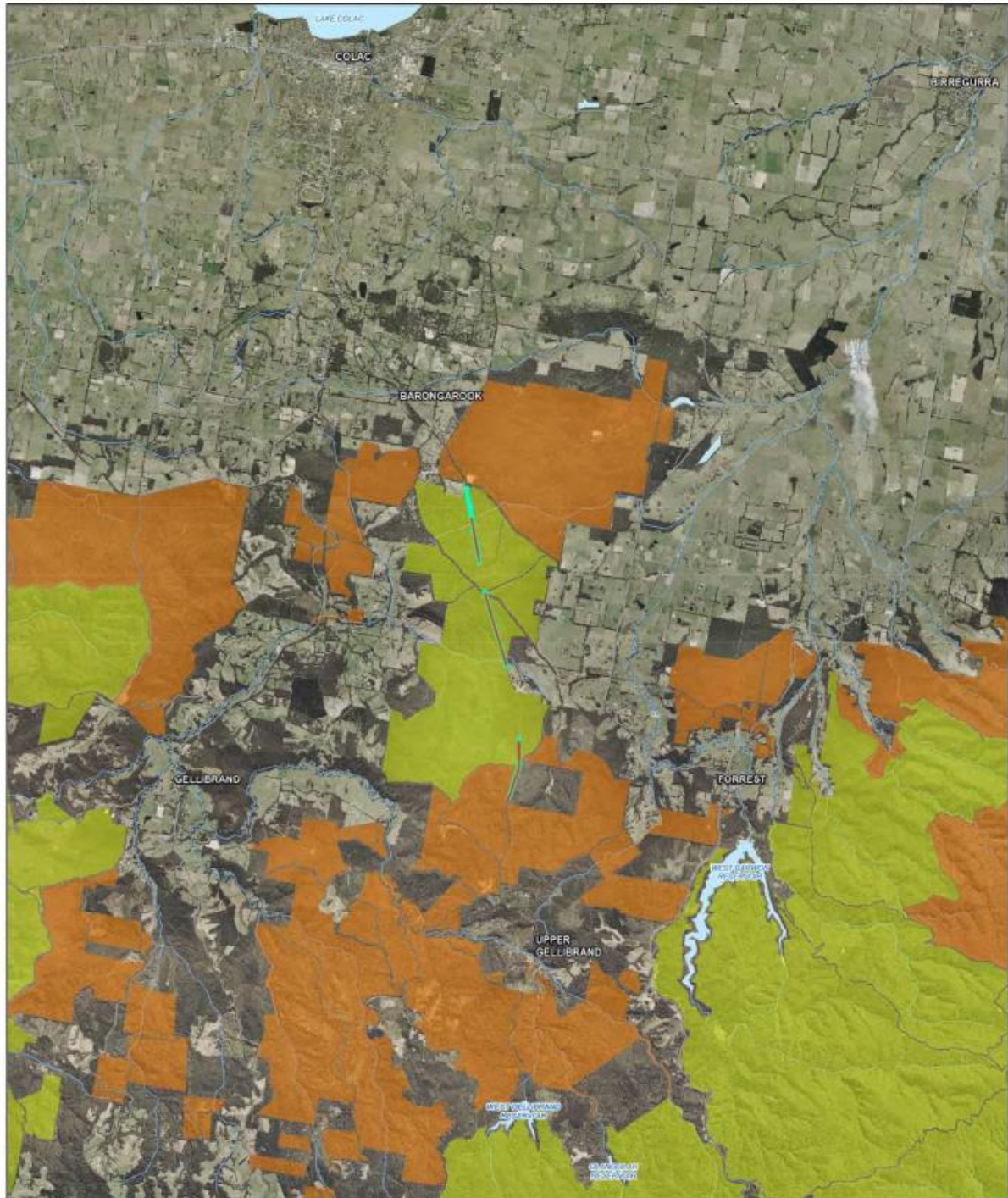
- A detailed list of all quarterly monitoring observations;
- Details (description and photos) of management actions and timing of each action undertaken during the reporting year;
- Evidence of management actions (e.g. photos, receipts itemising works completed, and work logs); and
- Clear, labelled photos from threat photo monitoring points including photo bearing, GPS waypoints of photo locations and description.

The completed NVOR annual report can be included in the DCCEEW annual report submission to inform the progress of site management.

12. Maintaining habitat and native vegetation quality and condition in perpetuity

This OMP outlines management commitments and targets required to be achieved at the site to improve the quality and condition of native vegetation and GgC and YbG habitat. At the completion of the 10-year active management period, the landowner is required to continue to undertake management to maintain native vegetation quality and condition and GgC and YbG habitat at the site. This includes maintaining native vegetation condition and targets required to be achieved at the end of the 10-year management period and all ongoing management commitments and targets in perpetuity.

Figure 1: Location of proposed project action impacting Gang-gang Cockatoo and Yellow-bellied Glider (EPBC Referral No. 2022/09343) - Barwon Water Colac Otway (water supply) Pipeline project (source: GHD).



- LEGEND**
- Freeway & highway
 - Major road
 - River
 - Water body
 - Construction Corridor
 - Great Otway National Park
 - Otway Forest Park
 - Proposed pipeline alignment

Paper Size A3
 0 0.5 1 2 3
 Kilometers
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 54



Barwon Water
 Colac Pipeline Upgrade

Job Number 31-37032
 Revision C
 Date 31 May 2023

EPBC Number: 2022/09343

Regional context of the proposed action **Figure 1**

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© 2023. Whilst every care has been taken to prepare this map, GHD and/or its consultants make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason. Data source: Creative Commons

Figure 2: Location of proposed project action area and offset site for Gang-gang Cockatoo and Yellow-bellied Glider (EPBC Referral No. 2022/09343) - Barwon Water Colac Otway (water supply) Pipeline project (source: GHD).

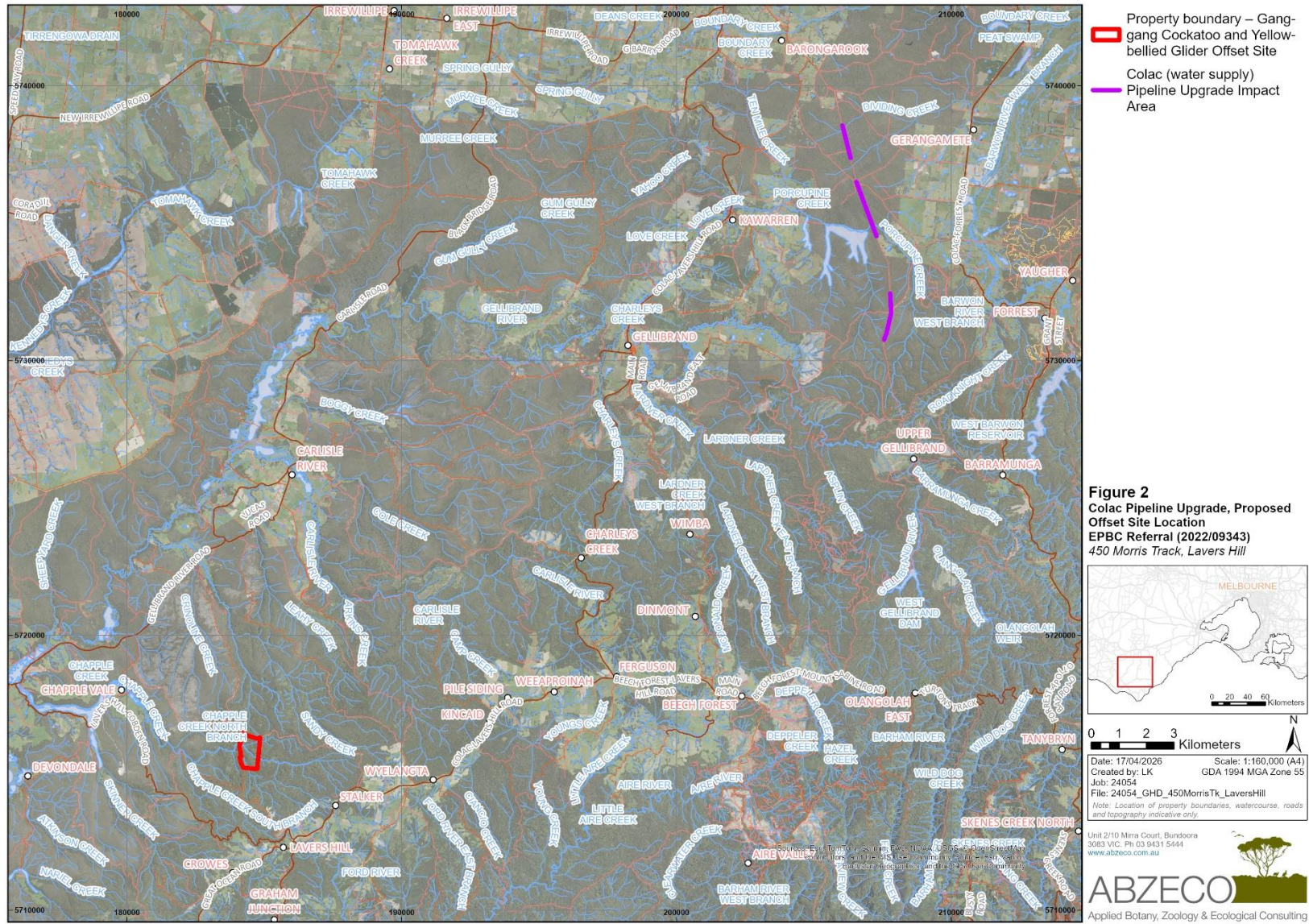


Figure 3: EVC mapping and large eucalypt tree sample transects - proposed offset site for Gang-gang Cockatoo and Yellow-bellied Glider, 450 Morris Track, Lavers Hill (June 2024)

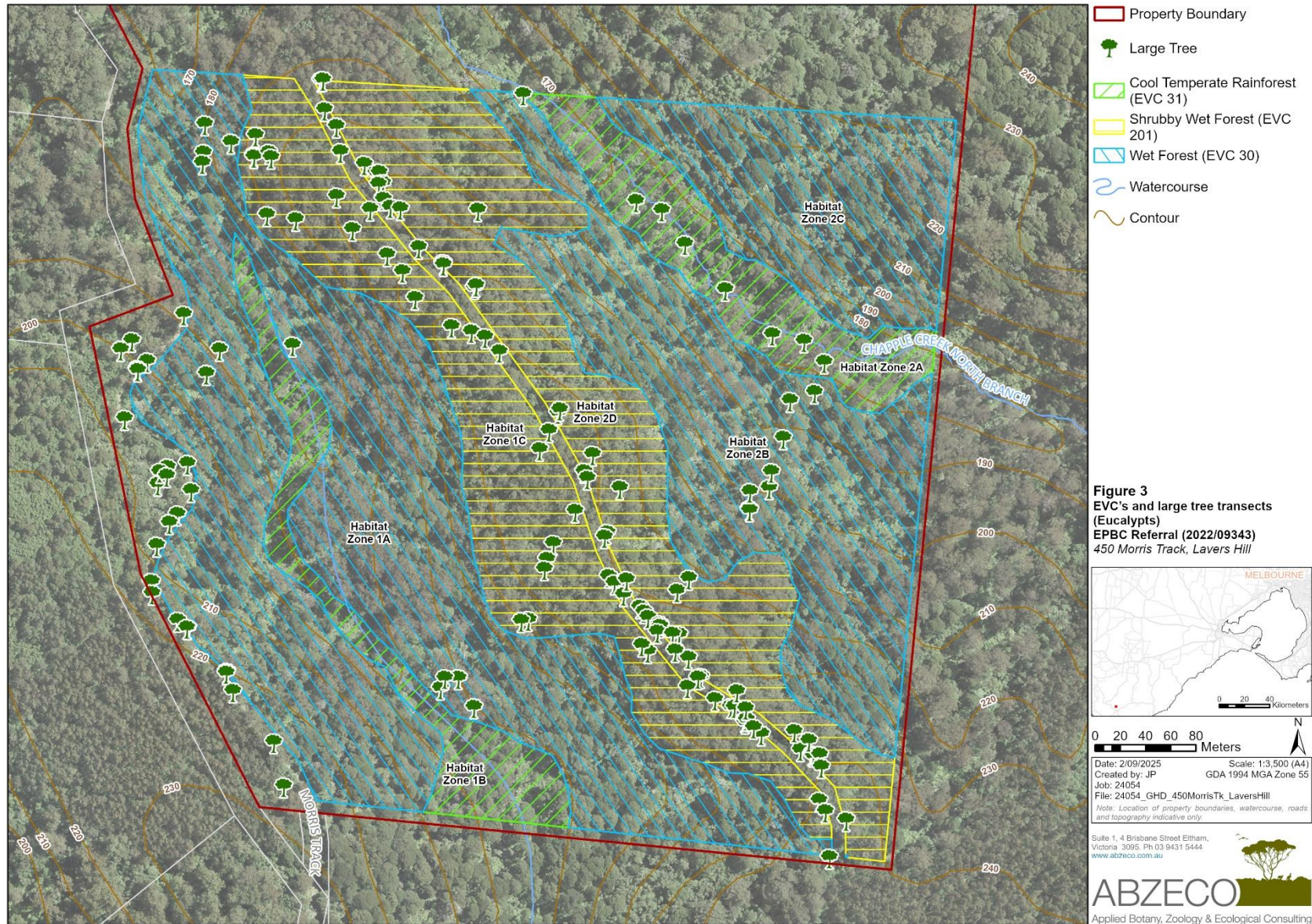
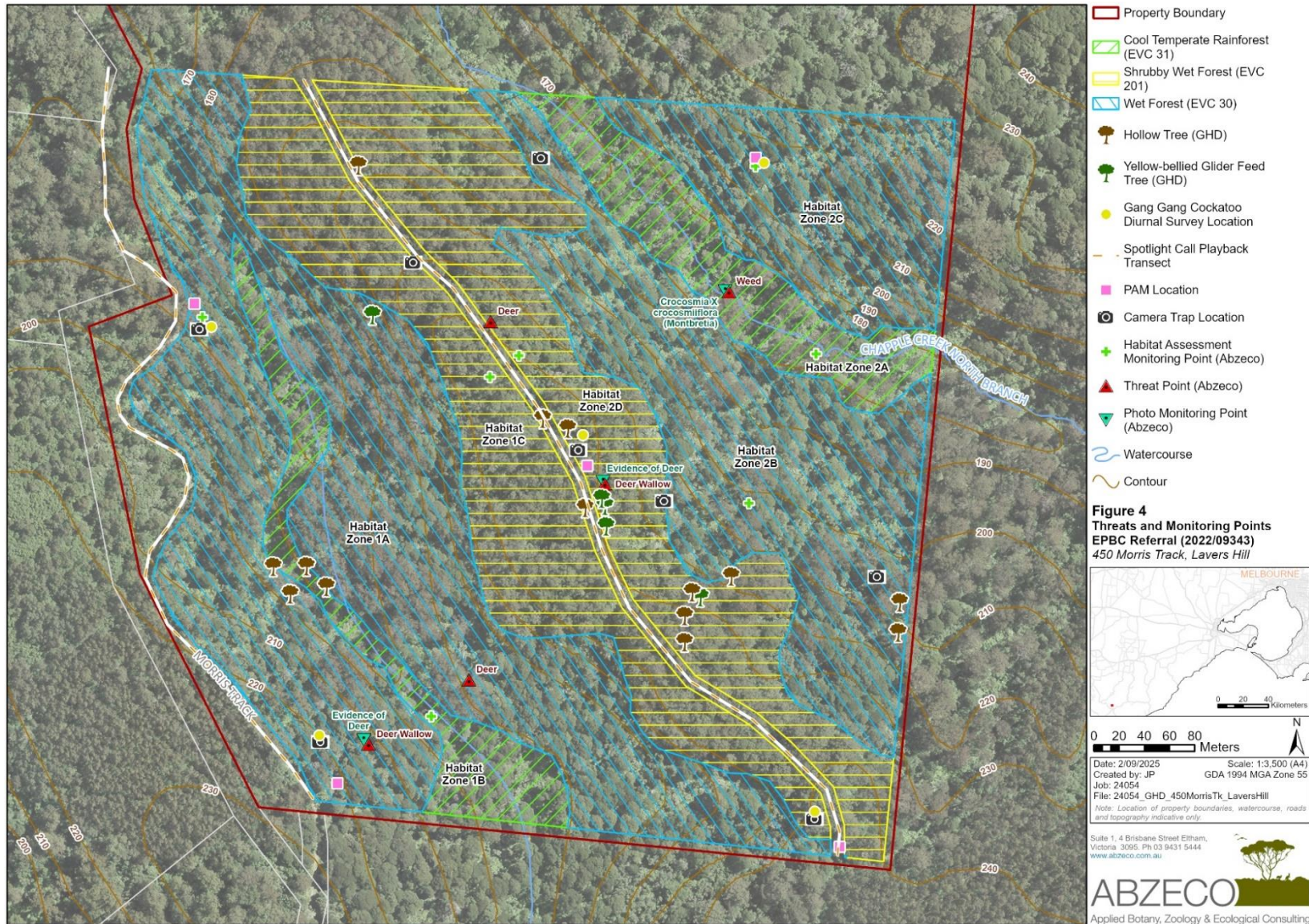


Figure 4: Identified threats and monitoring points - proposed offset site for Gang-gang Cockatoo and Yellow-bellied Glider, 450 Morris Track, Lavers Hill (June 2024)



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Appendix 1 Pen portraits of field ecologists and report authors

Louise Rodda - B.App.Sc (Env.Mgt) (Hons - Botany)

Senior Consultant Botanist/Ecologist

Louise has worked as a botanical consultant since 2010. During her career, Louise had developed extensive skills and experience in undertaking flora assessments including habitat hectare assessments, offset site assessments, native vegetation removal assessments, vegetation mapping, Index of Wetland Condition assessments, weed assessment and mapping, targeted flora and fauna surveys, biodiversity assessments in environments ranging from coastal communities to the alps and in between. Louise is very experienced in undertaking remote field work. She is familiar with the application of federal and state planning legislation and policies. Louise is also experienced in vegetation monitoring program design and implementation, data analysis, and reporting. Louise has written numerous management plans including offset site management plans for the establishment of Commonwealth and Victorian offset sites, weed management plans biodiversity management plans and salvage and translocation plans for threatened plants. Louise has also designed numerous offset site monitoring and reporting programs and conducted annual offset site monitoring and reporting. Louise has undertaken both small and large scale projects for public sector and private clients. She is a very experienced project manager having managed a variety of projects for public and private clients in both the environment industry and other industries.

David De Angelis – B.Sc. (BioSc) (Hons - Zoology)

Senior Consultant Zoologist/Ecologist

David is a consultant Ecologist with 17 years' experience in flora and fauna survey, ecological assessment and management. He has extensive experience in flora and fauna survey, habitat management and community education through involvement with Holmesglen Institute, La Trobe University's Wildlife Sanctuary, the Field Naturalists Club of Victoria and Frogs Victoria. While with Abzeco, David has worked on a wide range of habitat types and produced numerous reports on land management, flora and fauna survey and Biodiversity Assessment. He is a specialist in the conservation and management of reptiles and frogs, having surveyed for several threatened species including the Growling Grass Frog, Southern Toadlet, Brown Toadlet, Southern Barred Frog, Sloane's Froglet, Eared Worm-lizard, Striped Legless Lizard, Eastern Hooded Scaly-foot, Victorian Grassland Earless Dragon, Swamp Skink, Tussock Skink and Glossy Grass Skink. He also has experience surveying for other threatened species including Spot-tailed Quoll, Brush-tailed Phascogale, Greater Glider, Yellow-bellied Glider, Southern Brown Bandicoot, Broad-toothed Rat, New Holland Mouse, listed woodland birds and forest owls, Gang-gang Cockatoo, Golden Sun Moth, Eltham Copper Butterfly, Matted Flax-lily, Spiny Rice-flower, a variety of threatened orchids and other listed flora. Through these projects David has developed valuable experience with a range of fauna monitoring techniques including radio tracking, remote acoustic recording, camera trapping, Elliott and cage trapping, funnel and pitfall trapping, harp trapping, artificial shelter surveys, call-playback, spotlighting and mark-recapture.

Matthew Lee – B.Sc., (Botany major)

Field botanist

Matt has 5 years experience in the environmental sector and excels as a field botanist, specialising in the plants and ecology of south-eastern Australia. He possesses a diverse skill set that encompasses both land management (field crew), botanical fieldwork and consulting. Notably, he has authored and assisted with the production of technical reports including flora and fauna assessments and habitat hectare reports, land management plans and bushfire management statements. He has also participated in vegetation monitoring projects across the state. Matt is proficient in data analysis.

Appendix 2: Vascular plant species, southern half of 450 Morris Track, Lavers Hill (June 2024)

Key:

EPBC = Listed under the *Environment Protection and Biodiversity Conservation Act 1999*

- CR - Critically Endangered
- EN - Endangered
- VU - Vulnerable

Weed = plant taxa introduced into Victoria or Australia

- * - introduced species
- # - invasive native species outside natural range (non-indigenous)

FFG = Listed under the *Flora and Fauna Guarantee Act 1988*

- cr - Critically Endangered
- en - Endangered
- vu - Vulnerable

CaLP = Noxious weeds listed under the *Conservation and Land Protection Act 1994*

- C - Regionally Controlled
- R - Restricted

P – Sensitive to Cinnamon Fungus *Phytophthora cinnamomi* (DEC 2005)

Status	Scientific name	Common name	EPBC	FFG	CaLP
	<i>Acacia leprosa</i> var. <i>magna</i>	Otway Wattle			
	<i>Acacia melanoxylon</i> P	Blackwood			
	<i>Acacia verticillata</i> subsp. <i>verticillata</i> P	Prickly Moses			
	<i>Acaena novae-zelandiae</i>	Bidgee-widgee			
*	<i>Agrostis</i> s.s. spp.	Bent			
	<i>Amyema</i> spp.	Mistletoe			
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass			
	<i>Asplenium gracillimum</i>	Mother Spleenwort			
	<i>Australina pusilla</i> subsp. <i>muelleri</i>	Shade Nettle			
	<i>Bedfordia arborescens</i>	Blanket Leaf			
	<i>Billardiera macrantha</i>	Purple Apple-berry			
	<i>Blechnum chambersii</i>	Lance Water-fern			
	<i>Blechnum nudum</i>	Fishbone Water-fern			
	<i>Blechnum wattsii</i> P	Hard Water-fern			
	<i>Callitriche</i> spp.	Water Starwort			
	<i>Calystegia marginata</i>	Forest Bindweed			
*	<i>Cardamine hirsuta</i> s.s.	Common Bitter-cress			
	<i>Carex appressa</i>	Tall Sedge			
	<i>Carex austrotanella</i>	Delicate Hook-sedge			
*	<i>Cirsium vulgare</i>	Spear Thistle			R
	<i>Clematis aristata</i>	Mountain Clematis			
	<i>Coprosma quadrifida</i>	Prickly Currant-bush			
	<i>Correa lawrenceana</i> var. <i>latrobeana</i>	Mountain Correa			
*	<i>Crococsmia X crocosmiiflora</i>	Montbretia			
	<i>Cyathea australis</i>	Rough Tree-fern			
*	<i>Dactylis glomerata</i>	Cocksfoot			
	<i>Dianella tasmanica</i> P	Tasman Flax-lily			
	<i>Dicksonia antarctica</i>	Soft Tree-fern			
	<i>Eucalyptus brookeriana</i>	Brooker's Gum		en	
	<i>Eucalyptus obliqua</i> P	Messmate Stringybark			
	<i>Eucalyptus radiata</i> subsp. <i>radiata</i> P	Narrow-leaf Peppermint			
	<i>Eucalyptus regnans</i> P	Mountain Ash			
	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i> P	Manna Gum			
	<i>Euchiton japonicus</i> s.s.	Creeping Cudweed			
	<i>Geranium potentilloides</i>	Soft Crane's-bill			
	<i>Gonocarpus humilis</i>	Shade Raspwort			

Status	Scientific name	Common name	EPBC	FFG	CaLP
	<i>Goodenia ovata</i> P	Hop Goodenia			
	<i>Gynatrix pulchella</i> s.s.	Hemp Bush			
	<i>Hackelia latifolia</i>	Forest Hound's-tongue			
	<i>Hedycarya angustifolia</i>	Austral Mulberry			
	<i>Histiopteris incisa</i>	Bat's Wing Fern			
*	<i>Holcus lanatus</i>	Yorkshire Fog			
	<i>Hydrocotyle hirta</i> P	Hairy Pennywort			
	<i>Hymenophyllum australe</i>	Austral Filmy-fern			
	<i>Hymenophyllum rarum</i>	Narrow Filmy-fern			
	<i>Hymenophyllum</i> spp.	Filmy Fern			
*	<i>Hypochaeris radicata</i>	Flatweed			
	<i>Isolepis</i> spp.	Club Sedge			
	<i>Lepidosperma elatius</i>	Tall Sword-sedge			
	<i>Leptospermum continentale</i> P	Prickly Tea-tree			
	<i>Lobelia pedunculata</i> s.s.	Matted Pratia			
	<i>Lomatia fraseri</i>	Tree Lomatia			
	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass			
	<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	Kangaroo Fern			
	<i>Nematolepis squamea</i> subsp. <i>squamea</i>	Satinwood		vu	
	<i>Notelaea ligustrina</i>	Privet Mock-olive			
	<i>Olearia argophylla</i>	Musk Daisy-bush			
	<i>Olearia lirata</i>	Snowy Daisy-bush			
	<i>Oxalis</i> spp.	Wood Sorrel			
	<i>Ozothamnus ferrugineus</i>	Tree Everlasting			
	<i>Pellaea falcata</i> s.s.	Sickle Fern			
	<i>Pimelea axiflora</i> subsp. <i>axiflora</i>	Bootlace Bush			
	<i>Pittosporum bicolor</i>	Banyalla			
	<i>Polystichum proliferum</i>	Mother Shield-fern			
	<i>Pomaderris aspera</i>	Hazel Pomaderris			
	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush			
	<i>Prostanthera melissifolia</i>	Balm Mint-bush			
*	<i>Prunella vulgaris</i>	Self-heal			
	<i>Pteridium esculentum</i> subsp. <i>esculentum</i> P	Austral Bracken			
	<i>Pterostylis pedunculata</i>	Maroonhood			
	<i>Ranunculus scapiger</i>	Hairy Buttercup			
*	<i>Rubus anglocandicans</i>	Common Blackberry			C
	<i>Rumex bidens</i>	Mud Dock			
	<i>Rumohra adiantiformis</i>	Leathery Shield-fern			
	<i>Sambucus gaudichaudiana</i>	White Elderberry			
	<i>Sarcochilus australis</i>	Butterfly Orchid			
	<i>Senecio minimus</i>	Shrubby Fireweed			
	<i>Sigesbeckia orientalis</i> subsp. <i>orientalis</i>	Indian Weed			
	<i>Solanum laciniatum</i>	Large Kangaroo Apple			
	<i>Stellaria flaccida</i>	Forest Starwort			
	<i>Tetrarrhena juncea</i> P	Forest Wire-grass			
	<i>Urtica incisa</i>	Scrub Nettle			
	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet			

Appendix 3: Habitat Hectare vegetation quality and condition scores – 450 Morris Track, Lavers Hill (southern half of property), June 2024

See the *Vegetation Quality Assessment Manual – Guidelines for applying the Habitat Hectare scoring method version 1.3* (DSE 2004) for method details.

Legend:

HZ = Habitat Zone

EVC = Ecological Vegetation Class

EN = Endangered

OP = Otway Ranges bioregion

WF = Wet Forest

LC = Least Concern

CTR = Cool Temperate Rainforest

ha = hectare

SWF = Shrubby Wet Forest

Habitat Zone		HZ1A	HZ1B	HZ1C	HZ2A	HZ2B	HZ2C	HZ2D	
Bioregion		OR	OR	OR	OR	OR	OR	OR	
EVC Name		WF	CTR	SWF	CTR	WF	WF	SWF	
EVC Number		30	31	201	31	30	30	201	
EVC Conservation Status		LC	EN	LC	EN	LC	LC	LC	
		Maximum Score							
Site Condition	Large Old Trees	10	6	7	9	6	6	8	
	Canopy Cover	5	4	4	4	2	4	5	
	Lack of Weeds	15	13	15	13	15	13	13	
	Understorey	25	20	20	20	25	20	20	
	Recruitment	10	6	6	6	6	6	6	
	Organic Matter	5	5	5	5	5	5	5	
	Logs	5	4	5	5	5	4	5	
	Total site score	75	58	62	82	64	58	62	
Landscape Value		25	20	20	20	18	20	20	
Habitat Points		100	78	82	82	84	78	82	
Habitat Score		/100	0.78	0.82	0.82	0.84	0.78	0.82	
Total Area (ha) [^]			11.3623	1.5909	4.0020	1.9902	5.7744	3.0367	5.2535

[^] The total area of the offset site is 33.01 (rounded to 4 decimal places)

Attachment 1: Department of Climate Change, Energy, the Environment and Water – Approval conditions, Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)

- Department of Climate Change, Energy, the Environment and Water EPBC Approval Conditions - Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)' dated 17 January 2024,
- Variation of conditions attached to approval –dated 26 July 2024
- Correction Notice for variation of conditions - dated 22 November 2024

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Australian Government
**Department of Climate Change, Energy,
the Environment and Water**

Notification of approval

Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)

This decision is made under section 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Note that section 134(1A) of the EPBC Act applies to this approval. That provision provides, in general terms, that if the approval holder authorises another person to undertake any part of the Action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such conditions.

Approved Action

person to whom the approval is granted (approval holder)	BARWON REGION WATER CORPORATION
ABN of approval holder	86 348 316 514
Proposed Action	To upgrade approximately 4.3 km of an existing pipeline to provide the bulk water supply to Colac, Victoria [See EPBC Act referral 2022/09343 subject to the variation of the proposed Action accepted by the Minister under section 156B on 8 September 2023.

Approval decision

Proposed decision	My decision on whether or not to approve the taking of the Action for the purposes of the controlling provision for the Action is as follows.	
	Controlling Provision	Decision
	Listed threatened species and communities (section 18 and section 18A)	Approved
period for which the proposed approval has effect	This approval has effect until 17 January 2039.	
Proposed conditions of approval	The approval is subject to conditions under the EPBC Act as set out in Annexure A.	

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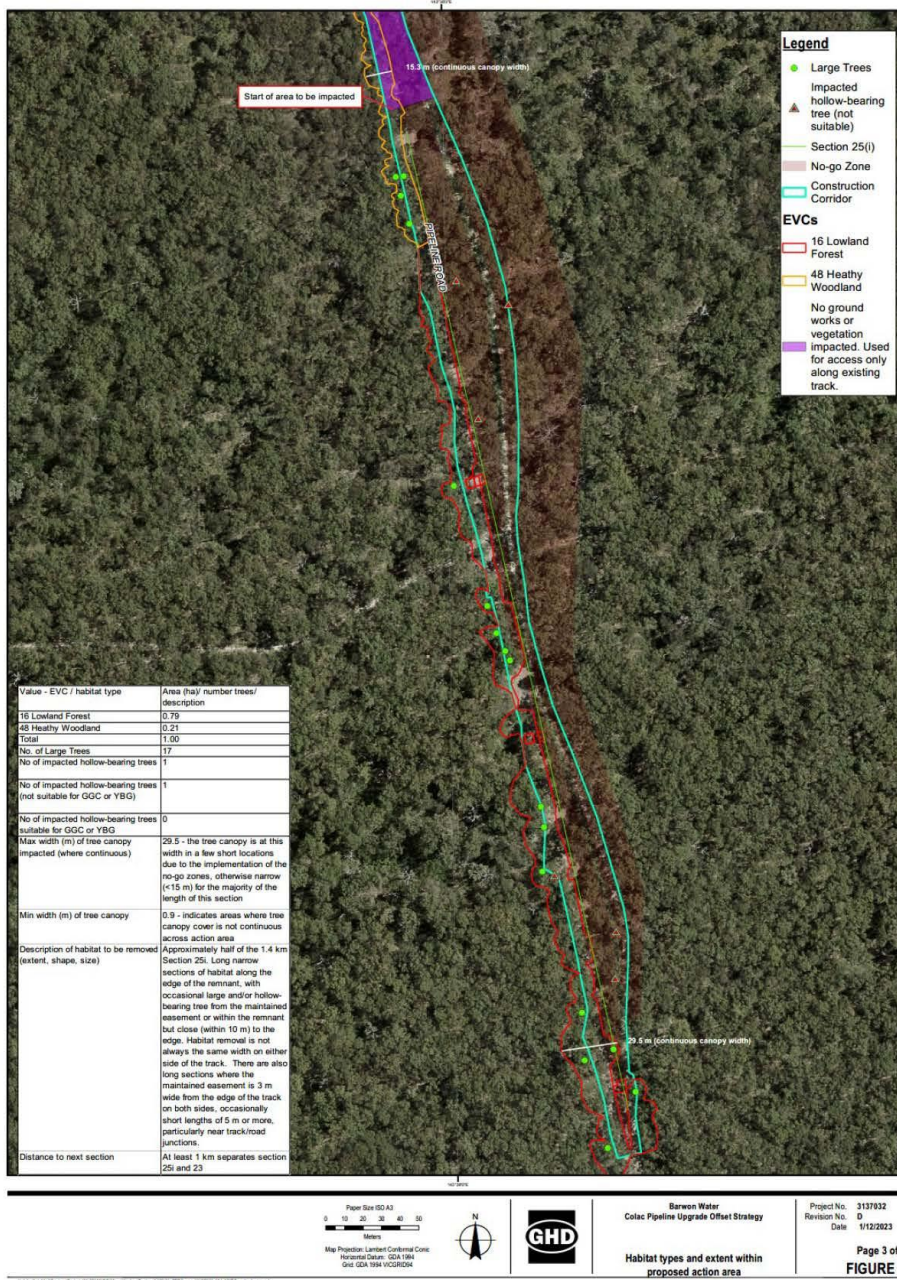



Figure 4: Map showing the end section of 25i (not impacted) and impact area of the start and end of section 25i of the Colac Pipeline Upgrade.

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Person authorised to make decision

name and position	Rachel Short Branch Head Environment Assessments (Vic and Tas) and Post Approvals
signature	
date of decision	17 January 2024

Annexure A

Note: Words appearing in **bold** have the meaning assigned to them at PART C – DEFINITIONS.

Part A – Operational Conditions

CLEARING LIMITS

- 1) To avoid and mitigate **harm to protected matters**, the approval holder must not undertake the Action outside the **project area**.
- 2) To avoid and minimise **harm to protected matters**, the approval holder must not **clear** more than:
 - a) 7.31 hectares (ha) of **Gang-gang Cockatoo habitat**
 - b) 5.07 ha of **Yellow-bellied Glider habitat**
 - c) 7.81 ha of **Long-nosed Potoroo habitat**.
- 3) To avoid and minimise impact to **Gang-gang Cockatoo** and **Yellow-bellied Glider** the approval holder must not **clear** more than 26 **potential hollow-bearing trees**.

CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

- 4) To mitigate **harm to protected matters** the approval holder must submit a Construction Environment Management Plan (CEMP) to the **department** for the **Minister's** approval. The approval holder must not **commence the Action** unless the **Minister** has approved the CEMP in writing. The approval holder must implement the CEMP approved by the **Minister** in writing until the expiry date of this approval.
- 5) By implementing the CEMP, the approval holder must achieve the following environmental objectives: prevent any avoidable **harm to protected matters** and mitigate unavoidable and accidental harm to **protected matters**.
- 6) The CEMP must be consistent with the **Environmental Management Plan Guidelines**, and must include:
 - a) Details of the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the plan refers.

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- b) A table of commitments made in the plan to achieve the environmental objectives, and a reference to exactly where these commitments are detailed in the plan.
- c) Commitments capable of ensuring that the environmental objectives are achieved.
- d) Reporting and review mechanisms to demonstrate compliance with the commitments made in the plan.
- e) An assessment of risks relating to achieving the environmental objectives and risk management strategies and/or mitigation measures that will be applied to address identified risks.
- f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.
- g) A monitoring program, which must include:
 - i) measurable performance indicators
 - ii) trigger values for corrective actions
 - iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators;
 - iv) proposed corrective actions if trigger values are reached.

OFFSETS

- 7) To compensate for the residual significant impact of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**, the approval holder must **secure the GGC and YBG Offset site and the LNP Offset site** within 6 months of the **commencement of the Action**. The approval holder must ensure the **GGC and YBG Offset site and the LNP Offset** remain **secured** at least until the expiry of this approval.
- 8) The approval holder must not **commence the Action** unless the **department** has advised in writing that it has accepted a memorandum of understanding (MoU) that commits the relevant parties to **secure the GGC and YBG Offset site and the LNP Offset site**.

Offset Management Plans

- 9) The approval holder must implement the **120 Ridge Road, Kawarren Offset Site Management Plan** until the expiry date of this approval. The approval holder must implement the **245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan** until the expiry date of this approval.

Part B – Administrative conditions

REVISION OF ACTION MANAGEMENT PLANS

- 10) The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** or as subsequently revised in accordance with the following conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.

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- 11) The approval holder may choose to revise an action management plan approved by the **Minister** under condition 4, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.
- 12) If the approval holder makes the choice under condition 11 to revise an action management plan without submitting it for approval, the approval holder must:
 - a) Notify the **department** electronically that the approved action management plan has been revised and provide the **department** with:
 - i) An electronic copy of the RAMP.
 - ii) An electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP.
 - iii) An explanation of the differences between the approved action management plan and the RAMP.
 - iv) The reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.
 - v) Written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 **business days** after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the **department**.
 - b) Subject to condition 14, implement the RAMP from the RAMP implementation date.
- 13) The approval holder may revoke its choice to implement a RAMP under condition 11 at any time by giving written notice to the **department**. If the approval holder revokes the choice under condition 11, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 11.
- 14) If the **Minister** notifies the approval holder that the **Minister** is satisfied that the taking of the Action in accordance with the RAMP would be likely to have a **new or increased impact**, then:
 - a) Condition 11 does not apply, or ceases to apply, in relation to the RAMP.
 - b) The approval holder must implement the action management plan specified by the **Minister** in the notice.
- 15) At the time of giving the notice under condition 14, the **Minister** may also notify that for a specified period of time, condition 11 does not apply for one or more specified action management plans.

Note: Conditions [11], [12], [13], [14] and [15] are not intended to limit the operation of section 143A of the **EPBC Act** which allows the approval holder to submit a revised action management plan, at any time, to the **Minister** for approval.

SUBMISSION AND PUBLICATION OF PLANS

- 16) The approval holder must submit all **plans** required by these conditions electronically to the **department**.
- 17) Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish the **plan** on the **website** within 15 **business days** of the date:

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- a) of this approval, if the version of the **plan** to be implemented is specified in these conditions, or
 - b) the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**, or
 - c) the **plan** is submitted to the **department** in accordance with a requirement of these conditions, if the **plan** does not require the approval of the **Minister**, or
 - d) the **plan** is approved by a state or territory government official as required under a state or territory government condition which must be complied with in accordance with these **EPBC Act** conditions.
- 18) The approval holder must keep all **plans** required by these conditions published on the **website** until the expiry date of this approval.
- 19) The approval holder is required to exclude or redact **sensitive ecological data** from **plans** published on the **website** or otherwise provided to a member of the public. If **sensitive ecological data** is excluded or redacted from a **plan**, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION

- 20) The approval holder must notify the **department** electronically of the date of **commencement of the Action**, within 5 **business days** following **commencement of the Action**.
- 21) The approval holder must not **Commence the Action** later than 5 years after the date of this approval decision.

COMPLIANCE RECORDS

- 22) The approval holder must maintain accurate and complete **compliance records**.
- 23) If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **department**, or by an independent auditor in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media.

- 24) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing.
- 25) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing.
- 26) The approval holder must 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 20 **business days** of each

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anniversary of the date of this approval decision or in accordance with the requirements of the **plans**.

ANNUAL COMPLIANCE REPORTING

- 27) The approval holder must prepare a **compliance report** for each 12-month period following the date of this approval decision (or as otherwise agreed to in writing by the **Minister**).
- 28) Each **compliance report** must be consistent with the *Annual Compliance Report Guidelines*, Commonwealth of Australia 2023.
- 29) Each **compliance report** must include:
 - a) Accurate and complete details of compliance and any non-compliance with the conditions and the **plans**, and any **incidents**.
 - b) One or more **shapefile** showing all **clearing of protected matters**, and/or their habitat, undertaken within the 12-month period at the end of which that **compliance report** is prepared.
 - c) A schedule of all **plans** in existence in relation to these conditions and accurate and complete details of how each **plan** is being implemented.
- 30) The approval holder must:
 - a) Publish each **compliance report** on the **website** within 60 **business days** following the end of the 12-month period for which that **compliance report** is required.
 - b) Notify the **department** electronically, within 5 **business days** of the date of publication that a **compliance report** has been published on the **website**.
 - c) Provide the weblink for the **compliance report** in the notification to the **department**.
 - d) Keep all published **compliance reports** required by these conditions on the **website** until the expiry date of this approval.
 - e) Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website** or otherwise provided to a member of the public.
 - f) If **sensitive ecological data** is excluded or redacted from the published version, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

Note: **Compliance reports** may be published on the **department's** website.

REPORTING NON-COMPLIANCE

- 31) The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**.
- 32) The approval holder must specify in the notification:
 - a) Any condition or commitment made in a **plan** which has been or may have been breached.
 - b) A short description of the **incident** and/or potential non-compliance and/or actual non-compliance.

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- c) The location (including co-ordinates), date and time of the **incident** and/or potential non-compliance and/or actual non-compliance.

Note: If the exact information cannot be provided, the approval holder must provide the best information available.

- 33) The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance, the details of that **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**. The approval holder must specify:
 - a) Any corrective action or investigation which the approval holder has already taken.
 - b) The potential impacts of the **incident** and/or non-compliance.
 - c) The method and timing of any corrective action that will be undertaken by the approval holder.

INDEPENDENT AUDIT

- 34) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every five-year period following the **commencement of the Action** until this approval expires (unless otherwise specified in writing by the **Minister**).
- 35) For each **independent audit**, the approval holder must:
 - a) Provide the name and qualifications of the nominated **independent** auditor, the draft audit criteria, and proposed timeframe for submitting the **audit report** to the **department** prior to commencing the **independent audit**.
 - b) Only commence the **independent audit** once the nominated **independent** auditor, audit criteria and timeframe for submitting the **audit report** have been approved in writing by the **department**.
 - c) Submit the **audit report** to the **department** for approval within the timeframe specified and approved in writing by the **department**.
 - d) Publish each **audit report** on the **website** within 15 **business days** of the date of the **department's** approval of the **audit report**.
 - e) Keep every **audit report** published on the **website** until this approval expires.
- 36) Each **audit report** must report for the five-year period preceding that audit report.
- 37) Each **audit report** must be completed to the satisfaction of the **Minister** and be consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

COMPLETION OF THE ACTION

- 38) The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.
- 39) Within 20 **business days** after the **completion of the Action**, and, in any event, before this approval expires, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**. The approval holder must submit any spatial data that comprises **completion data** as a **shapefile**.

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Part C – Definitions

In these conditions any bolded use of a word or term refers to the below definition of that word or term:

120 Ridge Road, Kawarren Offset Site Management Plan means the document titled *Offset Management Plan: 120 Ridge Road, Kawarren*, Version 6, 31 August 2023 or a revised version approved by the **Minister** in writing.

245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan means the document titled *245 Distillery Creek Road, Aireys Inlet Environment Protection & Biodiversity Conservation Act 1999 (2022/09343) Long-nosed Potoroo Potorous tridactylus tridactylus (South-East Mainland) Offset Management Plan*, Version 1.3, 1 September 2023 or a revised version approved by the **Minister** in writing.

Audit report means a written report of compliance and fulfilment of the conditions attached to this approval, objectively evaluated against the audit criteria approved by the **department**.

Business day means a day that is not a Saturday, a Sunday or a public holiday in Victoria.

Clear, cleared, clearing means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation.

Commence the Action or Commencement of the Action means the date on which the first instance of any on-site Clearing, Construction or other physical activity associated with the Action is undertaken, but does not include minor physical disturbance necessary to:

- a) Undertake pre-clearance surveys or monitoring programs.
- b) Install signage and/or temporary fencing to prevent unapproved use of the **Action area**, so long as the signage and/or temporary fencing is located where it does not **harm** any **protected matter**.
- c) Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.
- d) Install temporary site facilities for persons undertaking pre-commencement activities so long as these facilities are located where they do not **harm** any **protected matter**.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met.

Completion of the Action means the date on which all activities associated with this approval have permanently ceased and/or been completed.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval (including compliance with

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commitments made in **plans**) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.

Compliance report means a written report of compliance with, and fulfilment of, the conditions attached to the approval.

Construction means:

- a) the clearing of approximately 10 m wide area along the length of the construction corridor with the possibly clearing of potential habitat trees for Gang-gang Cockatoos and Yellow-bellied Glider,
- b) the excavation of an 1.2-4 m wide open cut trench alongside the existing pipeline.
- c) the laying of a 600 mm diameter (nominal) pipeline to be installed via open cut trenching, with short sections of 250 to 375 mm diameter (nominal) pipeline at the connection points to existing pipelines within the open cut trenching and the refilling of the trench.

Construction does not include the installation of temporary no-go fences and signage.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

Environmental Management Plan Guidelines means the *Environmental Management Plan Guidelines*, Commonwealth of Australia 2014.

Environmental Offsets Policy means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*, Commonwealth of Australia 2012.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Gang-gang Cockatoo means the **EPBC Act** listed species *Callocephalon fimbriatum*.

Gang-gang Cockatoo habitat means foraging, roosting and/or connected habitat as described in the *Approved Conservation Advice for Callocephalon fimbriatum (Gang-gang Cockatoo)* dated 2 March 2022 or later updated version.

GGC and YBG Offset site means the area represented in Attachment 2 by the zone enclosed by the green dotted line within the solid mauve line representing the property boundary.

Harm means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action.

Incident means any event which has the potential to, or does, **harm** any **protected matter**.

Independent means a person or firm who does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder's staff, representatives, or associated persons.

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*Other than for the purpose of undertaking the role for which an independent person is required

Independent audit means an audit conducted by an **independent** and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

Long-nosed Potoroo habitat means habitat as described in the *Approved Conservation Advice for Potorous tridactylus trisulcatus (southern long-nosed potoroo)*, dated 2 March 2022 or later updated version.

LNP Offset site means the area at 245 Distillery Creek Road, Aireys Inlet represented in Attachment 3 by the zone enclosed by the turquoise dotted line within the solid purple line representing the property boundary.

Long-nosed Potoroo means the **EPBC Act** listed species *Potorous tridactylus trisulcatus*.

Minister means the Australian Government Minister administering the **EPBC Act**, including any delegate thereof.

Monitoring data means the data required to be recorded under the conditions of this approval.

New or increased impact means any direct or indirect increase in the impacts of an Action, an increase to the likelihood of an impact occurring, a reduction to the monitoring or mitigation measures for a **protected matter**, and/or a change to the nature or management of an environmental offset as outlined in the *Guidance on 'new or increased impact' relating to changes to approved management plans under EPBC Act environmental approvals*, Commonwealth of Australia 2017.

Plan means any action management plan or strategy that the approval holder is required by these conditions to implement.

Potential hollow-bearing trees means hollow-bearing trees discussed in either of the conservation advices for **Gang-gang Cockatoo habitat** or **Yellow-bellied Glider habitat**.

Project area means the location of the Action, represented in Attachment 1 by the areas enclosed by the aqua lines designated 'Construction Corridor' in the legend.

Protected matter means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.

Secure or secured means to provide enduring conservation protection on the title of land under Section 69 of the *Conservation, Forests and Lands Act 1987* (Vic), or another enduring protection

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mechanism agreed to in writing by the **department**, to provide protection for the site against development incompatible with conservation.

Sensitive ecological data means data as defined in the *Sensitive Ecological Data – Access and Management Policy V1.0*, Commonwealth of Australia 2016.

Shapefile means location and attribute information about the Action provided in an Esri shapefile format containing:

- a) '.shp', '.shx', '.dbf' files,
- b) a '.prj' file which specifies the projection or geographic coordinate system used, and
- c) an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Suitably qualified expert (for the purpose of undertaking environmental surveys) means a person who has relevant professional qualifications and at least 3 years of work experience designing and implementing surveys for **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo** and can give an authoritative assessment and advice on the presence of Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo using relevant protocols, standards, methods and/or literature.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Yellow-bellied Glider habitat means foraging, potential denning and/or breeding habitat as described in the *Approved Conservation Advice for Petaurus australis australis (yellow-bellied glider (south-eastern))*, dated 2 March 2022 or later updated version.

Yellow-bellied Glider means the **EPBC Act** listed species *Petaurus australis australis*.

Attachments

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Attachment 1: Maps showing location of proposed Colac Pipeline Upgrade sections.

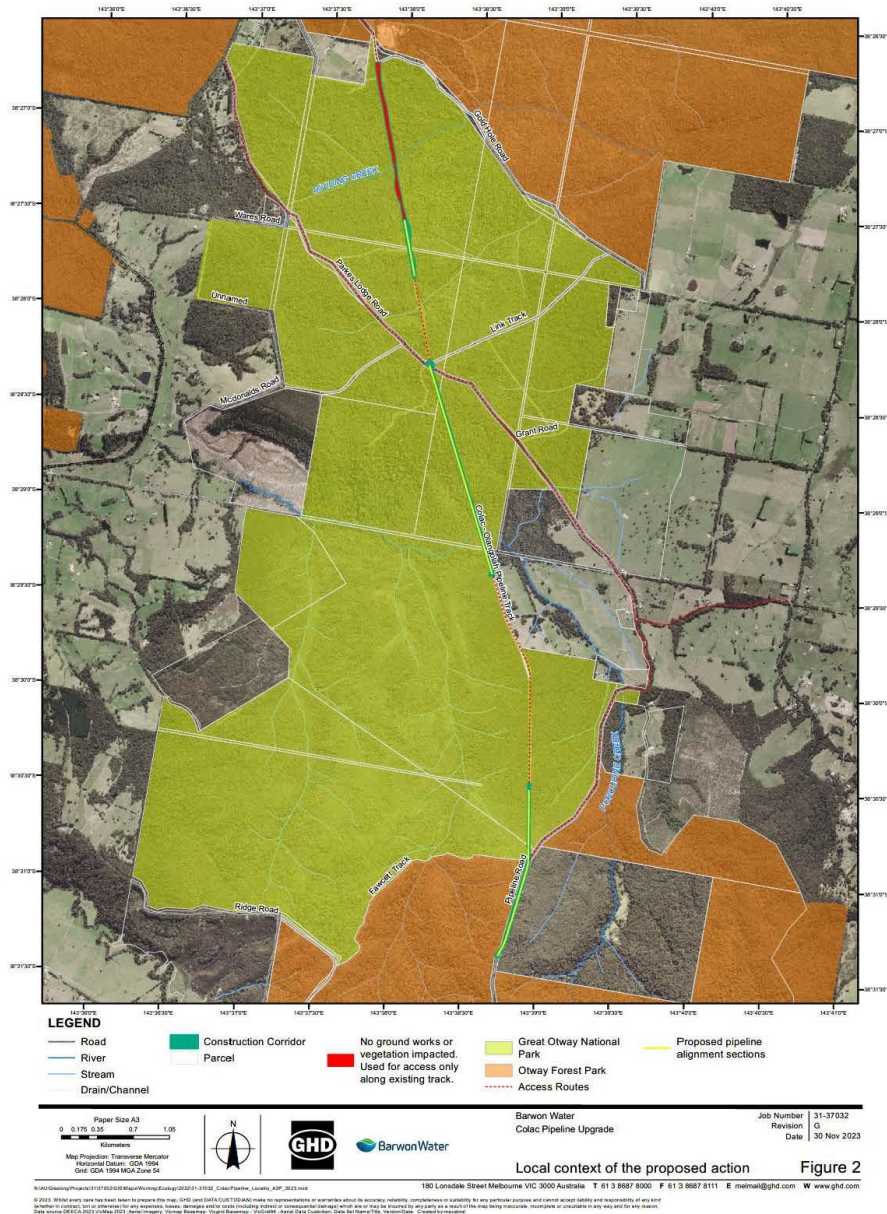


Figure 1: Overall map showing location of proposed Colac Pipeline Upgrade sections.

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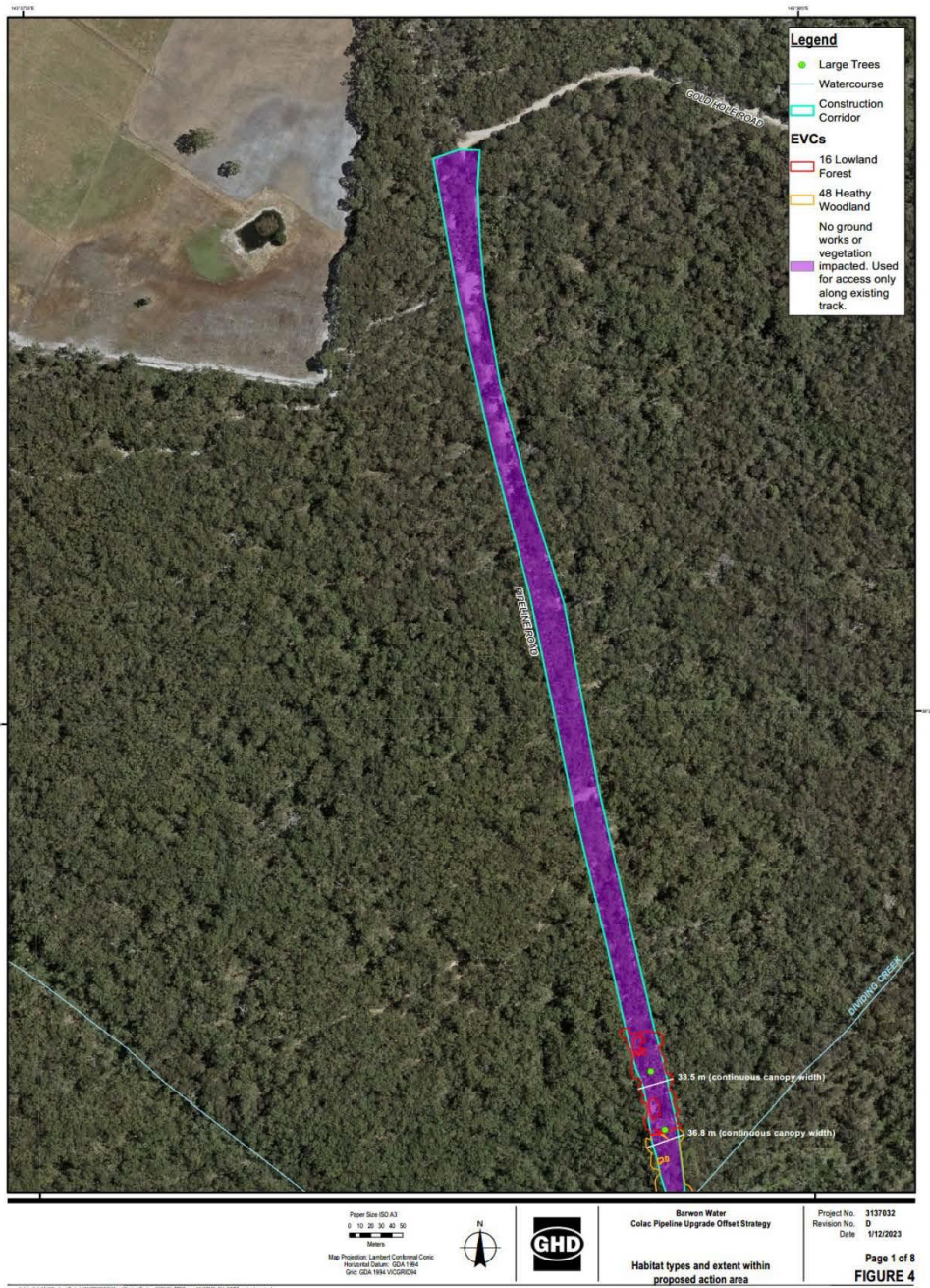


Figure 2 Map showing start of section 25i (not impacted).

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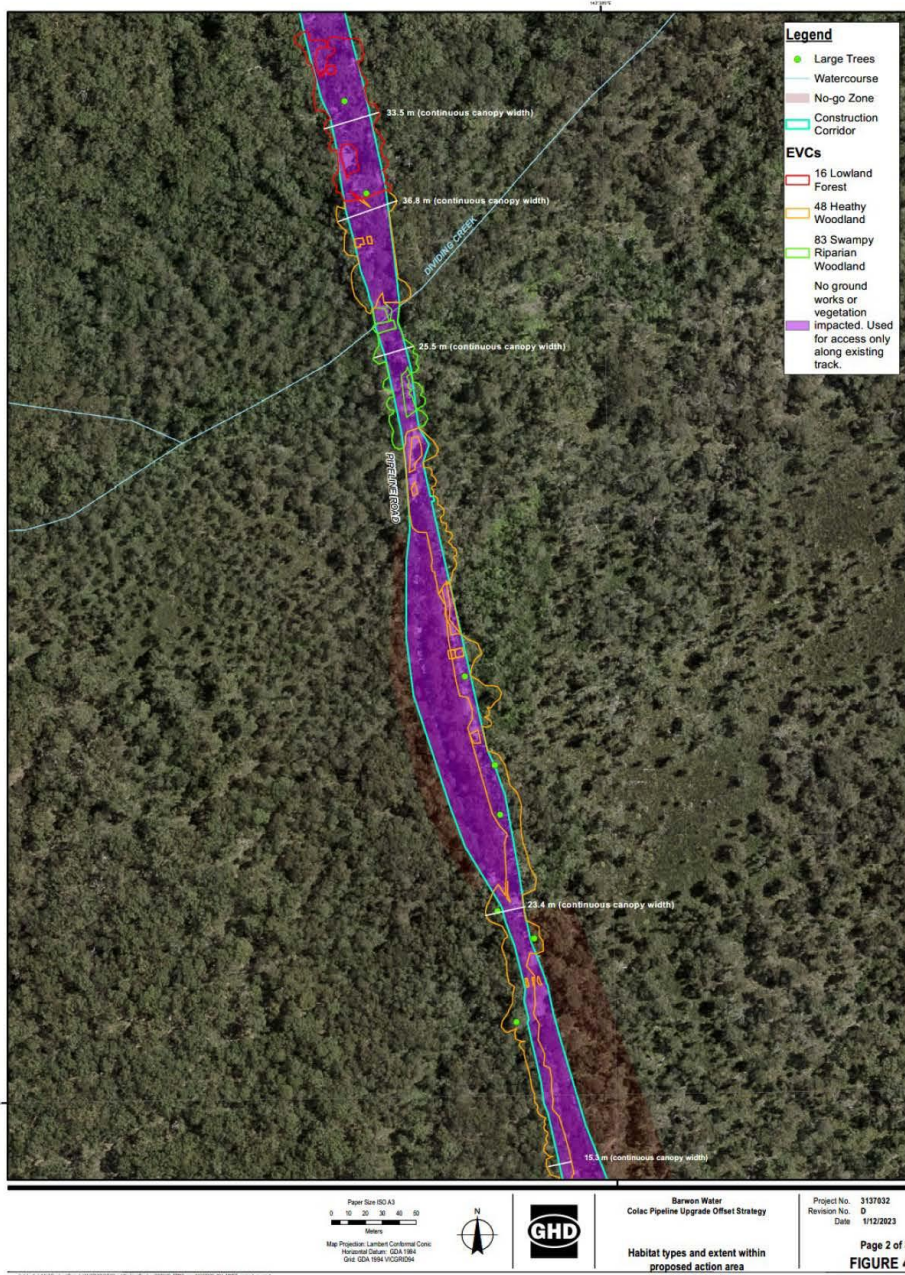


Figure 3: Map showing middle section of 25i of Colac Pipeline Upgrade (not impacted).

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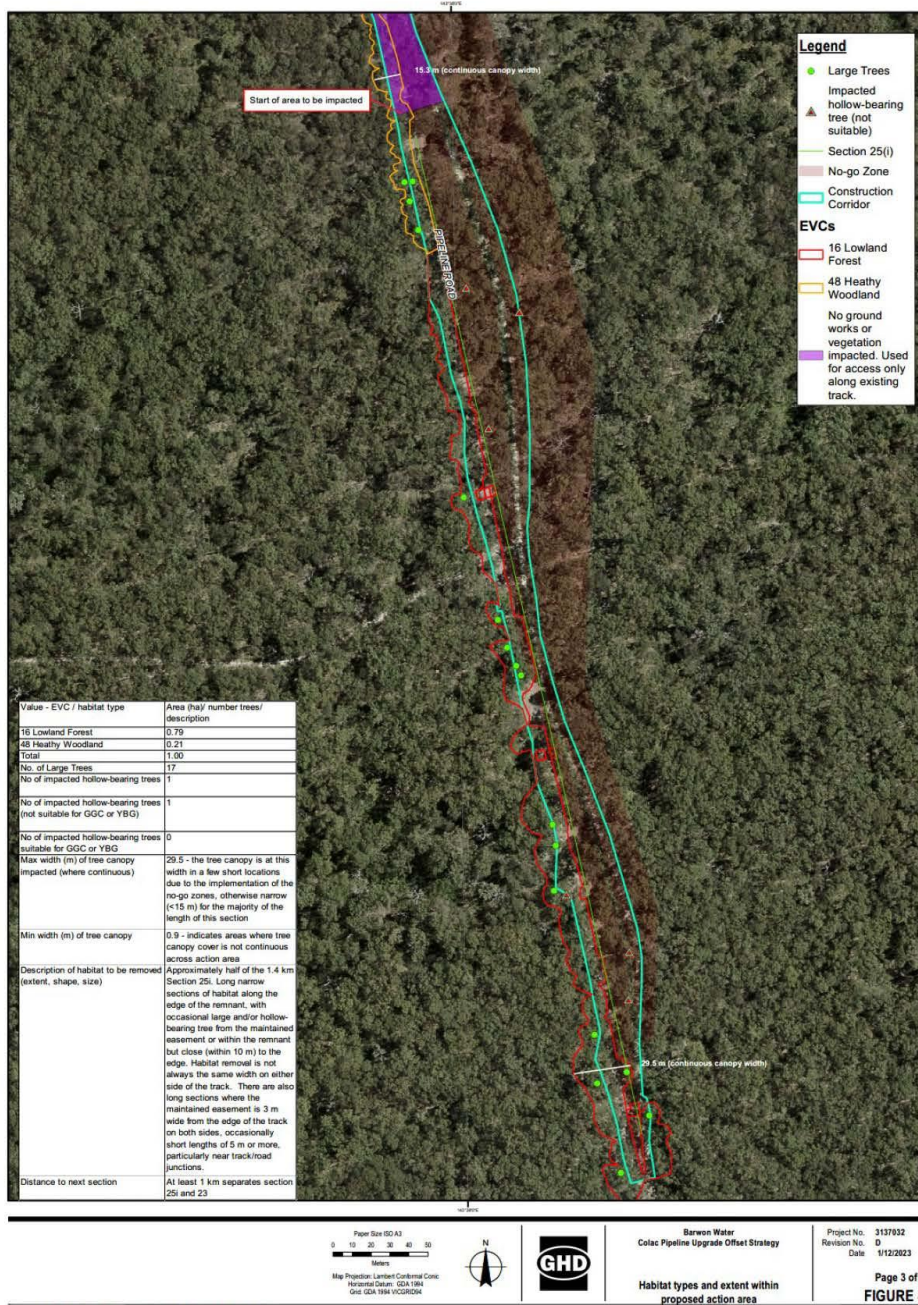


Figure 4: Map showing the end section of 25i (not impacted) and impact area of the start and end of section 25i of the Colac Pipeline Upgrade.

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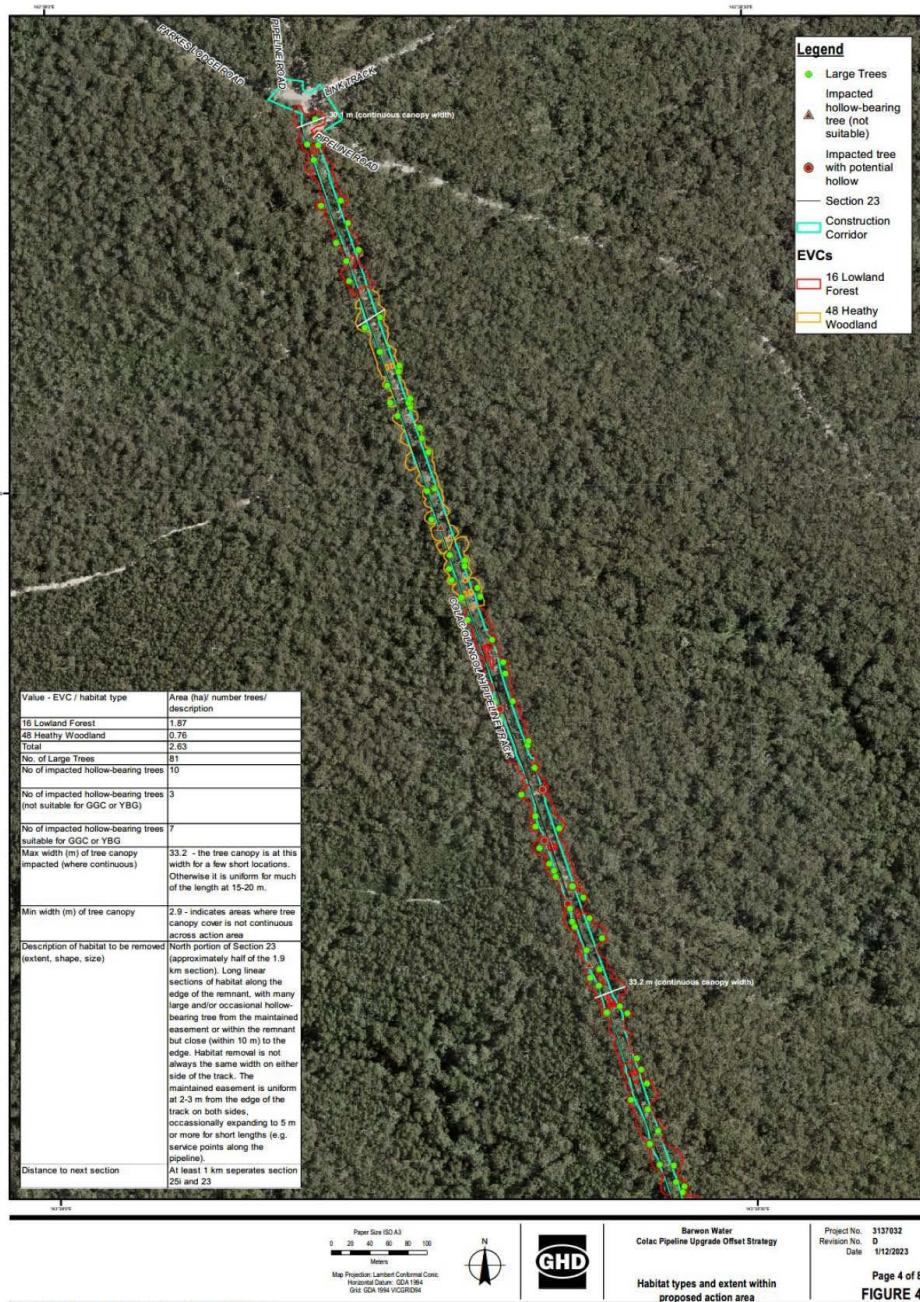


Figure 5: Map showing the impact area of the start of section 23 of the Colac Pipeline Upgrade.

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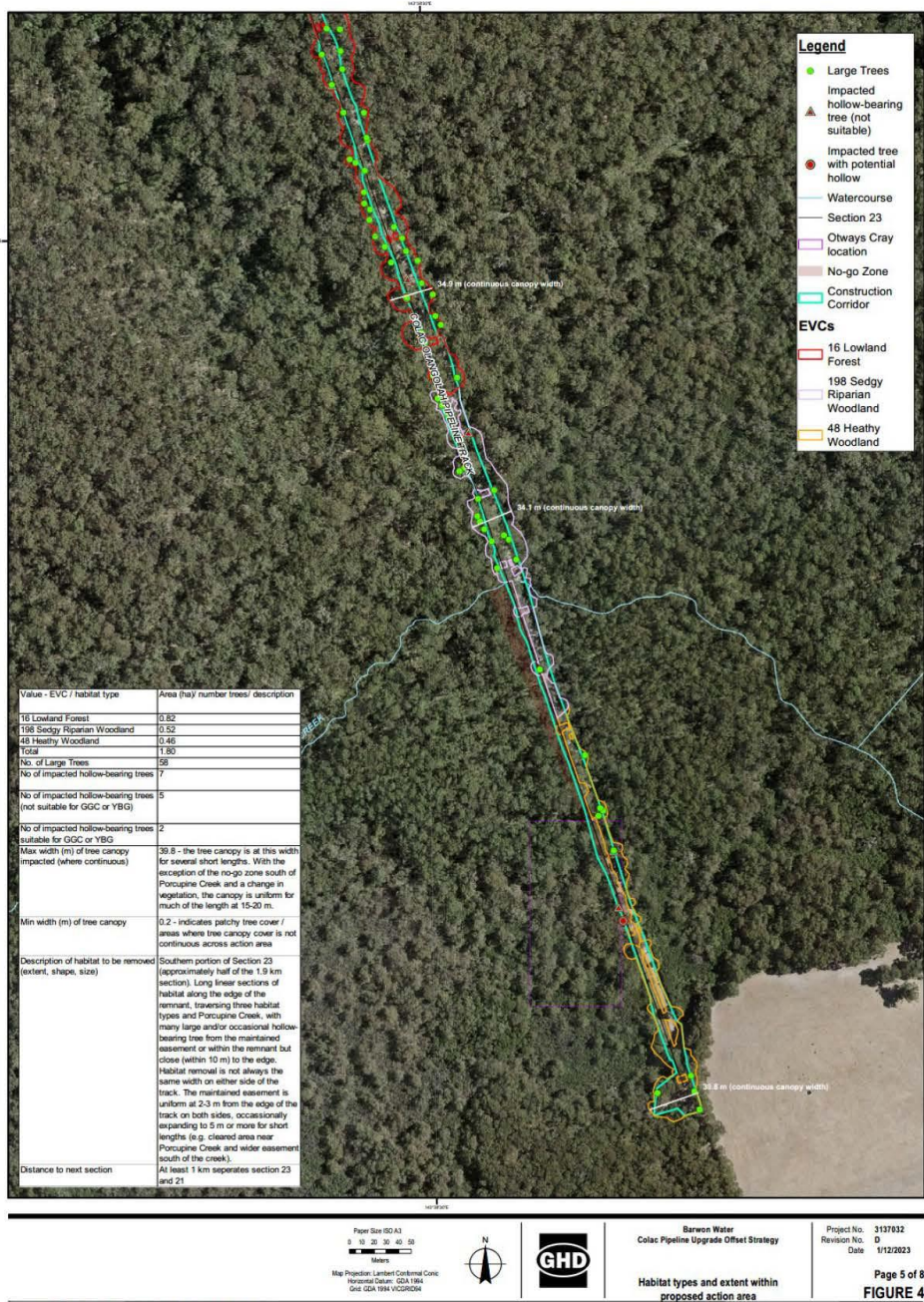


Figure 6: Map showing the impact area of the end section 23 of the Colac Pipeline Upgrade.

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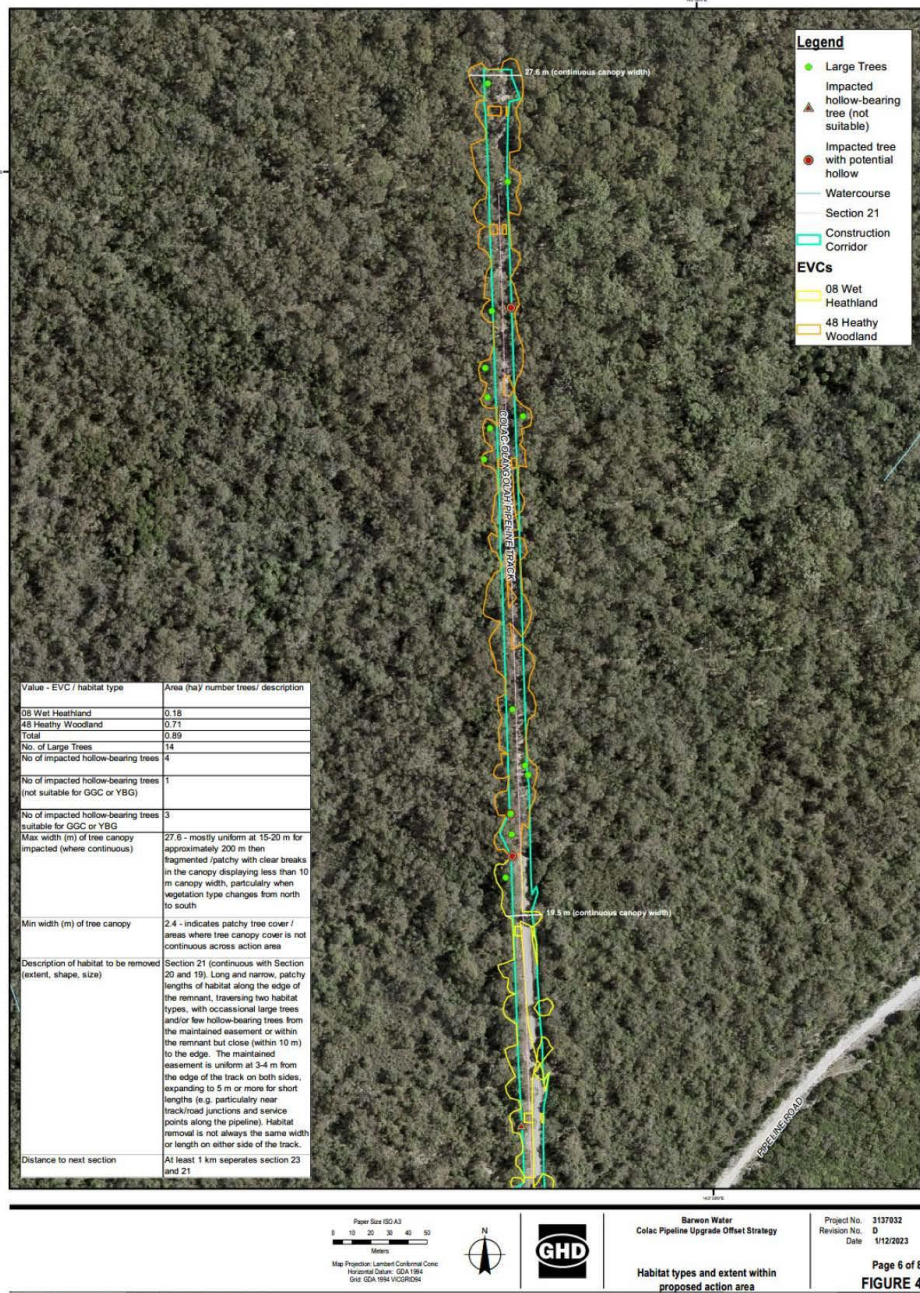


Figure 7: Map showing the impact area of the start of impact from section 21 of the Colac Pipeline Upgrade.

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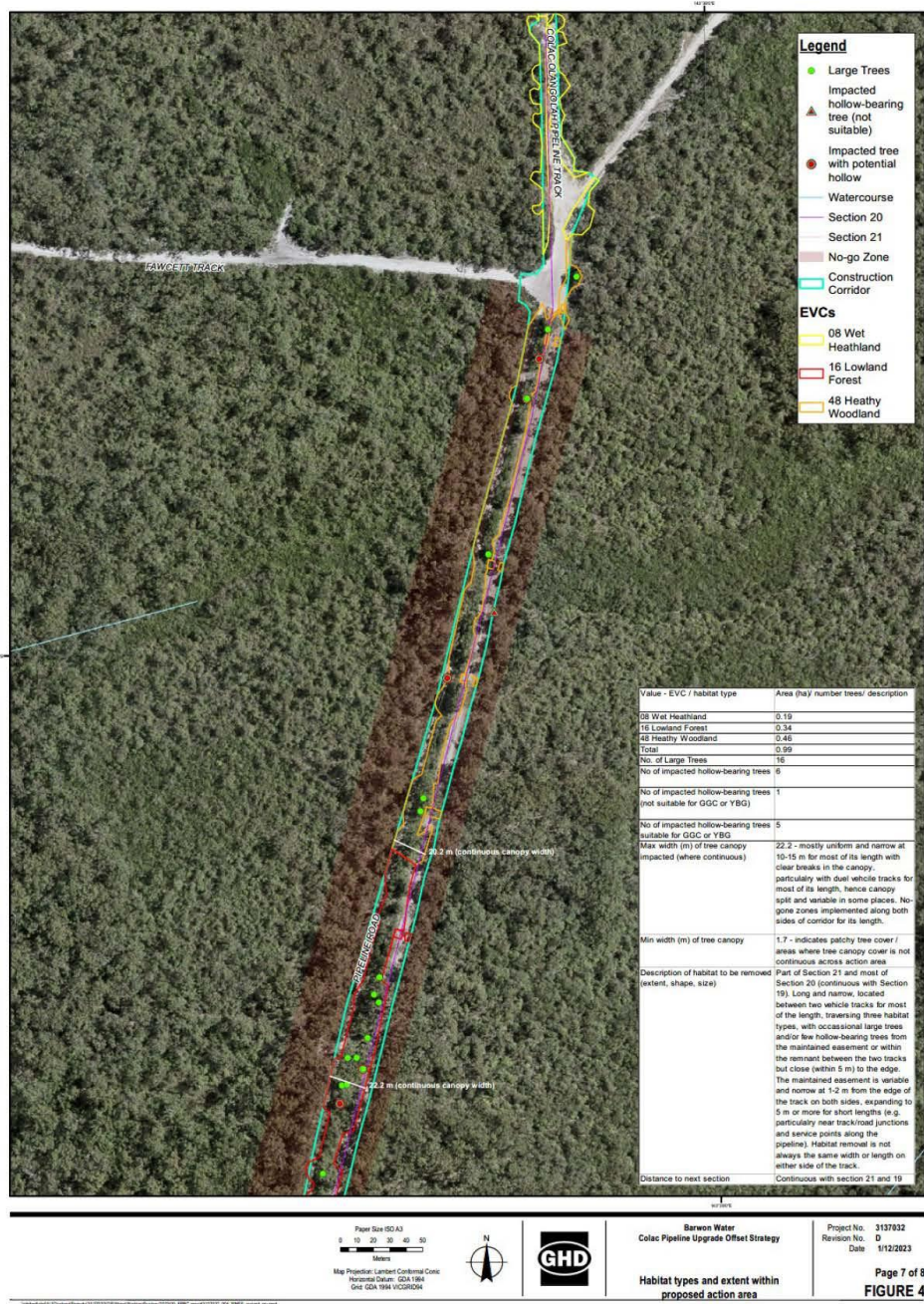


Figure 8: Map showing impact area of the end of section 21 and section 20 of the Colac Pipeline Upgrade.

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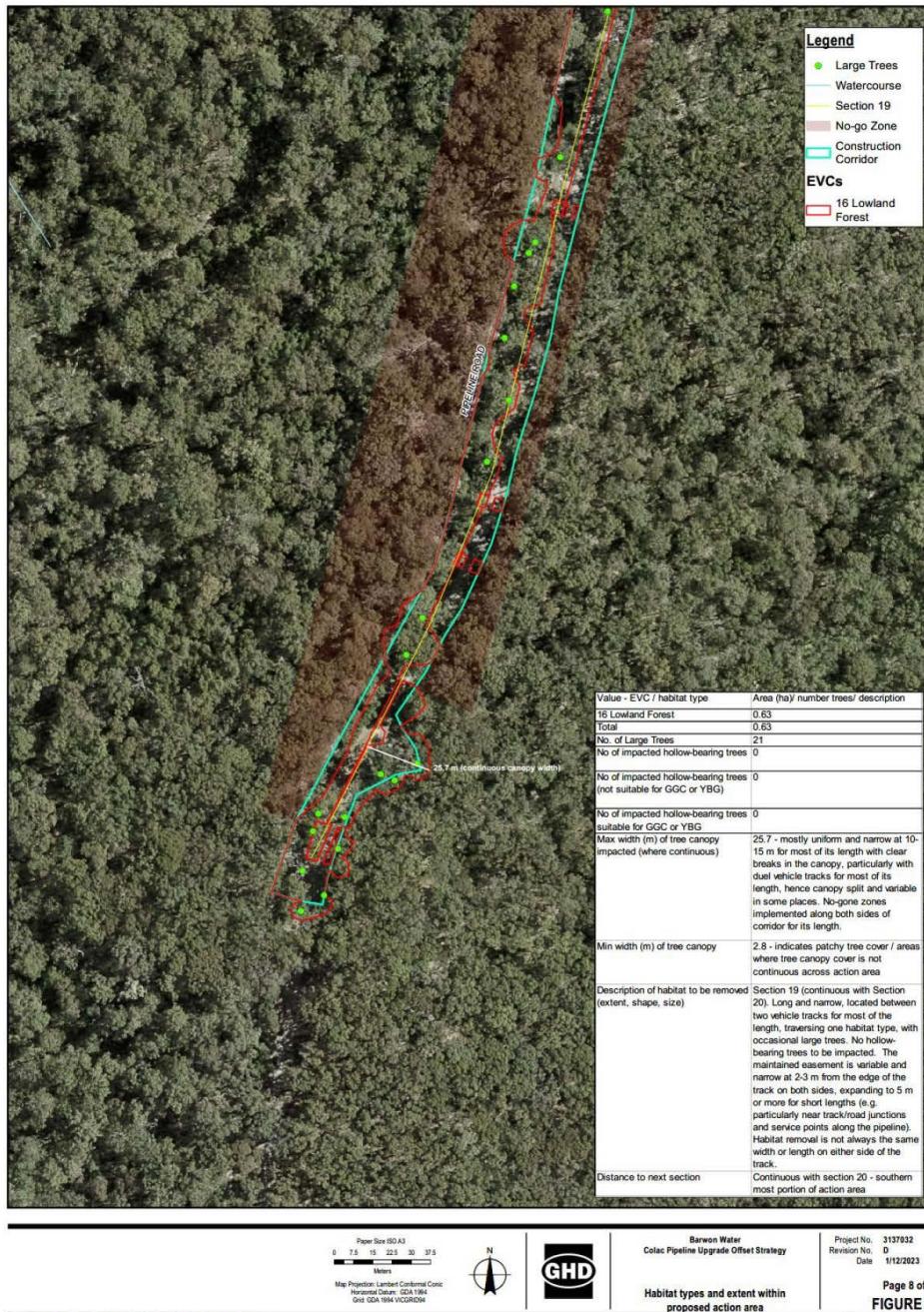


Figure 9: Map showing impact area of section 19 of the Colac Pipeline Upgrade.

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Attachment 2: Offset site for Gang-gang Cockatoo and Yellow-bellied Glider

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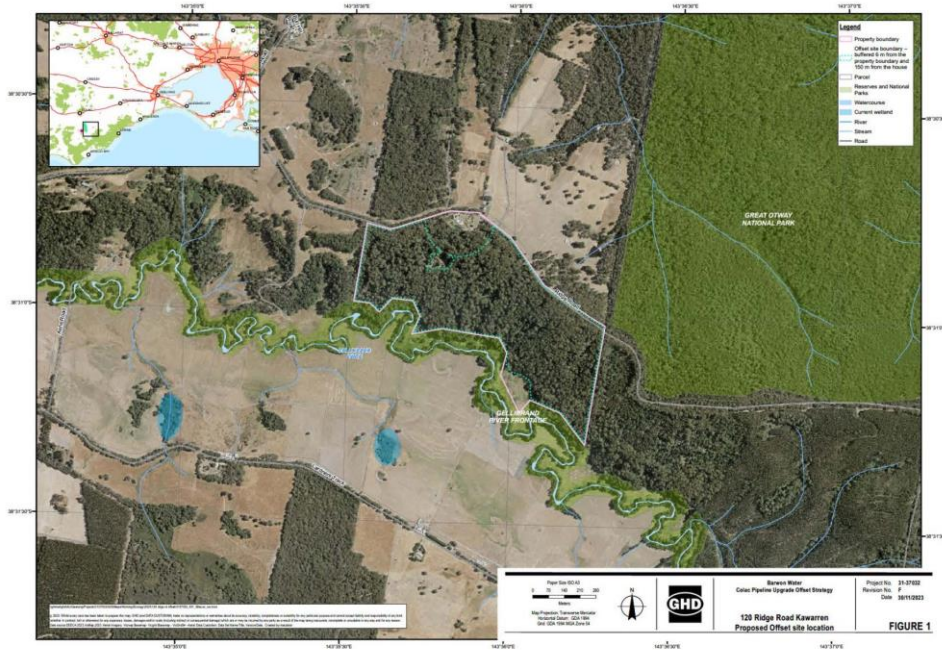


Figure 10: Map showing location of offset site for Gang-gang Cockatoo and Yellow-bellied Glider

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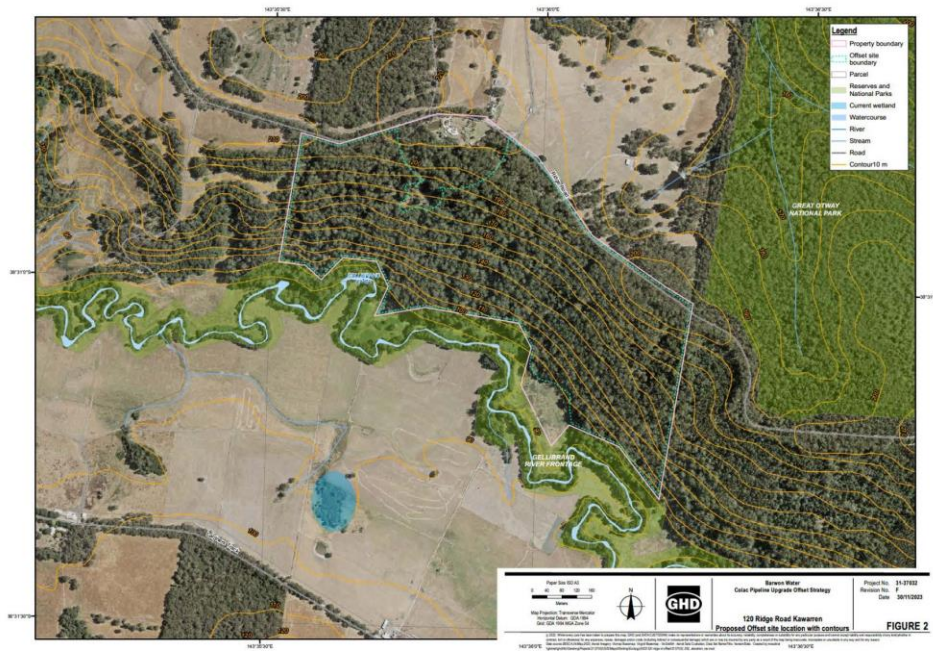


Figure 11: Map showing detailed view of the offset site for the Gang-gang Cockatoo and the Yellow-bellied Glider.

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Attachment 3: Offset site for Long-nosed Potoroo

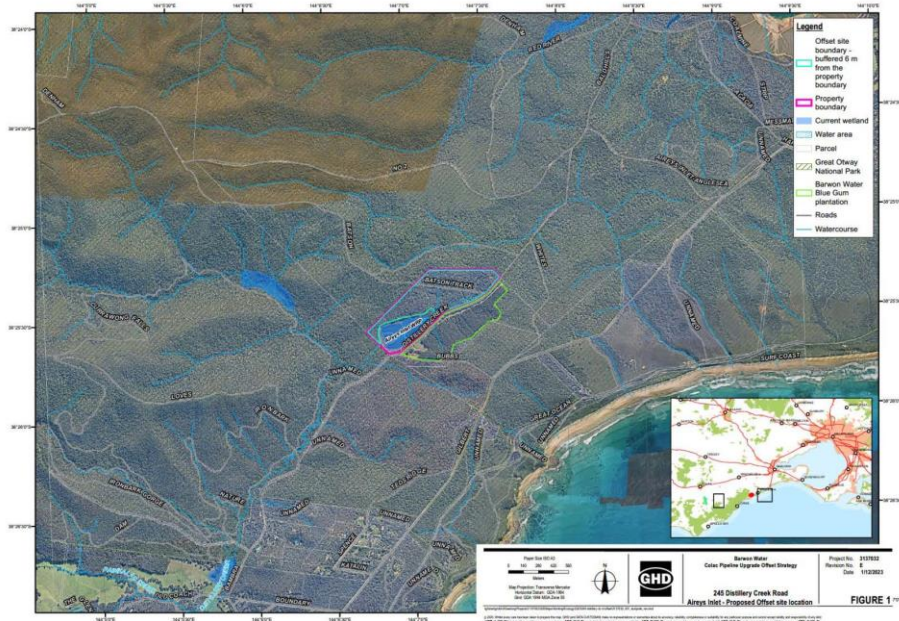


Figure 12: Map showing location of offset site for Long-nosed Potoroo.

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Figure 13: Map showing detailed view of the offset site for the Long-nosed Potoroo.

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Variation of conditions attached to approval

Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

approval holder	BARWON REGION WATER CORPORATION ABN: 86 348 316 514
approved action	To upgrade approximately 4.3 km of an existing pipeline to provide the bulk water supply to Colac, Victoria. See EPBC Act referral 2022/09343 subject to the variation of the proposed Action accepted by the Minister under section 156B on 8 September 2023

Variation

variation of conditions attached to approval	The variation is: Delete conditions 7, 8 and 9 attached to the approval and substitute with the conditions specified in the table below. Add the definitions of <i>Habitat quality</i> , <i>Independent auditor</i> , <i>SMART</i> and <i>Suitably qualified ecologist</i> specified in the table below. Revoke the definitions of <i>120 Ridge Road, Kawarren Offset Site Management Plan</i> , <i>245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan</i> , <i>GGC and YBG Offset site</i> , <i>LNP Offset site</i> , <i>Independent</i> , <i>Suitably qualified expert</i> and <i>Suitably qualified person</i> . Delete the definition of <i>Independent audit</i> and substitute with the definition specified in the table below. Revoke <u>Attachment 2: Offset site for Gang-gang Cockatoo and Yellow-bellied Glider</u> and <u>Attachment 3: Offset site for Long-nosed Potoroo</u> .
date of effect	This variation has effect on the date this instrument is signed.

Person authorised to make decision

name and position	Rachel Short Branch Head
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Environment Assessments (Vic and Tas) and Post Approvals

signature



date of decision

26 July 2024

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Annexure A

Note: Words appearing in **bold** have the meaning assigned to them at PART C – DEFINITIONS.

Date of decision	Conditions attached to approval
Part A – Operational Conditions	
CLEARING LIMITS	
<i>Original dated 17/01/2024</i>	1) To avoid and mitigate harm to protected matters , the approval holder must not undertake the Action outside the project area .
<i>Original dated 17/01/2024</i>	2) To avoid and minimise harm to protected matters , the approval holder must not clear more than: <ul style="list-style-type: none"> a) 7.31 hectares (ha) of Gang-gang Cockatoo habitat b) 5.07 ha of Yellow-bellied Glider habitat c) 7.81 ha of Long-nosed Potoroo habitat.
<i>Original dated 17/01/2024</i>	3) To avoid and minimise impact to Gang-gang Cockatoo and Yellow-bellied Glider the approval holder must not clear more than 26 potential hollow-bearing trees .
CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN	
<i>Original dated 17/01/2024</i>	4) To mitigate harm to protected matters the approval holder must submit a Construction Environment Management Plan (CEMP) to the department for the Minister’s approval. The approval holder must not commence the Action unless the Minister has approved the CEMP in writing. The approval holder must implement the CEMP approved by the Minister in writing until the expiry date of this approval.
<i>Original dated 17/01/2024</i>	5) By implementing the CEMP, the approval holder must achieve the following environmental objectives: prevent any avoidable harm to protected matters and mitigate unavoidable and accidental harm to protected matters .
<i>Original dated 17/01/2024</i>	6) The CEMP must be consistent with the Environmental Management Plan Guidelines , and must include: <ul style="list-style-type: none"> a) Details of the relevant protected matters and a reference to the EPBC Act approval conditions to which the plan refers. b) A table of commitments made in the plan to achieve the environmental objectives, and a reference to exactly where these commitments are detailed in the plan. c) Commitments capable of ensuring that the environmental objectives are achieved.

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- d) Reporting and review mechanisms to demonstrate compliance with the commitments made in the plan.
 - e) An assessment of risks relating to achieving the environmental objectives and risk management strategies and/or mitigation measures that will be applied to address identified risks.
 - f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.
 - g) A monitoring program, which must include:
 - i) measurable performance indicators;
 - ii) trigger values for corrective actions;
 - iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators;
 - iv) proposed corrective actions if trigger values are reached.
-

As varied on the date this instrument was signed

OFFSET STRATEGY

- 7) To compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**, within 2 months of the date of this variation decision, the approval holder must submit an Offset Strategy to the **department** for approval by the **Minister**. The approval holder must not transmit water in the pipes installed as part of this Action unless the Offset Strategy has been approved by the **Minister** in writing. The approval holder must commence implementing the Offset Strategy approved by the **Minister** prior to transmitting water in the pipes installed as part of this Action and continue to implement the Offset Strategy until the expiry date of this approval. The Offset Strategy must, to the satisfaction of the **Minister**:
 - a) be prepared in accordance with the **Environmental Offsets Policy**,
 - b) identify and propose one or more environmental offsets suitable to compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**,
 - c) include summary information on the residual impacts to **protected matters** that will be compensated for by the proposed offset including all areas of habitat, and the **habitat quality**, for **protected matters** at all locations impacted by the Action which the offset is to address,
 - d) detail the areas of offset habitat, and the habitat quality, required for **protected matters** at each proposed offset site,
 - e) specify achievable proposed offset outcomes and timeframes for their achievement,
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- f) specify a monitoring program to determine progress towards, attainment of and maintenance of the proposed environmental outcomes for the protected matters,
 - g) specify how and at what frequency offsets management results, monitoring program findings and assessments of offset outcomes will be reported to the **department** and the general public, and
 - h) detail how each offset site will be protected, including **securement**, and how offset outcomes for the **protected matters** will be maintained at least until the expiry of this approval.

As varied on the date this instrument was signed

OFFSET MANAGEMENT PLANS

- 8) To compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**, within 30 **business days** of the date on which the Offset Strategy is approved by the **Minister**, the approval holder must submit to the **department** for approval by the **Minister** an Offset Management Plan (OMP) in respect of each offset site proposed in the approved Offset Strategy.

As varied on the date this instrument was signed

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- 8A) Each OMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in each OMP must be **SMART** and based on referenced or included evidence of effectiveness. Each OMP must be prepared by a **suitably qualified ecologist** and must include:
 - a) detailed information on the residual impacts to **protected matters** that will be compensated for by the offset (comprising both the **securement** of all offset sites and the **habitat quality** improvements to be achieved at each offset site), including all areas of habitat, and the **habitat quality**, for **protected matters** at all locations impacted by the Action which the offset is to address,
 - b) the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the OMP refers,
 - c) detailed information and a **shapefile** specifying the location, area and boundaries of each offset site,
 - d) detailed baseline information on the areas of the habitat, and the **habitat quality**, for **protected matters** on each offset site,
 - e) commitments to achievable offset outcomes at each offset site and the timeframes in which they will be achieved,
 - f) a table summarising all commitments to achieve the offset outcomes for **protected matters** at each offset site and a reference to where each commitment is detailed in the OMP,

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- g) reporting and review mechanisms to inform the **department** annually regarding compliance with the management and environmental outcome commitments, and attainment and maintenance of the offset outcomes specified in the OMP,
 - h) an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these,
 - i) a monitoring program, which must specify:
 - i) measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the **protected matters**.
 - ii) trigger values for corrective actions, and
 - iii) the proposed timing (including season/time of day/frequency), methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the **protected matters**,
 - j) corrective actions to be implemented to ensure all offset outcomes for the **protected matters** are achieved or maintained if trigger values are reached or performance indicators not achieved in the specified timeframes,
 - k) references to related plans and conditions of approval (including state/territory approval conditions), and
 - l) how each offset site will be protected, including **securement**, and all offset outcomes maintained, at least until the expiry of the approval.

As varied on the date this instrument was signed

8B) If, after 90 **business days** after the date on which the Offset Strategy is approved by the **Minister**, the **Minister** has not approved any OMP in respect of an offset site proposed in the approved Offset Strategy, and the **Minister** notifies the approval holder in writing that one or more OMP is not suitable to approve, then, at least 20 **business days** after providing such notification, the **Minister** may approve a version of any such OMP that has been prepared by the **department**. The approval holder must commence implementing each approved OMP within 20 business days of it being approved by the Minister and continue to implement each approved OMP at least until the expiry date of this approval.

As varied on the date this

8C) The approval holder must, within 5 **business days** of commencing implementation of each OMP, notify the **department** of the date on which implementation of that OMP commenced.

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<i>instrument was signed</i>	
<i>As varied on the date this instrument was signed</i>	OFFSET SITE SECUREMENT 9) The approval holder must secure each offset site specified in the approved Offset Strategy within 12 months of the date on which the Minister approved the Offset Strategy. The approval holder must ensure each offset site remains secured at least until the expiry date of this approval.
<i>As varied on the date this instrument was signed</i>	9A) The approval holder must notify and provide evidence to the department in writing within five (5) business days of each offset site being secured .
<i>As varied on the date this instrument was signed</i>	ACHIEVEMENT OF OFFSET OUTCOMES 9B) The approval holder must achieve the offset outcomes for each offset site specified in the approved OMPs by the time specified in the OMPs. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval.
<i>As varied on the date this instrument was signed</i>	9C) The approval holder must, within 40 business days of the 12 th anniversary of the commencement of OMP implementation : a) have each offset site specified in the approved OMPs assessed by a suitably qualified ecologist to determine if the offset outcomes specified in the OMPs have been achieved, b) submit to the department a report prepared by a suitably qualified ecologist detailing the areas and habitat quality of Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo , present in the month prior to the 12 th anniversary of the commencement of OMP implementation in each offset site specified in the approved OMPs, and c) notify the department in writing of all offset outcomes at any offset site specified in an approved OMP which has not been achieved and the likely reasons that achievement of each offset outcome has not been realised.

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Part B – Administrative conditions

REVISION OF ACTION MANAGEMENT PLANS

*Original dated
17/01/2024*

10) The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** or as subsequently revised in accordance with the following conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.

*Original dated
17/01/2024*

11) The approval holder may choose to revise an action management plan approved by the **Minister** under condition 4, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.

*Original dated
17/01/2024*

12) If the approval holder makes the choice under condition 11 to revise an action management plan without submitting it for approval, the approval holder must:

- a) Notify the **department** electronically that the approved action management plan has been revised and provide the **department** with:
 - i) An electronic copy of the RAMP.
 - ii) An electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP.
 - iii) An explanation of the differences between the approved action management plan and the RAMP.
 - iv) The reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.
 - v) Written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 **business days** after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the **department**.
- b) Subject to condition 14, implement the RAMP from the RAMP implementation date.

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<i>Original dated 17/01/2024</i>	19) The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public. If sensitive ecological data is excluded or redacted from a plan , the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website .
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NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION

<i>Original dated 17/01/2024</i>	20) The approval holder must notify the department electronically of the date of commencement of the Action , within 5 business days following commencement of the Action .
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<i>Original dated 17/01/2024</i>	21) The approval holder must not Commence the Action later than 5 years after the date of this approval decision.
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COMPLIANCE RECORDS

<i>Original dated 17/01/2024</i>	22) The approval holder must maintain accurate and complete compliance records .
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<i>Original dated 17/01/2024</i>	23) If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request. Note: Compliance records may be subject to audit by the department , or by an independent auditor in accordance with section 458 of the EPBC Act , and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the department's website or through the general media.
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<i>Original dated 17/01/2024</i>	24) The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guidelines for biological survey and mapped data</i> , Commonwealth of Australia 2018, or as otherwise specified by the Minister in writing.
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<i>Original dated 17/01/2024</i>	25) The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guide to providing maps and boundary data for EPBC Act projects</i> , Commonwealth of Australia 2021, or as otherwise specified by the Minister in writing.
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<i>Original dated 17/01/2024</i>	26) The approval holder must 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 20 business days of each
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<i>Original dated 17/01/2024</i>	13) The approval holder may revoke its choice to implement a RAMP under condition 11 at any time by giving written notice to the department . If the approval holder revokes the choice under condition 11, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 11.
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<i>Original dated 17/01/2024</i>	14) If the Minister notifies the approval holder that the Minister is satisfied that the taking of the Action in accordance with the RAMP would be likely to have a new or increased impact , then: a) Condition 11 does not apply, or ceases to apply, in relation to the RAMP. b) The approval holder must implement the action management plan specified by the Minister in the notice.
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<i>Original dated 17/01/2024</i>	15) At the time of giving the notice under condition 14, the Minister may also notify that for a specified period of time, condition 11 does not apply for one or more specified action management plans. Note: Conditions [11], [12], [13], [14] and [15] are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised action management plan, at any time, to the Minister for approval.
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SUBMISSION AND PUBLICATION OF PLANS

<i>Original dated 17/01/2024</i>	16) The approval holder must submit all plans required by these conditions electronically to the department .
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<i>Original dated 17/01/2024</i>	17) Unless otherwise agreed to in writing by the Minister , the approval holder must publish the plan on the website within 15 business days of the date: a) of this approval, if the version of the plan to be implemented is specified in these conditions, or b) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister , or c) the plan is submitted to the department in accordance with a requirement of these conditions, if the plan does not require the approval of the Minister , or d) the plan is approved by a state or territory government official as required under a state or territory government condition which must be complied with in accordance with these EPBC Act conditions.
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<i>Original dated 17/01/2024</i>	18) The approval holder must keep all plans required by these conditions published on the website until the expiry date of this approval.
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anniversary of the date of this approval decision or in accordance with the requirements of the **plans**.

ANNUAL COMPLIANCE REPORTING

*Original dated
17/01/2024*

27) The approval holder must prepare a **compliance report** for each 12-month period following the date of this approval decision (or as otherwise agreed to in writing by the **Minister**).

*Original dated
17/01/2024*

28) Each **compliance report** must be consistent with the *Annual Compliance Report Guidelines*, Commonwealth of Australia 2023.

*Original dated
17/01/2024*

29) Each **compliance report** must include:

- a) Accurate and complete details of compliance and any non-compliance with the conditions and the **plans**, and any **incidents**.
- b) One or more **shapefile** showing all **clearing of protected matters**, and/or their habitat, undertaken within the 12-month period at the end of which that **compliance report** is prepared.
- c) A schedule of all **plans** in existence in relation to these conditions and accurate and complete details of how each **plan** is being implemented.

*Original dated
17/01/2024*

30) The approval holder must:

- a) Publish each **compliance report** on the **website** within 60 **business days** following the end of the 12-month period for which that **compliance report** is required.
- b) Notify the **department** electronically, within 5 **business days** of the date of publication that a **compliance report** has been published on the **website**.
- c) Provide the weblink for the **compliance report** in the notification to the **department**.
- d) Keep all published **compliance reports** required by these conditions on the **website** until the expiry date of this approval.
- e) Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website** or otherwise provided to a member of the public.
- f) If **sensitive ecological data** is excluded or redacted from the published version, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

Note: **Compliance reports** may be published on the **department's** website.

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REPORTING NON-COMPLIANCE

*Original dated
17/01/2024*

31) The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**.

*Original dated
17/01/2024*

32) The approval holder must specify in the notification:

- a) Any condition or commitment made in a **plan** which has been or may have been breached.
- b) A short description of the **incident** and/or potential non-compliance and/or actual non-compliance.
- c) The location (including co-ordinates), date and time of the **incident** and/or potential non-compliance and/or actual non-compliance.

Note: If the exact information cannot be provided, the approval holder must provide the best information available.

*Original dated
17/01/2024*

33) The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance, the details of that **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**. The approval holder must specify:

- a) Any corrective action or investigation which the approval holder has already taken.
- b) The potential impacts of the **incident** and/or non-compliance.
- c) The method and timing of any corrective action that will be undertaken by the approval holder.

INDEPENDENT AUDIT

*Original dated
17/01/2024*

34) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every five-year period following the **commencement of the Action** until this approval expires (unless otherwise specified in writing by the **Minister**).

*Original dated
17/01/2024*

35) For each **independent audit**, the approval holder must:

- a) Provide the name and qualifications of the nominated **independent auditor**, the draft audit criteria, and proposed timeframe for submitting the **audit report** to the **department** prior to commencing the **independent audit**.
- b) Only commence the **independent audit** once the nominated **independent auditor**, audit criteria and timeframe for submitting the **audit report** have been approved in writing by the **department**.

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	<p>c) Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department.</p> <p>d) Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report.</p> <p>e) Keep every audit report published on the website until this approval expires.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>36) Each audit report must report for the five-year period preceding that audit report.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>37) Each audit report must be completed to the satisfaction of the Minister and be consistent with the <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i>, Commonwealth of Australia 2019.</p>
<p>COMPLETION OF THE ACTION</p>	
<p><i>Original dated 17/01/2024</i></p>	<p>38) The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>39) Within 20 business days after the completion of the Action, and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data. The approval holder must submit any spatial data that comprises completion data as a shapefile.</p>

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Part C – Definitions

date of decision definitions attached to approval

In these conditions any bolded use of a word or term refers to the below definition of that word or term:

As varied on the date this instrument was signed **120 Ridge Road, Kawarren Offset Site Management Plan – Revoked.**

As varied on the date this instrument was signed **245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan – Revoked.**

Original dated 17/01/2024 **Audit report** means a written report of compliance and fulfilment of the conditions attached to this approval, objectively evaluated against the audit criteria approved by the **department**.

Original dated 17/01/2024 **Business day** means a day that is not a Saturday, a Sunday or a public holiday in Victoria.

Original dated 17/01/2024 **Clear, cleared, clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation.

Original dated 17/01/2024 **Commence the Action or Commencement of the Action** means the date on which the first instance of any on-site Clearing, Construction or other physical activity associated with the Action is undertaken, but does not include minor physical disturbance necessary to:

- a) Undertake pre-clearance surveys or monitoring programs.
- b) Install signage and/or temporary fencing to prevent unapproved use of the **Action area**, so long as the signage and/or temporary fencing is located where it does not **harm** any **protected matter**.
- c) Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.
- d) Install temporary site facilities for persons undertaking pre-commencement activities so long as these facilities are located where they do not **harm** any **protected matter**.

Original dated 17/01/2024 **Completion data** means an environmental report and spatial data clearly detailing how the conditions of this approval have been met.

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<i>Original dated 17/01/2024</i>	Completion of the Action means the date on which all activities associated with this approval have permanently ceased and/or been completed.
<i>Original dated 17/01/2024</i>	Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval (including compliance with commitments made in plans) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.
<i>Original dated 17/01/2024</i>	Compliance report means a written report of compliance with, and fulfilment of, the conditions attached to the approval.
<i>Original dated 17/01/2024</i>	Construction means: <ul style="list-style-type: none"> a) the clearing of approximately 10 m wide area along the length of the construction corridor with the possibly clearing of potential habitat trees for Gang-gang Cockatoos and Yellow-bellied Glider. b) the excavation of an 1.2-4 m wide open cut trench alongside the existing pipeline. c) the laying of a 600 mm diameter (nominal) pipeline to be installed via open cut trenching, with short sections of 250 to 375 mm diameter (nominal) pipeline at the connection points to existing pipelines within the open cut trenching and the refilling of the trench. d) Construction does not include the installation of temporary no-go fences and signage.
<i>Original dated 17/01/2024</i>	Department means the Australian Government agency responsible for administering the EPBC Act .
<i>Original dated 17/01/2024</i>	Environmental Management Plan Guidelines means the <i>Environmental Management Plan Guidelines</i> , Commonwealth of Australia 2014.
<i>Original dated 17/01/2024</i>	Environmental Offsets Policy means the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> , Commonwealth of Australia 2012.
<i>Original dated 17/01/2024</i>	EPBC Act means the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth).
<i>Original dated 17/01/2024</i>	Gang-gang Cockatoo means the EPBC Act listed species <i>Callocephalon fimbriatum</i> .
<i>Original dated 17/01/2024</i>	Gang-gang Cockatoo habitat means foraging, roosting and/or connected habitat as described in the <i>Approved Conservation Advice for Callocephalon fimbriatum (Gang-gang Cockatoo)</i> dated 2 March 2022 or later updated version.

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<i>As varied on the date this instrument was signed</i>	GGC and YBG Offset site – Revoked.
<i>As varied on the date this instrument was signed</i>	Habitat quality means a measure of the overall viability of a site and its capacity to support protected matters , with respect to site condition, site context and species stocking rate and/or composition.
<i>Original dated 17/01/2024</i>	Harm means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action.
<i>Original dated 17/01/2024</i>	Incident means any event which has the potential to, or does, harm any protected matter .
<i>As varied on the date this instrument was signed</i>	Independent – Revoked.
<i>As varied on the date this instrument was signed</i>	Independent audit means an audit, conducted by an independent auditor , of compliance with and fulfilment of these conditions and the commitments made in plans , objectively evaluated against the audit criteria developed by the independent auditor , in accordance with the <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i> , Commonwealth of Australia 2019.
<i>As varied on the date this instrument was signed</i>	<p>Independent auditor means a person, or firm, who:</p> <ul style="list-style-type: none"> a) does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder’s staff, representatives, or associated persons, b) has demonstrated experience in undertaking government-regulated environmental compliance audits, and c) holds relevant professional qualifications and accreditations. <p>*Other than for the purpose of undertaking the role for which an independent auditor is required</p>
<i>As varied on the date this instrument was signed</i>	LNP Offset site - Revoked.
<i>Original dated 17/01/2024</i>	Long-nosed Potoroo habitat means habitat as described in the <i>Approved Conservation Advice for <u>Potorous tridactylus trisulcatus</u> (southern long-nosed potoroo)</i> , dated 2 March 2022 or later updated version.

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<i>Original dated 17/01/2024</i>	Long-nosed Potoroo means the EPBC Act listed species <i>Potorous tridactylus trisulcatus</i> .
<i>Original dated 17/01/2024</i>	Minister means the Australian Government Minister administering the EPBC Act , including any delegate thereof.
<i>Original dated 17/01/2024</i>	Monitoring data means the data required to be recorded under the conditions of this approval.
<i>Original dated 17/01/2024</i>	New or increased impact means any direct or indirect increase in the impacts of an Action, an increase to the likelihood of an impact occurring, a reduction to the monitoring or mitigation measures for a protected matter , and/or a change to the nature or management of an environmental offset as outlined in the <i>Guidance on 'new or increased impact' relating to changes to approved management plans under EPBC Act environmental approvals</i> , Commonwealth of Australia 2017.
<i>Original dated 17/01/2024</i>	Plan means any action management plan or strategy that the approval holder is required by these conditions to implement.
<i>Original dated 17/01/2024</i>	Potential hollow-bearing trees means hollow-bearing trees discussed in either of the conservation advices for Gang-gang Cockatoo habitat or Yellow-bellied Glider habitat .
<i>Original dated 17/01/2024</i>	Project area means the location of the Action, represented in Attachment 1 by the areas enclosed by the aqua lines designated 'Construction Corridor' in the legend.
<i>Original dated 17/01/2024</i>	Protected matter means a matter protected under a controlling provision in Part 3 of the EPBC Act for which this approval has effect.
<i>Original dated 17/01/2024</i>	Secure or secured or securement means to provide enduring conservation protection on the title of land under Section 69 of the <i>Conservation, Forests and Lands Act 1987</i> (Vic), or another enduring protection mechanism agreed to in writing by the department , to provide protection for the site against development incompatible with conservation.
<i>Original dated 17/01/2024</i>	Sensitive ecological data means data as defined in the <i>Sensitive Ecological Data – Access and Management Policy V1.0</i> , Commonwealth of Australia 2016.
<i>Original dated 17/01/2024</i>	Shapefile means location and attribute information about the Action provided in an Esri shapefile format containing: <ul style="list-style-type: none"> a. '.shp', '.shx', '.dbf' files, b. a '.prj' file which specifies the projection or geographic coordinate system used, and c. an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

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<i>As varied on the date this instrument was signed</i>	SMART means specific, measurable, achievable, relevant and time-bound.
<i>As varied on the date this instrument was signed</i>	Suitably qualified ecologist (for the purpose of preparing and implementing environmental management plans and undertaking surveys) means a person who has relevant professional qualifications and at least 3 years of work experience designing and implementing surveys for Gang-gang Cockatoo , Yellow-bellied Glider and Long-nosed Potoroo , and has work experience designing and implementing conservation land management plans and has demonstrated their capability in achieving specified environmental outcomes and habitat quality uplift through conservation land management.
<i>As varied on the date this instrument was signed</i>	Suitably qualified expert - Revoked.
<i>As varied on the date this instrument was signed</i>	Suitably qualified person -- Revoked.
<i>Original dated 17/01/2024</i>	Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.
<i>Original dated 17/01/2024</i>	Yellow-bellied Glider habitat means foraging, potential denning and/or breeding habitat as described in the <i>Approved Conservation Advice for <u>Petaurus australis australis</u> (yellow-bellied glider (south-eastern))</i> , dated 2 March 2022 or later updated version.
<i>Original dated 17/01/2024</i>	Yellow-bellied Glider means the EPBC Act listed species <i>Petaurus australis australis</i> .

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Attachments

date of decision Annexure A

Original dated Attachment 1: Maps showing location of proposed Colac Pipeline Upgrade sections.
17/01/2024

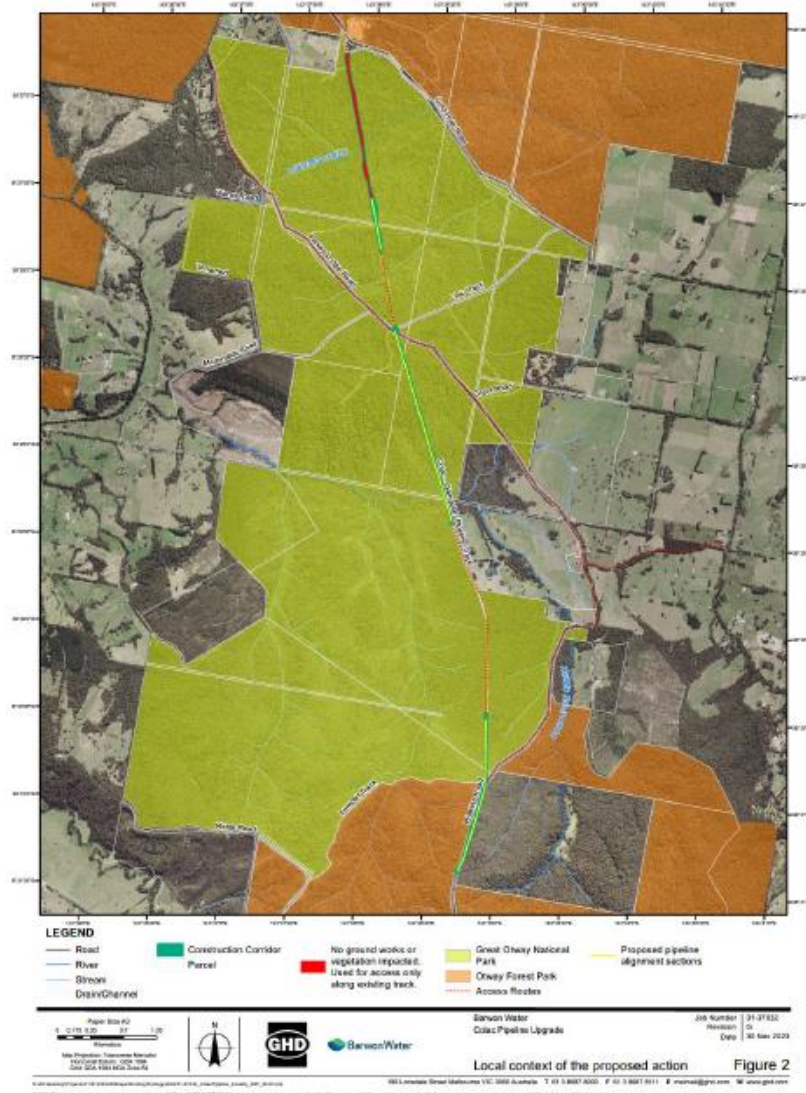


Figure 1: Overall map showing location of proposed Colac Pipeline Upgrade sections.

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Figure 2 Map showing start of section 25i (not impacted).

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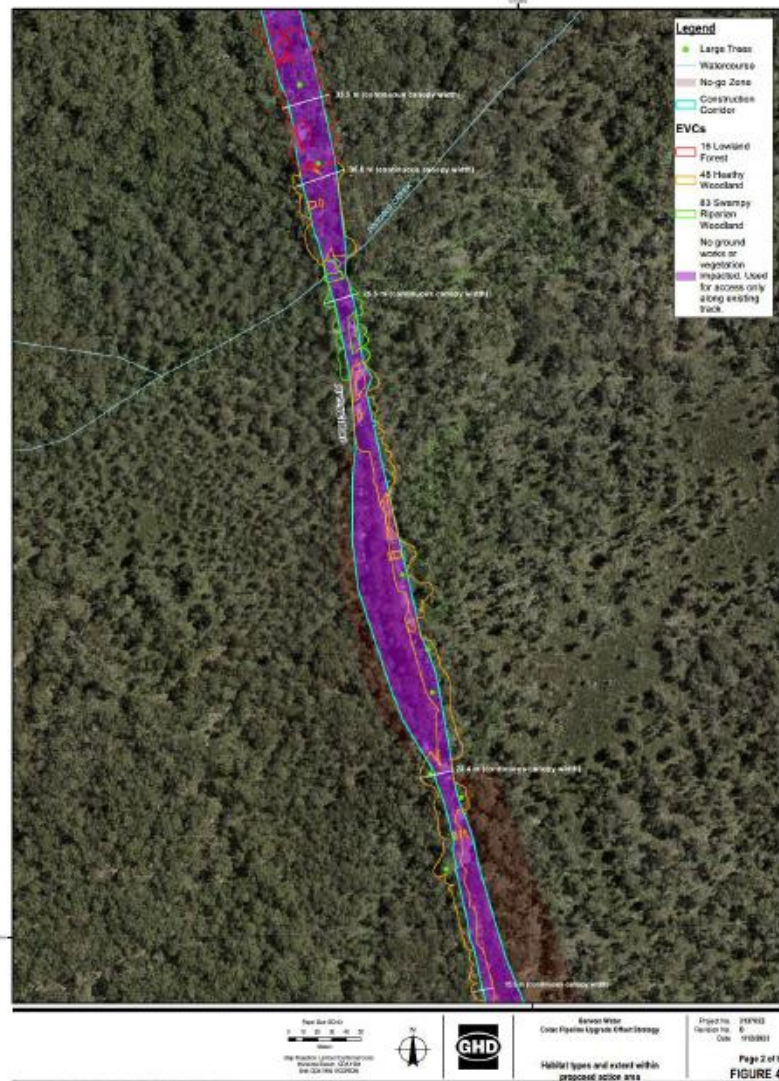


Figure 3: Map showing middle section of 25i of Colac Pipeline Upgrade (not impacted).

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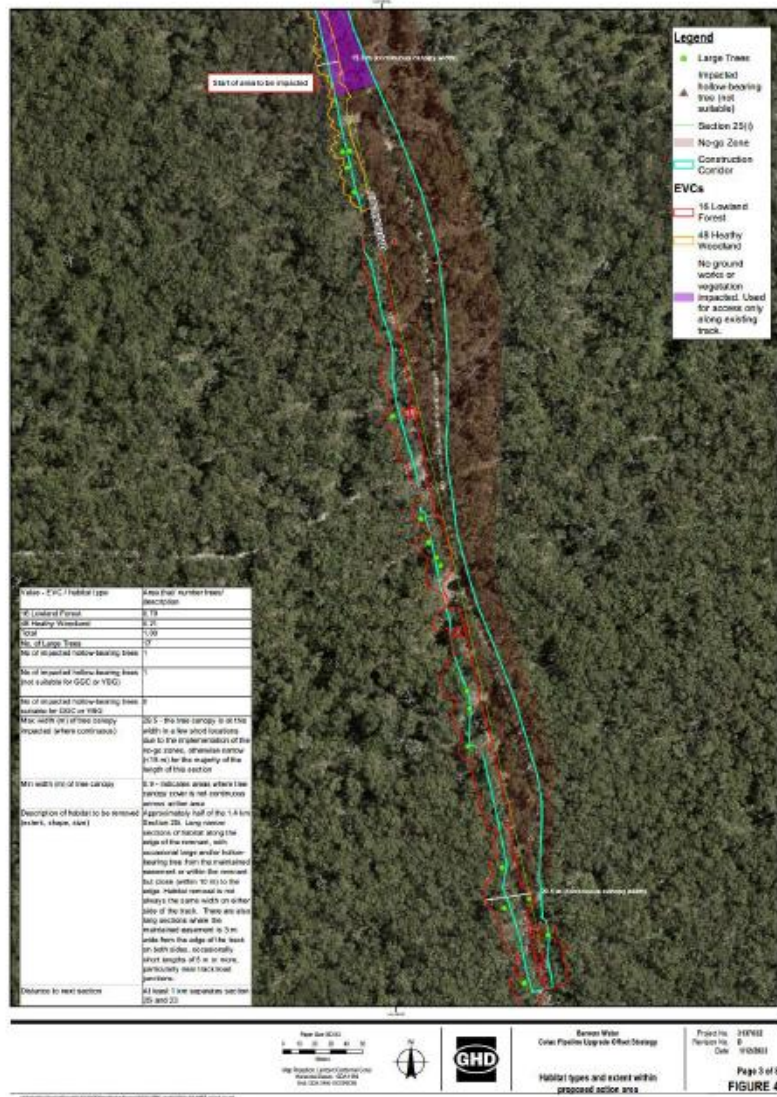


Figure 4: Map showing the end section of 25i (not impacted) and impact area of the start and end of section 25i of the Colac Pipeline Upgrade.

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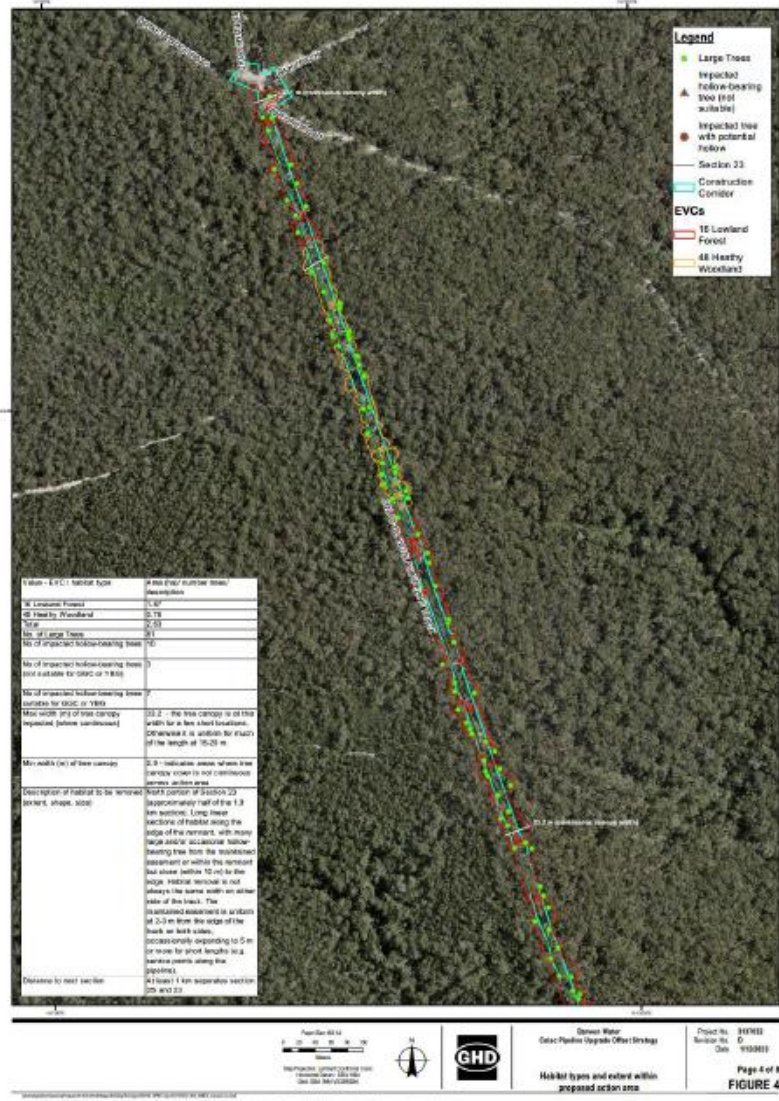


Figure 5: Map showing the impact area of the start of section 23 of the Colac Pipeline Upgrade.

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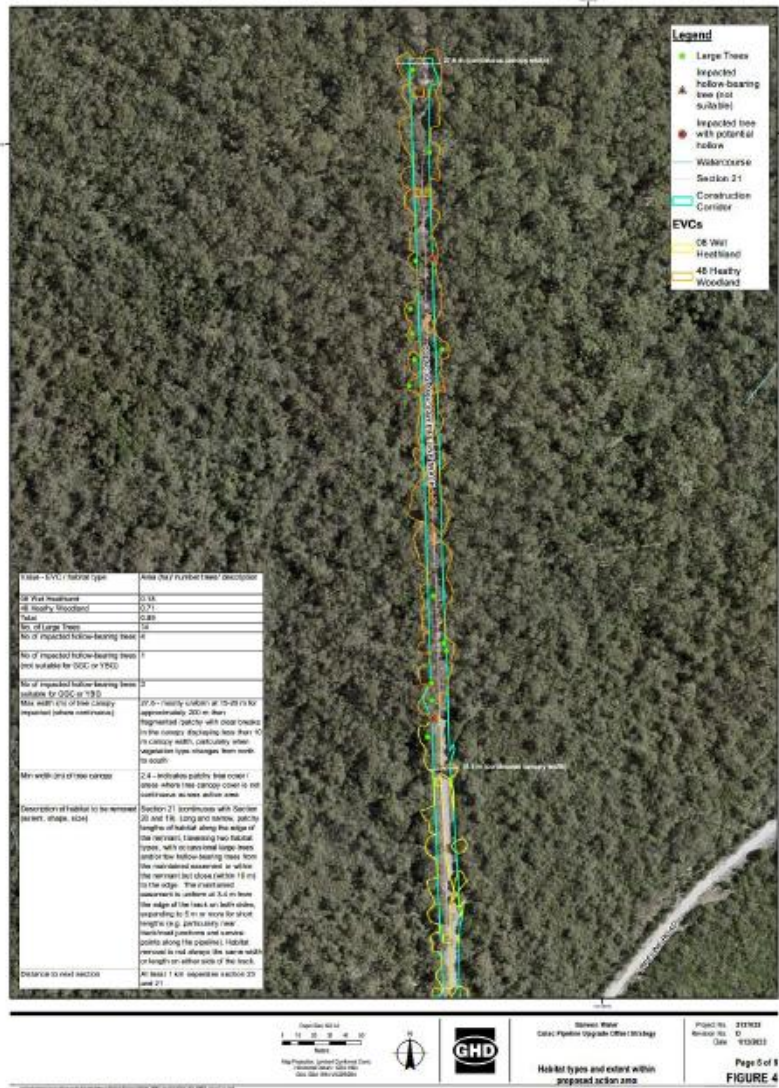


Figure 7: Map showing the impact area of the start of impact from section 21 of the Colac Pipeline Upgrade.

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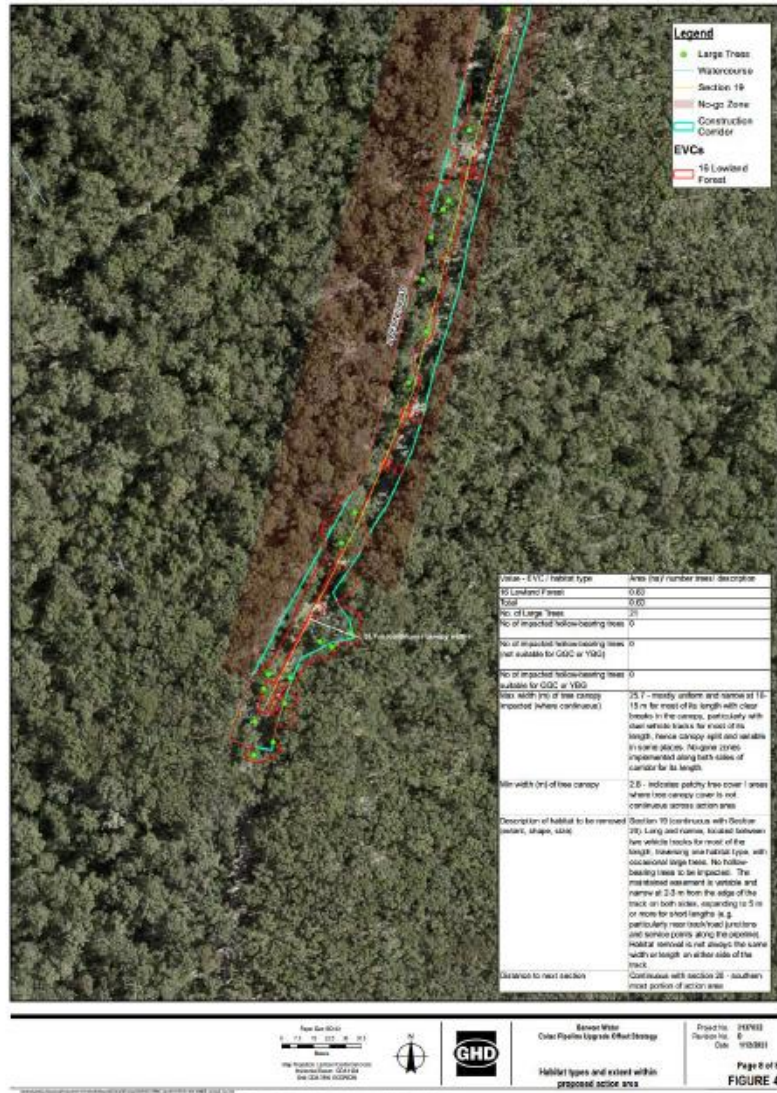


Figure 9: Map showing impact area of section 19 of the Colac Pipeline Upgrade.

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Australian Government
Department of Climate Change, Energy,
the Environment and Water

Correction Notification

Variation of conditions attached to approval, Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)

The Variation of conditions attached to approval signed on 26 July 2024 contained the following error:

The variation description on the cover page of the variation notice did not fully describe the variation of conditions contained therein. It did not list the six new conditions that were added as part of the variation, the conditions being conditions 8A, 8B, 8C, 9A, 9B and 9C.

The correct variation description should read:

Variation	
variation of conditions attached to approval	<p>The variation is:</p> <p>Delete conditions 7, 8 and 9 attached to the approval and substitute with the conditions 7, 8 and 9 specified in the table below.</p> <p>Add conditions 8A, 8B, 8C, 9A, 9B and 9C.</p> <p>Add the definitions of <i>Habitat quality</i>, <i>Independent auditor</i>, <i>SMART</i> and <i>Suitably qualified ecologist</i> specified in the table below.</p> <p>Revoke the definitions of <i>120 Ridge Road, Kawarren Offset Site Management Plan</i>, <i>245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan</i>, <i>GGC and YBG Offset site</i>, <i>LNP Offset site</i>, <i>Independent</i>, <i>Suitably qualified expert</i> and <i>Suitably qualified person</i>.</p> <p>Delete the definition of <i>Independent audit</i> and substitute with the definition specified in the table below.</p> <p>Revoke <u>Attachment 2</u>: <i>Offset site for Gang-gang Cockatoo and Yellow-bellied Glider</i> and <u>Attachment 3</u>: <i>Offset site for Long-nosed Potoroo</i>.</p>

The variation notice also contained a spelling error. Condition 6(a) read as follows:

- 6) The CEMP must be consistent with the Environmental Management Plan Guidelines, and must include:
 - a) Details of the relevant protected matters and a reference to the EPBC Act approval conditions to which the plan *oierfers*.

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The notice should read:

- 6) The CEMP must be consistent with the Environmental Management Plan Guidelines, and must include:
 - a) Details of the relevant protected matters and a reference to the EPBC Act approval conditions to which the plan refers.

A corrected version of the notice is at Annexure 1.

Person making the correction

name and position	Mike Smith
	Director Post Approvals Strategy Section

date of correction	22 November 2024
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ANNEXURE 1

Variation of conditions attached to approval

Colac Pipeline Upgrade, Colac, VIC (EPBC ref 2022/09343)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

approval holder	BARWON REGION WATER CORPORATION ABN: 86 348 316 514
approved action	To upgrade approximately 4.3 km of an existing pipeline to provide the bulk water supply to Colac, Victoria. See EPBC Act referral 2022/09343 subject to the variation of the proposed Action accepted by the Minister under section 156B on 8 September 2023

Variation

variation of conditions attached to approval	<p>The variation is:</p> <p>Delete conditions 7, 8 and 9 attached to the approval and substitute with the conditions 7, 8 and 9 specified in the table below.</p> <p>Add conditions 8A, 8B, 8C, 9A, 9B and 9C.</p> <p>Add the definitions of <i>Habitat quality</i>, <i>Independent auditor</i>, <i>SMART</i> and <i>Suitably qualified ecologist</i> specified in the table below.</p> <p>Revoke the definitions of <i>120 Ridge Road, Kawarren Offset Site Management Plan</i>, <i>245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan</i>, <i>GGC and YBG Offset site</i>, <i>LNP Offset site</i>, <i>Independent</i>, <i>Suitably qualified expert</i> and <i>Suitably qualified person</i>.</p> <p>Delete the definition of <i>Independent audit</i> and substitute with the definition specified in the table below.</p> <p>Revoke <u>Attachment 2: Offset site for Gang-gang Cockatoo and Yellow-bellied Glider</u> and <u>Attachment 3: Offset site for Long-nosed Potoroo</u>.</p>
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Annexure A

Note: Words appearing in **bold** have the meaning assigned to them at PART C – DEFINITIONS.

Date of decision	Conditions attached to approval
Part A – Operational Conditions	
CLEARING LIMITS	
<i>Original dated 17/01/2024</i>	1) To avoid and mitigate harm to protected matters , the approval holder must not undertake the Action outside the project area .
<i>Original dated 17/01/2024</i>	2) To avoid and minimise harm to protected matters , the approval holder must not clear more than: <ul style="list-style-type: none"> a) 7.31 hectares (ha) of Gang-gang Cockatoo habitat b) 5.07 ha of Yellow-bellied Glider habitat c) 7.81 ha of Long-nosed Potoroo habitat.
<i>Original dated 17/01/2024</i>	3) To avoid and minimise impact to Gang-gang Cockatoo and Yellow-bellied Glider the approval holder must not clear more than 26 potential hollow-bearing trees .
CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN	
<i>Original dated 17/01/2024</i>	4) To mitigate harm to protected matters the approval holder must submit a Construction Environment Management Plan (CEMP) to the department for the Minister’s approval. The approval holder must not commence the Action unless the Minister has approved the CEMP in writing. The approval holder must implement the CEMP approved by the Minister in writing until the expiry date of this approval.
<i>Original dated 17/01/2024</i>	5) By implementing the CEMP, the approval holder must achieve the following environmental objectives: prevent any avoidable harm to protected matters and mitigate unavoidable and accidental harm to protected matters .
<i>Original dated 17/01/2024</i>	6) The CEMP must be consistent with the Environmental Management Plan Guidelines , and must include: <p>Details of the relevant protected matters and a reference to the EPBC Act approval conditions to which the plan refers.</p> <ul style="list-style-type: none"> a) A table of commitments made in the plan to achieve the environmental objectives, and a reference to exactly where these commitments are detailed in the plan.

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- b) Commitments capable of ensuring that the environmental objectives are achieved.
 - c) Reporting and review mechanisms to demonstrate compliance with the commitments made in the plan.
 - d) An assessment of risks relating to achieving the environmental objectives and risk management strategies and/or mitigation measures that will be applied to address identified risks.
 - e) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.
 - f) A monitoring program, which must include:
 - i) measurable performance indicators;
 - ii) trigger values for corrective actions;
 - iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators;
 - iv) proposed corrective actions if trigger values are reached.
-

As varied on the date this instrument was signed

OFFSET STRATEGY

- 7) To compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**, within 2 months of the date of this variation decision, the approval holder must submit an Offset Strategy to the **department** for approval by the **Minister**. The approval holder must not transmit water in the pipes installed as part of this Action unless the Offset Strategy has been approved by the **Minister** in writing. The approval holder must commence implementing the Offset Strategy approved by the **Minister** prior to transmitting water in the pipes installed as part of this Action and continue to implement the Offset Strategy until the expiry date of this approval. The Offset Strategy must, to the satisfaction of the **Minister**:
be prepared in accordance with the **Environmental Offsets Policy**,
 - a) identify and propose one or more environmental offsets suitable to compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**,
 - b) include summary information on the residual impacts to **protected matters** that will be compensated for by the proposed offset including all areas of habitat, and the **habitat quality**, for **protected matters** at all locations impacted by the Action which the offset is to address,
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- c) detail the areas of offset habitat, and the habitat quality, required for **protected matters** at each proposed offset site,
 - d) specify achievable proposed offset outcomes and timeframes for their achievement,
 - e) specify a monitoring program to determine progress towards, attainment of and maintenance of the proposed environmental outcomes for the protected matters,
 - f) specify how and at what frequency offsets management results, monitoring program findings and assessments of offset outcomes will be reported to the **department** and the general public, and
 - g) detail how each offset site will be protected, including **securement**, and how offset outcomes for the **protected matters** will be maintained at least until the expiry of this approval.

As varied on the date this instrument was signed

OFFSET MANAGEMENT PLANS

- 8) To compensate for the residual significant impacts of the Action on **Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo**, within 30 **business days** of the date on which the Offset Strategy is approved by the **Minister**, the approval holder must submit to the **department** for approval by the **Minister** an Offset Management Plan (OMP) in respect of each offset site proposed in the approved Offset Strategy.

As varied on the date this instrument was signed

- 8A) Each OMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in each OMP must be **SMART** and based on referenced or included evidence of effectiveness. Each OMP must be prepared by a **suitably qualified ecologist** and must include:
 - detailed information on the residual impacts to **protected matters** that will be compensated for by the offset (comprising both the **securement** of all offset sites and the **habitat quality** improvements to be achieved at each offset site), including all areas of habitat, and the **habitat quality**, for **protected matters** at all locations impacted by the Action which the offset is to address,
 - a) the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the OMP refers,
 - b) detailed information and a **shapefile** specifying the location, area and boundaries of each offset site,
 - c) detailed baseline information on the areas of the habitat, and the **habitat quality**, for **protected matters** on each offset site,

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- d) commitments to achievable offset outcomes at each offset site and the timeframes in which they will be achieved,
 - e) a table summarising all commitments to achieve the offset outcomes for **protected matters** at each offset site and a reference to where each commitment is detailed in the OMP,
 - f) reporting and review mechanisms to inform the **department** annually regarding compliance with the management and environmental outcome commitments, and attainment and maintenance of the offset outcomes specified in the OMP,
 - g) an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these,
 - h) a monitoring program, which must specify:
 - i) measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the **protected matters**.
 - ii) trigger values for corrective actions, and
 - iii) the proposed timing (including season/time of day/frequency), methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the **protected matters**,
 - i) corrective actions to be implemented to ensure all offset outcomes for the **protected matters** are achieved or maintained if trigger values are reached or performance indicators not achieved in the specified timeframes,
 - j) references to related plans and conditions of approval (including state/territory approval conditions), and
 - k) how each offset site will be protected, including **securement**, and all offset outcomes maintained, at least until the expiry of the approval.

As varied on the date this instrument was signed

8B) If, after 90 **business days** after the date on which the Offset Strategy is approved by the **Minister**, the **Minister** has not approved any OMP in respect of an offset site proposed in the approved Offset Strategy, and the **Minister** notifies the approval holder in writing that one or more OMP is not suitable to approve, then, at least 20 **business days** after providing such notification, the **Minister may approve a version of any such OMP that has been prepared by the department**. The approval holder must commence implementing each approved OMP within 20 business days of

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	it being approved by the Minister and continue to implement each approved OMP at least until the expiry date of this approval.
<i>As varied on the date this instrument was signed</i>	8C) The approval holder must, within 5 business days of commencing implementation of each OMP, notify the department of the date on which implementation of that OMP commenced.
<i>As varied on the date this instrument was signed</i>	OFFSET SITE SECUREMENT 9) The approval holder must secure each offset site specified in the approved Offset Strategy within 12 months of the date on which the Minister approved the Offset Strategy. The approval holder must ensure each offset site remains secured at least until the expiry date of this approval.
<i>As varied on the date this instrument was signed</i>	9A) The approval holder must notify and provide evidence to the department in writing within five (5) business days of each offset site being secured.
<i>As varied on the date this instrument was signed</i>	ACHIEVEMENT OF OFFSET OUTCOMES 9B) The approval holder must achieve the offset outcomes for each offset site specified in the approved OMPs by the time specified in the OMPs. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval.
<i>As varied on the date this instrument was signed</i>	9C) The approval holder must, within 40 business days of the 12th anniversary of the commencement of OMP implementation : have each offset site specified in the approved OMPs assessed by a suitably qualified ecologist to determine if the offset outcomes specified in the OMPs have been achieved, a) submit to the department a report prepared by a suitably qualified ecologist detailing the areas and habitat quality of Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo , present in the month prior to the 12 th anniversary of the commencement of OMP implementation in each offset site specified in the approved OMPs, and b) notify the department in writing of all offset outcomes at any offset site specified in an approved OMP which has not been achieved and the likely reasons that achievement of each offset outcome has not been realised.

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Part B – Administrative conditions

REVISION OF ACTION MANAGEMENT PLANS

*Original dated
17/01/2024*

The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** or as subsequently revised in accordance with the following conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.

*Original dated
17/01/2024*

The approval holder may choose to revise an action management plan approved by the **Minister** under condition 4, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.

*Original dated
17/01/2024*

- 12) If the approval holder makes the choice under condition 11 to revise an action management plan without submitting it for approval, the approval holder must:
- a) Notify the **department** electronically that the approved action management plan has been revised and provide the **department** with:
 - i) An electronic copy of the RAMP.
 - ii) An electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP.
 - iii) An explanation of the differences between the approved action management plan and the RAMP.
 - iv) The reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a **new or increased impact**.
 - v) Written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 **business days** after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the **department**.
 - b) Subject to condition 14, implement the RAMP from the RAMP implementation date.
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<i>Original dated 17/01/2024</i>	13) The approval holder may revoke its choice to implement a RAMP under condition 11 at any time by giving written notice to the department . If the approval holder revokes the choice under condition 11, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 11.
<i>Original dated 17/01/2024</i>	14) If the Minister notifies the approval holder that the Minister is satisfied that the taking of the Action in accordance with the RAMP would be likely to have a new or increased impact , then: Condition 11 does not apply, or ceases to apply, in relation to the RAMP. a) The approval holder must implement the action management plan specified by the Minister in the notice.
<i>Original dated 17/01/2024</i>	15) At the time of giving the notice under condition 14, the Minister may also notify that for a specified period of time, condition 11 does not apply for one or more specified action management plans. Note: Conditions [11], [12], [13], [14] and [15] are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised action management plan, at any time, to the Minister for approval.
SUBMISSION AND PUBLICATION OF PLANS	
<i>Original dated 17/01/2024</i>	16) The approval holder must submit all plans required by these conditions electronically to the department .
<i>Original dated 17/01/2024</i>	17) Unless otherwise agreed to in writing by the Minister , the approval holder must publish the plan on the website within 15 business days of the date: of this approval, if the version of the plan to be implemented is specified in these conditions, or a) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister , or b) the plan is submitted to the department in accordance with a requirement of these conditions, if the plan does not require the approval of the Minister , or c) the plan is approved by a state or territory government official as required under a state or territory government condition which must be complied with in accordance with these EPBC Act conditions.
<i>Original dated 17/01/2024</i>	18) The approval holder must keep all plans required by these conditions published on the website until the expiry date of this approval.

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Original dated 17/01/2024 19) The approval holder is required to exclude or redact **sensitive ecological data** from **plans** published on the **website** or otherwise provided to a member of the public. If **sensitive ecological data** is excluded or redacted from a **plan**, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION

Original dated 17/01/2024 20) The approval holder must notify the **department** electronically of the date of **commencement of the Action**, within **5 business days** following **commencement of the Action**.

Original dated 17/01/2024 21) The approval holder must not **Commence the Action** later than **5 years** after the date of this approval decision.

COMPLIANCE RECORDS

Original dated 17/01/2024 22) The approval holder must maintain accurate and complete **compliance records**.

Original dated 17/01/2024 23) If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **department**, or by an **independent auditor** in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media.

Original dated 17/01/2024 24) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing.

Original dated 17/01/2024 25) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing.

Original dated 17/01/2024 26) The approval holder must 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 **20 business days** of each

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anniversary of the date of this approval decision or in accordance with the requirements of the **plans**.

ANNUAL COMPLIANCE REPORTING

<i>Original dated 17/01/2024</i>	27) The approval holder must prepare a compliance report for each 12-month period following the date of this approval decision (or as otherwise agreed to in writing by the Minister).
<i>Original dated 17/01/2024</i>	28) Each compliance report must be consistent with the <i>Annual Compliance Report Guidelines, Commonwealth of Australia 2023</i> .
<i>Original dated 17/01/2024</i>	29) Each compliance report must include: Accurate and complete details of compliance and any non-compliance with the conditions and the plans , and any incidents . a) One or more shapefile showing all clearing of protected matters , and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared. b) A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.
<i>Original dated 17/01/2024</i>	30) The approval holder must: Publish each compliance report on the website within 60 business days following the end of the 12-month period for which that compliance report is required. a) Notify the department electronically, within 5 business days of the date of publication that a compliance report has been published on the website . b) Provide the weblink for the compliance report in the notification to the department . c) Keep all published compliance reports required by these conditions on the website until the expiry date of this approval. d) Exclude or redact sensitive ecological data from compliance reports published on the website or otherwise provided to a member of the public. e) If sensitive ecological data is excluded or redacted from the published version, submit the full compliance report to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website .

Note: Compliance reports may be published on the **department's** website.

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REPORTING NON-COMPLIANCE	
<i>Original dated 17/01/2024</i>	31) The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan .
<i>Original dated 17/01/2024</i>	32) The approval holder must specify in the notification: Any condition or commitment made in a plan which has been or may have been breached. a) A short description of the incident and/or potential non-compliance and/or actual non-compliance. b) The location (including co-ordinates), date and time of the incident and/or potential non-compliance and/or actual non-compliance. Note: If the exact information cannot be provided, the approval holder must provide the best information available.
<i>Original dated 17/01/2024</i>	33) The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan . The approval holder must specify: Any corrective action or investigation which the approval holder has already taken. a) The potential impacts of the incident and/or non-compliance. b) The method and timing of any corrective action that will be undertaken by the approval holder.
INDEPENDENT AUDIT	
<i>Original dated 17/01/2024</i>	34) The approval holder must ensure that an independent audit of compliance with the conditions is conducted for every five-year period following the commencement of the Action until this approval expires (unless otherwise specified in writing by the Minister).
<i>Original dated 17/01/2024</i>	35) For each independent audit , the approval holder must: Provide the name and qualifications of the nominated independent auditor , the draft audit criteria, and proposed timeframe for submitting the audit report to the department prior to commencing the independent audit .

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	a) Only commence the independent audit once the nominated independent auditor , audit criteria and timeframe for submitting the audit report have been approved in writing by the department .
	b) Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department .
	c) Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report .
	d) Keep every audit report published on the website until this approval expires.

<i>Original dated 17/01/2024</i>	36) Each audit report must report for the five-year period preceding that audit report.
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<i>Original dated 17/01/2024</i>	37) Each audit report must be completed to the satisfaction of the Minister and be consistent with the <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i> , Commonwealth of Australia 2019.
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COMPLETION OF THE ACTION

<i>Original dated 17/01/2024</i>	38) The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.
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<i>Original dated 17/01/2024</i>	39) Within 20 business days after the completion of the Action , and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data . The approval holder must submit any spatial data that comprises completion data as a shapefile .
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Part C – Definitions

date of decision definitions attached to approval

In these conditions any bolded use of a word or term refers to the below definition of that word or term:

As varied on the date this instrument was signed **120 Ridge Road, Kawarren Offset Site Management Plan – Revoked.**

As varied on the date this instrument was signed **245 Distillery Creek Road, Aireys Inlet Offset Site Management Plan – Revoked.**

Original dated 17/01/2024 **Audit report** means a written report of compliance and fulfilment of the conditions attached to this approval, objectively evaluated against the audit criteria approved by the **department**.

Original dated 17/01/2024 **Business day** means a day that is not a Saturday, a Sunday or a public holiday in Victoria.

Original dated 17/01/2024 **Clear, cleared, clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation.

Original dated 17/01/2024 **Commence the Action or Commencement of the Action** means the date on which the first instance of any on-site Clearing, Construction or other physical activity associated with the Action is undertaken, but does not include minor physical disturbance necessary to:

- Undertake pre-clearance surveys or monitoring programs.
- a) Install signage and/or temporary fencing to prevent unapproved use of the **Action area**, so long as the signage and/or temporary fencing is located where it does not **harm any protected matter**.
- b) Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.
- c) Install temporary site facilities for persons undertaking pre-commencement activities so long as these facilities are located where they do not **harm any protected matter**.

Original dated 17/01/2024 **Completion data** means an environmental report and spatial data clearly detailing how the conditions of this approval have been met.

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<i>Original dated 17/01/2024</i>	Completion of the Action means the date on which all activities associated with this approval have permanently ceased and/or been completed.
<i>Original dated 17/01/2024</i>	Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval (including compliance with commitments made in plans) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.
<i>Original dated 17/01/2024</i>	Compliance report means a written report of compliance with, and fulfilment of, the conditions attached to the approval.
<i>Original dated 17/01/2024</i>	<p>Construction means:</p> <ul style="list-style-type: none"> the clearing of approximately 10 m wide area along the length of the construction corridor with the possibly clearing of potential habitat trees for Gang-gang Cockatoos and Yellow-bellied Glider. d) the excavation of an 1.2-4 m wide open cut trench alongside the existing pipeline. e) the laying of a 600 mm diameter (nominal) pipeline to be installed via open cut trenching, with short sections of 250 to 375 mm diameter (nominal) pipeline at the connection points to existing pipelines within the open cut trenching and the refilling of the trench. f) Construction does not include the installation of temporary no-go fences and signage.
<i>Original dated 17/01/2024</i>	Department means the Australian Government agency responsible for administering the EPBC Act .
<i>Original dated 17/01/2024</i>	Environmental Management Plan Guidelines means the <i>Environmental Management Plan Guidelines</i> , Commonwealth of Australia 2014.
<i>Original dated 17/01/2024</i>	Environmental Offsets Policy means the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> , Commonwealth of Australia 2012.
<i>Original dated 17/01/2024</i>	EPBC Act means the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth).
<i>Original dated 17/01/2024</i>	Gang-gang Cockatoo means the EPBC Act listed species <i>Callocephalon fimbriatum</i> .
<i>Original dated 17/01/2024</i>	Gang-gang Cockatoo habitat means foraging, roosting and/or connected habitat as described in the <i>Approved Conservation Advice for <u>Callocephalon fimbriatum</u> (Gang-gang Cockatoo)</i> dated 2 March 2022 or later updated version.

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<i>As varied on the date this instrument was signed</i>	GGC and YBG Offset site – Revoked.
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<i>As varied on the date this instrument was signed</i>	Habitat quality means a measure of the overall viability of a site and its capacity to support protected matters , with respect to site condition, site context and species stocking rate and/or composition.
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<i>Original dated 17/01/2024</i>	Harm means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action.
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<i>Original dated 17/01/2024</i>	Incident means any event which has the potential to, or does, harm any protected matter .
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<i>As varied on the date this instrument was signed</i>	Independent – Revoked.
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<i>As varied on the date this instrument was signed</i>	Independent audit means an audit, conducted by an independent auditor , of compliance with and fulfilment of these conditions and the commitments made in plans , objectively evaluated against the audit criteria developed by the independent auditor , in accordance with the <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i> , Commonwealth of Australia 2019.
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<i>As varied on the date this instrument was signed</i>	Independent auditor means a person, or firm, who: does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder’s staff, representatives, or associated persons, g) has demonstrated experience in undertaking government-regulated environmental compliance audits, and h) holds relevant professional qualifications and accreditations. *Other than for the purpose of undertaking the role for which an independent auditor is required
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<i>As varied on the date this instrument was signed</i>	LNP Offset site - Revoked.
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<i>Original dated 17/01/2024</i>	Long-nosed Potoroo habitat means habitat as described in the <i>Approved Conservation Advice for <u>Potorous tridactylus trisulcatus</u> (southern long-nosed potoroo)</i> , dated 2 March 2022 or later updated version.
<i>Original dated 17/01/2024</i>	Long-nosed Potoroo means the EPBC Act listed species <i>Potorous tridactylus trisulcatus</i> .
<i>Original dated 17/01/2024</i>	Minister means the Australian Government Minister administering the EPBC Act , including any delegate thereof.
<i>Original dated 17/01/2024</i>	Monitoring data means the data required to be recorded under the conditions of this approval.
<i>Original dated 17/01/2024</i>	New or increased impact means any direct or indirect increase in the impacts of an Action, an increase to the likelihood of an impact occurring, a reduction to the monitoring or mitigation measures for a protected matter , and/or a change to the nature or management of an environmental offset as outlined in the <i>Guidance on 'new or increased impact' relating to changes to approved management plans under EPBC Act environmental approvals</i> , Commonwealth of Australia 2017.
<i>Original dated 17/01/2024</i>	Plan means any action management plan or strategy that the approval holder is required by these conditions to implement.
<i>Original dated 17/01/2024</i>	Potential hollow-bearing trees means hollow-bearing trees discussed in either of the conservation advices for Gang-gang Cockatoo habitat or Yellow-bellied Glider habitat .
<i>Original dated 17/01/2024</i>	Project area means the location of the Action, represented in <u>Attachment 1</u> by the areas enclosed by the aqua lines designated 'Construction Corridor' in the legend.
<i>Original dated 17/01/2024</i>	Protected matter means a matter protected under a controlling provision in Part 3 of the EPBC Act for which this approval has effect.
<i>Original dated 17/01/2024</i>	Secure or secured or securement means to provide enduring conservation protection on the title of land under Section 69 of the <i>Conservation, Forests and Lands Act 1987</i> (Vic), or another enduring protection mechanism agreed to in writing by the department , to provide protection for the site against development incompatible with conservation.
<i>Original dated 17/01/2024</i>	Sensitive ecological data means data as defined in the <i>Sensitive Ecological Data – Access and Management Policy V1.0</i> , Commonwealth of Australia 2016.
<i>Original dated 17/01/2024</i>	Shapefile means location and attribute information about the Action provided in an Esri shapefile format containing: <ul style="list-style-type: none"> a. '.shp', '.shx', '.dbf' files,

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	<p>b. a '.prj' file which specifies the projection or geographic coordinate system used, and</p> <p>c. an '.xml' metadata file that describes the shapefile for discovery and identification purposes.</p>
<p><i>As varied on the date this instrument was signed</i></p>	<p>SMART means specific, measurable, achievable, relevant and time-bound.</p>
<p><i>As varied on the date this instrument was signed</i></p>	<p>Suitably qualified ecologist (for the purpose of preparing and implementing environmental management plans and undertaking surveys) means a person who has relevant professional qualifications and at least 3 years of work experience designing and implementing surveys for Gang-gang Cockatoo, Yellow-bellied Glider and Long-nosed Potoroo, and has work experience designing and implementing conservation land management plans and has demonstrated their capability in achieving specified environmental outcomes and habitat quality uplift through conservation land management.</p>
<p><i>As varied on the date this instrument was signed</i></p>	<p>Suitably qualified expert - Revoked.</p>
<p><i>As varied on the date this instrument was signed</i></p>	<p>Suitably qualified person-- Revoked.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>Yellow-bellied Glider habitat means foraging, potential denning and/or breeding habitat as described in the <i>Approved Conservation Advice for <u>Petaurus australis australis</u> (yellow-bellied glider (south-eastern))</i>, dated 2 March 2022 or later updated version.</p>
<p><i>Original dated 17/01/2024</i></p>	<p>Yellow-bellied Glider means the EPBC Act listed species <i>Petaurus australis australis</i>.</p>

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Attachments

date of decision Annexure A

Original dated 17/01/2024 **Attachment 1: Maps showing location of proposed Colac Pipeline Upgrade sections.**

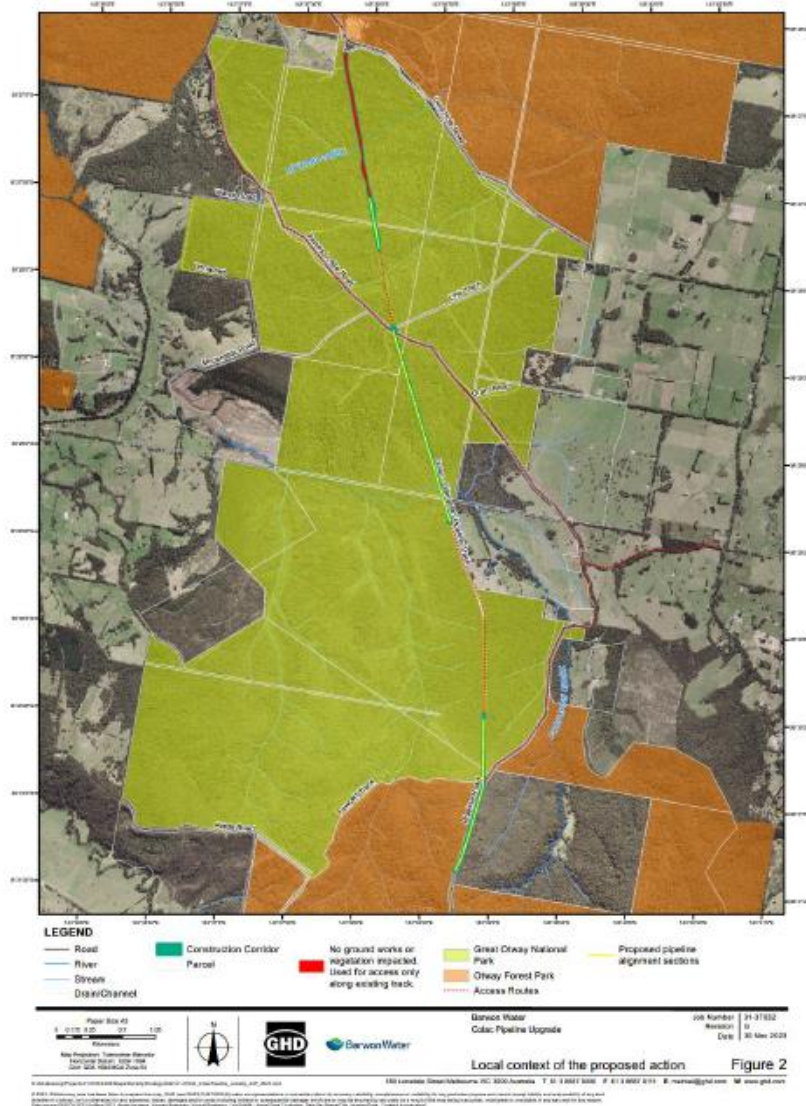


Figure 1: Overall map showing location of proposed Colac Pipeline Upgrade sections.

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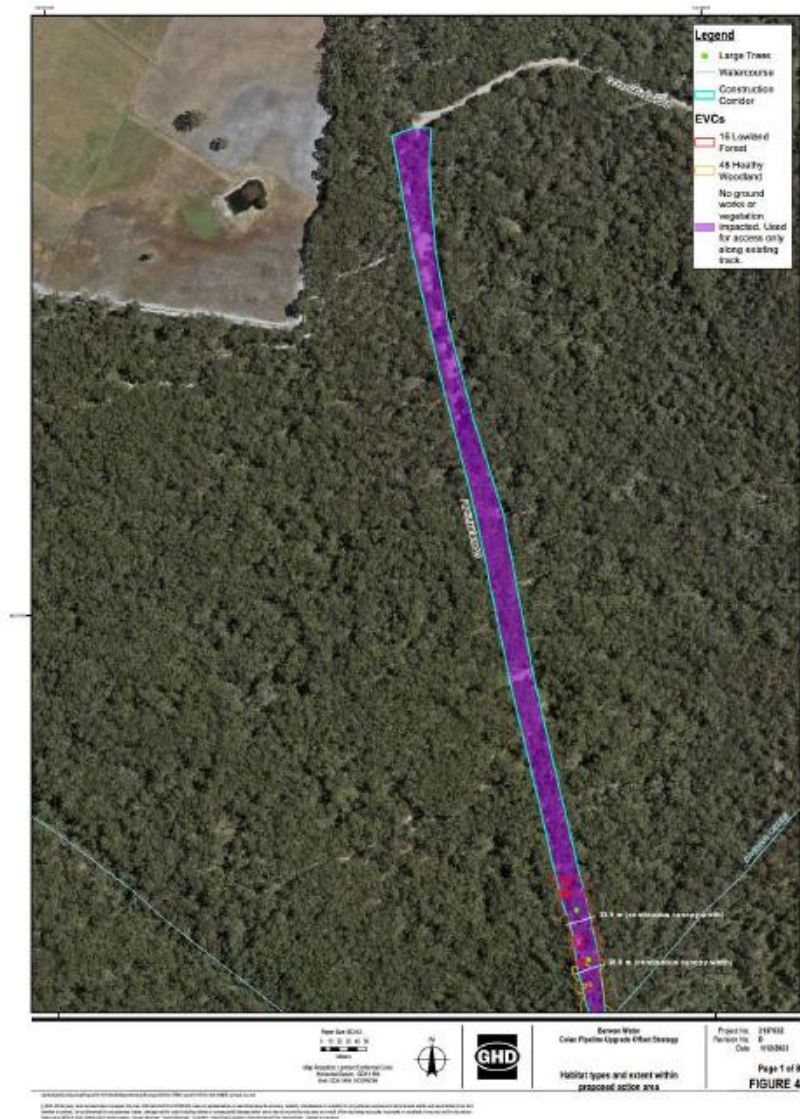


Figure 2 Map showing start of section 25i (not impacted).

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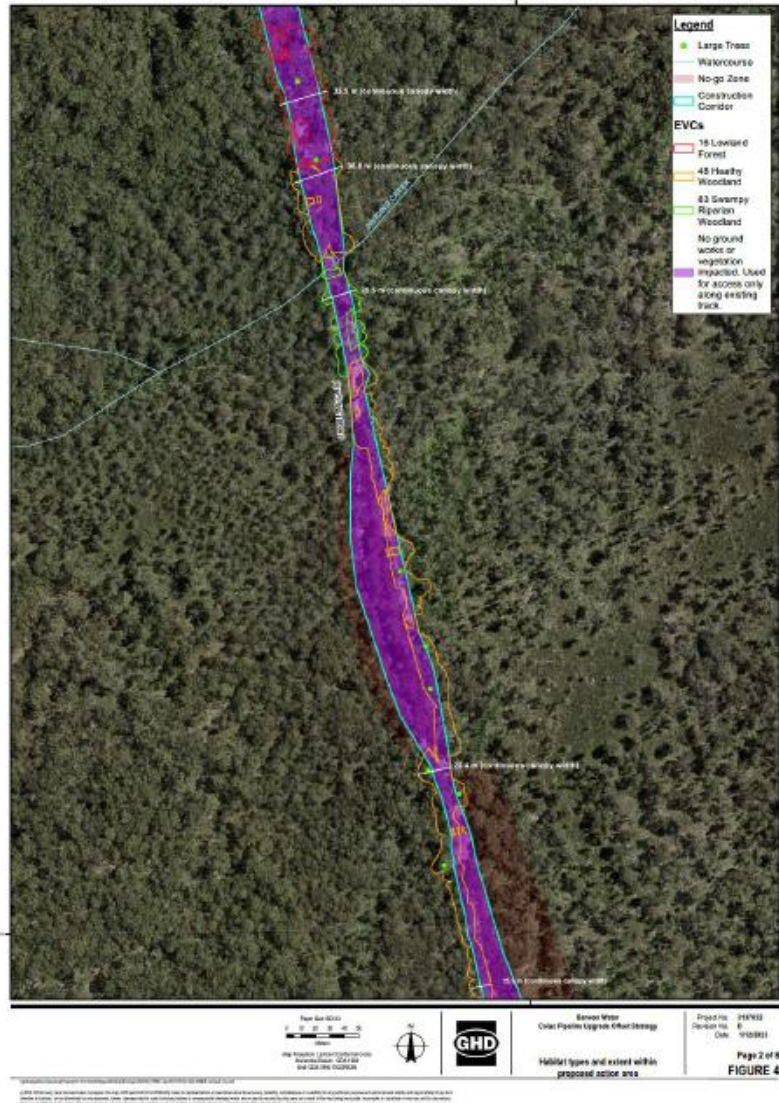


Figure 3: Map showing middle section of 25i of Colac Pipeline Upgrade (not impacted).

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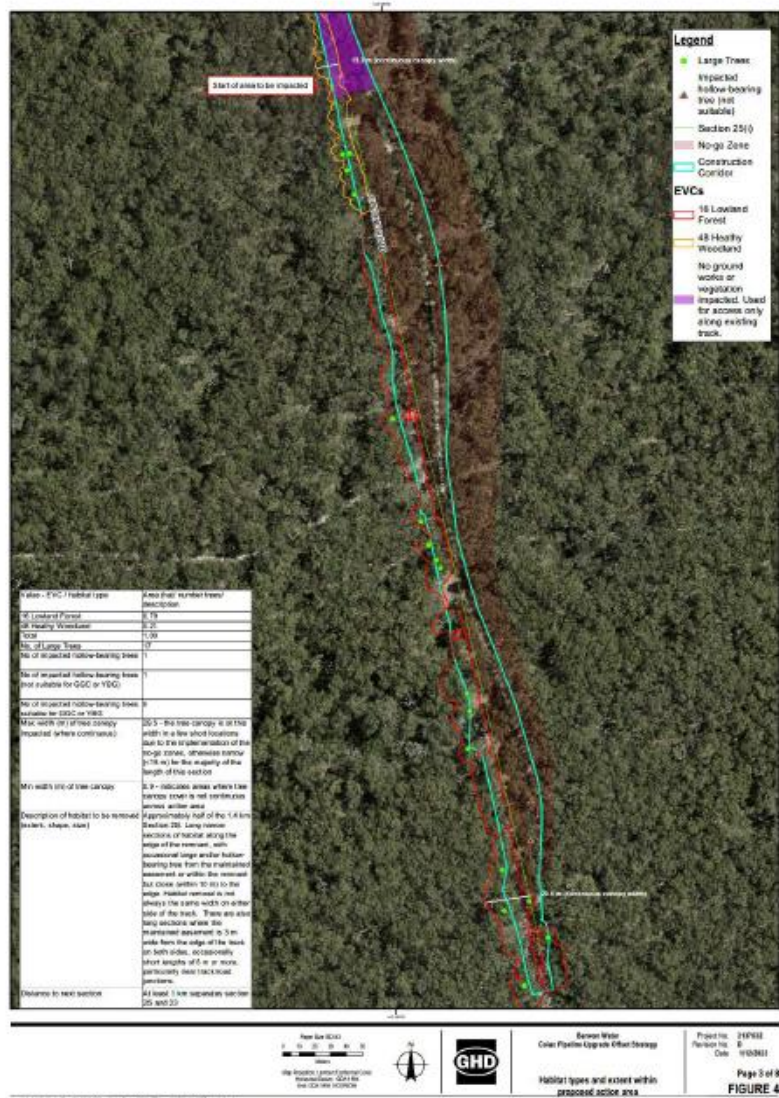


Figure 4: Map showing the end section of 25i (not impacted) and impact area of the start and end of section 25i of the Colac Pipeline Upgrade.

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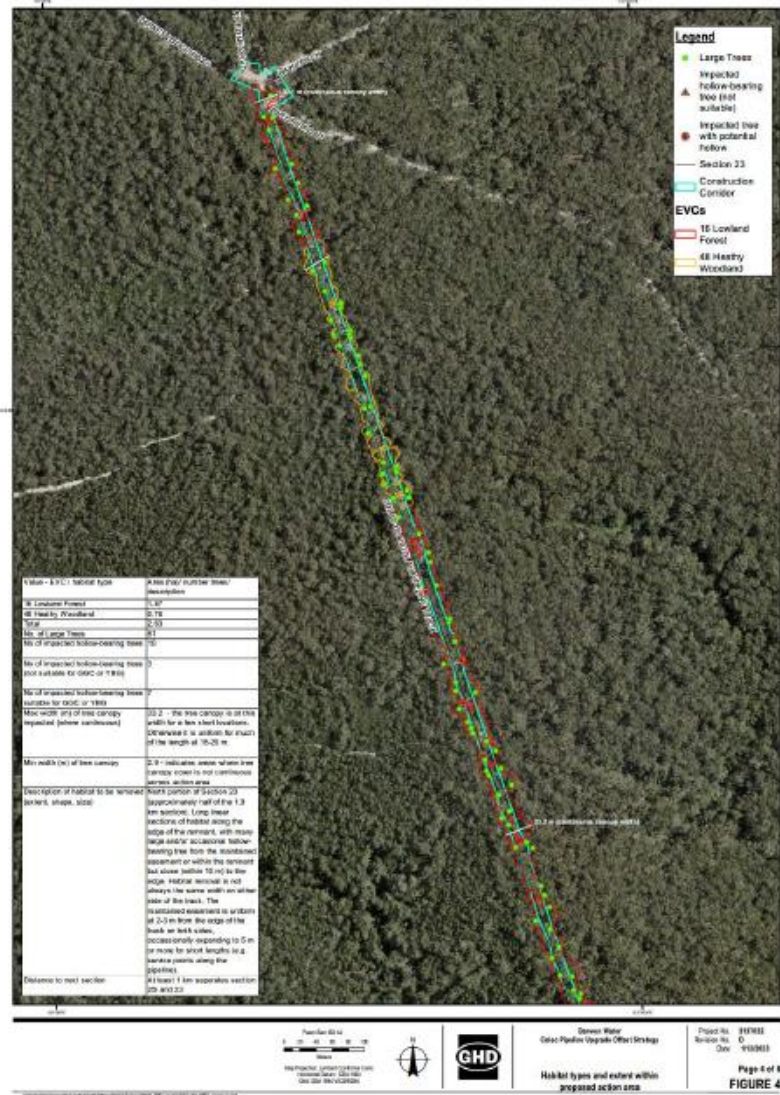


Figure 5: Map showing the impact area of the start of section 23 of the Colac Pipeline Upgrade.

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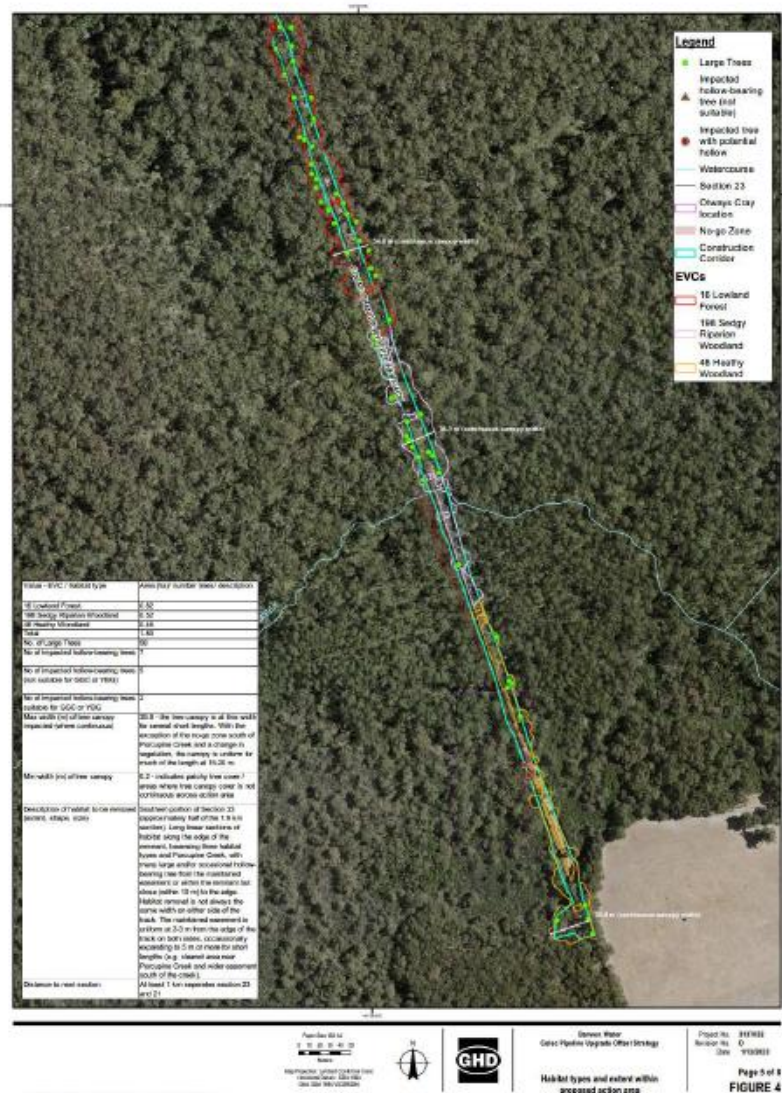


Figure 6: Map showing the impact area of the end section 23 of the Colac Pipeline Upgrade.

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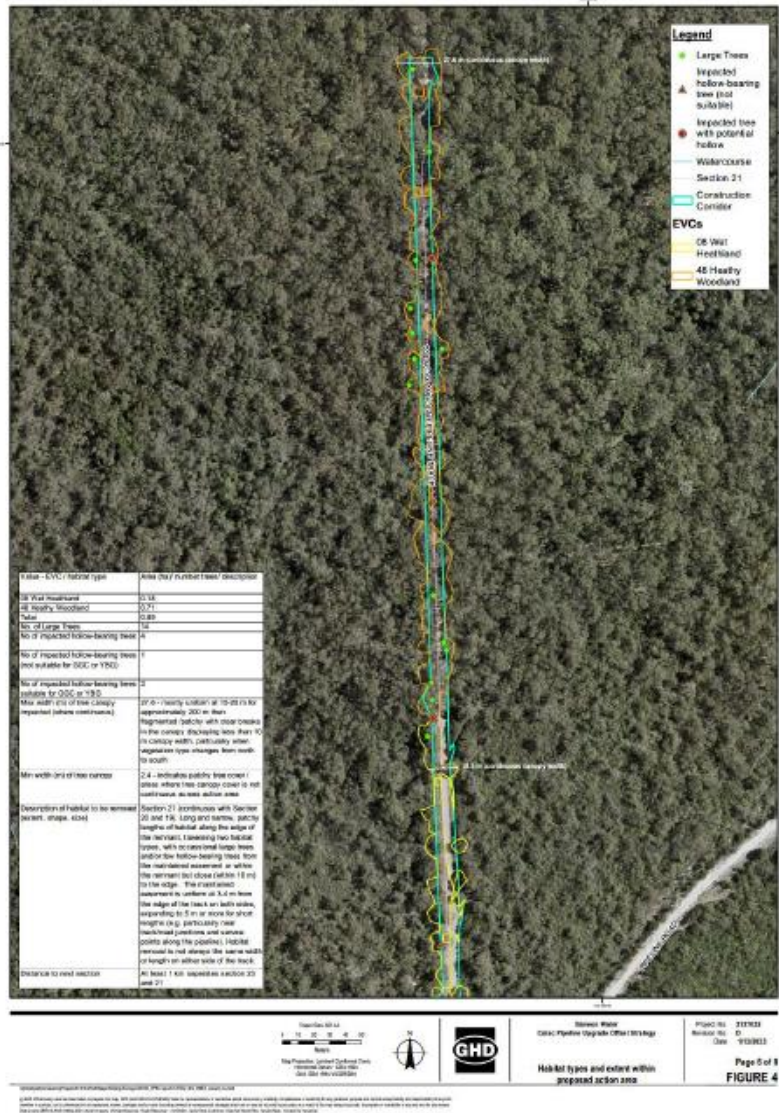


Figure 7: Map showing the impact area of the start of impact from section 21 of the Colac Pipeline Upgrade.

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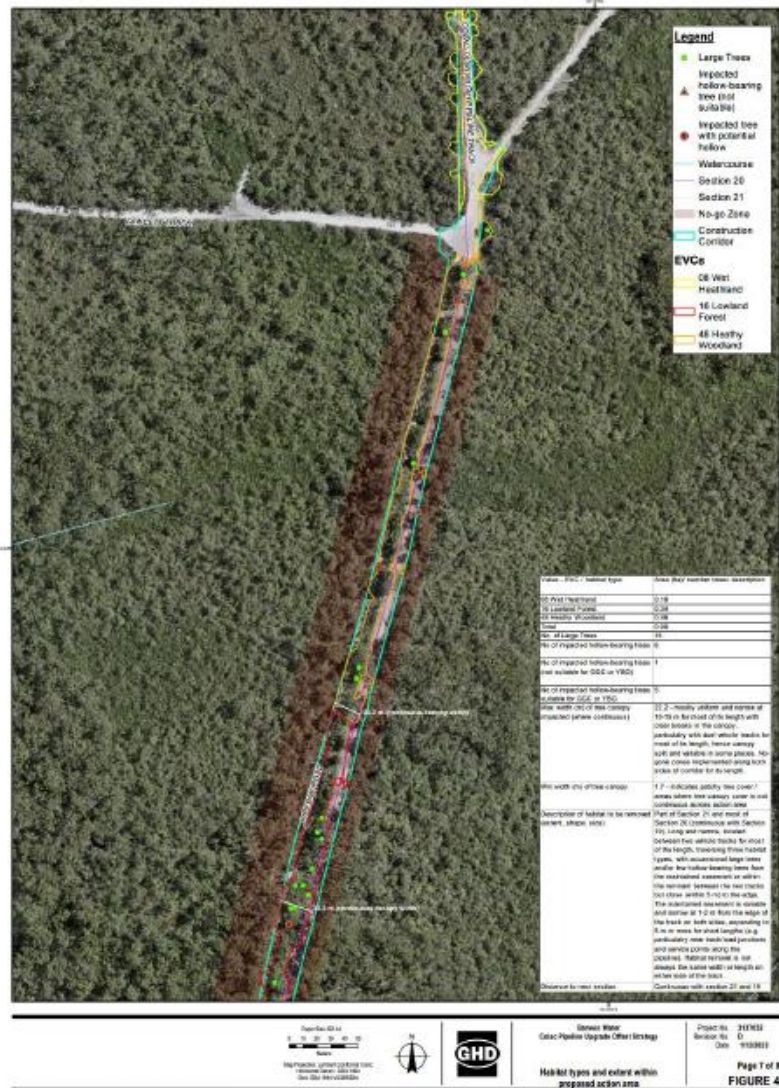


Figure 8: Map showing impact area of the end of section 21 and section 20 of the Colac Pipeline Upgrade.

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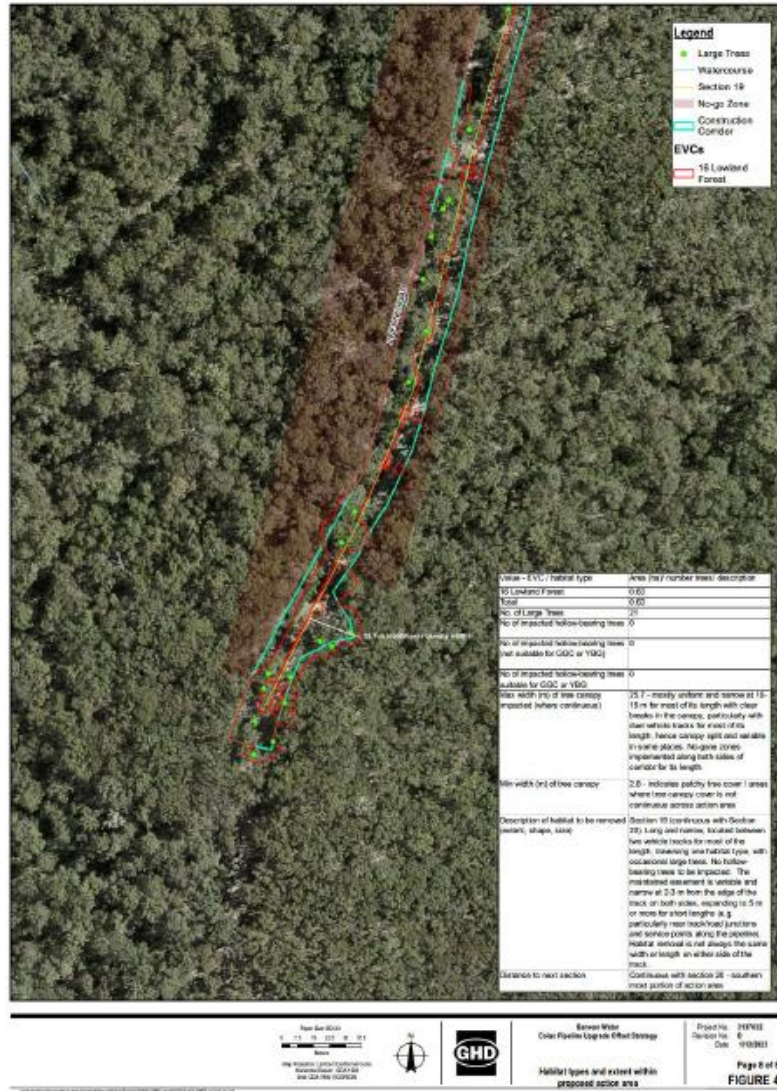


Figure 9: Map showing impact area of section 19 of the Colac Pipeline Upgrade.

Attachment 2: Offset Strategy (source: GHD Ver 5, March 2026)

Offsets Assessment Guide

For use in determining offsets under the Environment Protection and Biodiversity Conservation Act 1999
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Gang-gang Cuckatoo
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator						
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
<i>Ecological communities</i>						
Area of community	No		Area			
			Quality			
			Total quantum of impact	0.00		
<i>Threatened species habitat</i>						
Area of habitat	Yes	Foraging, and potential roosting and breeding habitat	Area	7.31	Hectares	
			Quality	7	Scale 0-10	
			Total quantum of impact	5.12	Adjusted hectares	
<i>Threatened species</i>						
Protected matter attributes						
Number of features e.g. Nest hollows, habitat trees						
Condition of habitat Change in habitat condition, but no change in extent						
Birth rate e.g. Change in nest success						
Mortality rate e.g. Change in number of road kills per year						
Number of individuals e.g. Individual plants/animals						

Offset calculator																				
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source	
<i>Ecological Communities</i>																				
Area of community	No				Risk-related time horizon (max. 20 years)	Start area (hectares)	Risk of loss (%) without offset		Risk of loss (%) with offset											
							Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0										
							Time until ecological benefit		Start quality (scale of 0-10)		Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)							
<i>Threatened species habitat</i>																				
Area of habitat	Yes	5.12	Adjusted hectares	450 Morris Track	Time over which loss is averted (max. 20 years)	20	Start area (hectares)	33.01	Risk of loss (%) without offset	0%	Risk of loss (%) with offset	0%								
									Future area without offset (adjusted hectares)	33.0	Future area with offset (adjusted hectares)	33.0								
									Time until ecological benefit	10	Start quality (scale of 0-10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	9				
Protected matter attributes																				
Number of features e.g. Nest hollows, habitat trees																				
Condition of habitat Change in habitat condition, but no change in extent																				
Birth rate e.g. Change in nest success																				
Mortality rate e.g. Change in number of road kills per year																				
Number of individuals e.g. Individual plants/animals																				

Summary							
Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost (\$)		
					Direct offset (\$)	Other compensatory measures (\$)	Total (\$)
Birth rate	0				\$0.00		\$0.00
Mortality rate	0				\$0.00		\$0.00
Number of individuals	0				\$0.00		\$0.00
Number of features	0				\$0.00		\$0.00
Condition of habitat	0				\$0.00		\$0.00
Area of habitat	5.117	5.57	108.79%	Yes	\$0.00	N/A	\$0.00
Area of community	0				\$0.00		\$0.00
					\$0.00	\$0.00	\$0.00

**Attachment 3: Department of Energy, Environment and Climate Action,
Native Vegetation Offset Register, Annual Report Monitoring template
– southern half of 450 Morris Track, Lavers Hill**

Annual Reporting Template for CW_CFL-3804_01

Landowner name: **Barwon Region Water Corporation**

Management year: #

Completed by: #####

Date: #####

<Instructions / guidance:

This document is a template for the landowner preparing an annual report and has been designed specifically for your landowner agreement.

This report includes sections for recording Site Visits (Work Log), for outlining observations during site monitoring, and for outlining actions undertaken.

Most sections of the annual report are split into two sections

- 1) **Monitoring** (observations) undertaken by the landowner (or appointed personnel); and,
- 2) **Actions** undertaken by the landowner (or appointed personnel); Actions undertaken by the landowner should be informed by the monitoring/observations (e.g. If rabbits were observed in X zone, control should be undertaken in X zone).

Green text provides an example of the type and detail of information that you should provide in your annual report and may assist in understanding reporting structure. Green text must be deleted and replaced with information relating to the past year of management.

For more detail on Department of Energy, Environment and Climate Action (DEECA) native vegetation offset standards for management refer to the publication – *Management standards for native vegetation offset sites (September 2019) or its successor, Department of Environment, Land, Water and Planning*. Available on the DEECA website:

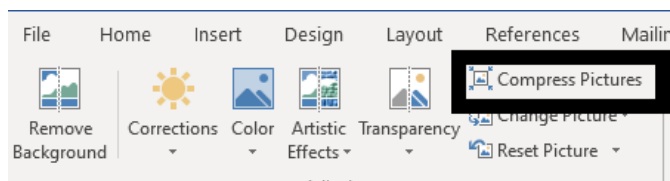
https://www.environment.vic.gov.au/__data/assets/pdf_file/0028/435187/Management-standards-for-native-vegetation-offset-sites-V1.0-23092019.pdf

Refer to your management plan for details about your required management actions. Provide at least one piece of evidence per management action/commitment in the management plan.

As part of your annual reporting requirements, complete this template and email to Nativevegetation.offsetmanagement@delwp.vic.gov.au by the anniversary of your agreement commencement date.

You will probably need to compress your pictures to allow your email server to send the documents (see figure below). Individual photos are to be representative of management for other similar infestations across the site and show reference background to identify comparison photos at different times

Also save this word document as a PDF prior to emailing to further reduce the file size.



Work Log

Outline all visits to the sites conducted by the landowner/manager/contractor, including monitoring and works

Monitoring commitment: Monitor the whole of the site at least once per season during the management year, or more often if threats are observed or if your site experiences significant changes in conditions (e.g. flooding or high rainfall). General monitoring of the sites involves walking over a large percentage of the sites so that the landholder/staff know where threats are and the general level/cover of the threat

Have the sites have been monitored at least once per season?

Yes/No

Visit	Date	Season	Reason (Monitoring or Management)	Area of site covered/time taken	Focus/Comment
1	7/9/24	Spring	Monitoring	Traversed whole site – 6hrs Meeting with PV, DEECA, FFMV – 1 hr	General monitoring for all threats, meet with PV, DEECA and FFMV to discuss fire protection for the offset site
2	12/9/24	Spring	Both	Whole site – 5hrs	Deer control – camera trap for deer and shooting
3	28/09/24	Spring	Monitoring	Whole site – 4 hrs	Deer shooter collected deer camera traps - on site spot audit of contractor weed and Cinnamon Fungus inductions and hygiene protocols
4	23/10/24	Spring	Management	All internal tracks – 1hr	Fox control, weed control
5	26/10/24	Spring	Management	Entire site – 6hrs	Deer control
6	5/11/24	Spring	Both	Whole site – 3hrs	Check spraying results and follow up control
7	15/11/24	Spring	Management	Whole site – 3hrs	Deer control
8	25/11/24	Spring	Management	Whole site – 4hrs	Fox control
9	30/11/24	Spring	Management	Both waterways – 4hrs	Check for erosion area after heavy rains, weed control
10	21/12/24	Summer	Monitoring	Traversed whole site – 3hrs	General monitoring for all threats and unauthorised access
11	25/12/24	Spring	Management	Whole site – 3hrs	Deer control
12	28/12/43	Summer	Management	Whole Site – 7hrs	Fox control

Work Log

Outline all visits to the sites conducted by the landowner/manager/contractor, including monitoring and works

Monitoring commitment: Monitor the whole of the site at least once per season during the management year, or more often if threats are observed or if your site experiences significant changes in conditions (e.g. flooding or high rainfall). General monitoring of the sites involves walking over a large percentage of the sites so that the landholder/staff know where threats are and the general level/cover of the threat

Have the sites have been monitored at least once per season?

Yes/No

Visit	Date	Season	Reason (Monitoring or Management)	Area of site covered/time taken	Focus/Comment
13	14/1/25	Summer	Monitoring	Whole Site – 4hrs	Fox control, deer control, cat trapping – on site spot audit of contractor weed and Cinnamon Fungus inductions and hygiene protocols
14	15/1/25	Summer	Management	Entire site – 3hrs	Weed control, check for early summer germinants
15	15/2/25	Summer	Management	Whole Site – 4hrs	Check spraying results, fox control, deer control – camera traps and shooting
16	12/3/25	Autumn	Monitoring	Traversed whole Site – 3hrs	General monitoring for all threats, fox control
17	20/03/25	Autumn	Management	Northern boundary on spur track – 2 days	Wooden gate was destroyed by fallen tree so replace with a locked steel gate

Work Log

Outline all visits to the sites conducted by the landowner/manager/contractor, including monitoring and works

Monitoring commitment: Monitor the whole of the site at least once per season during the management year, or more often if threats are observed or if your site experiences significant changes in conditions (e.g. flooding or high rainfall). General monitoring of the sites involves walking over a large percentage of the sites so that the landholder/staff know where threats are and the general level/cover of the threat

Have the sites have been monitored at least once per season?

Yes/No

Visit	Date	Season	Reason (Monitoring or Management)	Area of site covered/time taken	Focus/Comment

Fencing – monitoring (observations)

Outline observations from site visits conducted by the landowner/manager

Management actions/commitments: Monitor for damage to fences, access or potential access to the site(s) by stock or public, at least quarterly (i.e. four times per year).

	Season ⁸			
	Spring	Summer	Autumn	Winter
Are all gates, and any fencing, signs and cameras intact and are all gates secure?	No. A branch fell on the wooden gate at the northern end of the offset site on the I spur track destroying the gate.	Yes, fencing remains intact following removal of fallen tree and associated fencing repairs	Yes	Yes
Were unauthorised people and vehicles excluded from the site this quarter?	Yes	Yes	Yes	Yes
Were any new threats identified?	No		No	

⁸ Order of seasons should be based on the date the landowner agreement commenced (i.e. If the landowner agreement was signed in spring, then the first quarter is spring)

Fencing – actions

Outline actions conducted by the landowner/manager during the management year

Management actions/commitments: Threats including stock must always be excluded from the site/s unless part of biomass management included in the management plan. Follow DEECA management standards⁹ if fencing is installed, replaced or repaired.

Management actions/commitments	Location & length	Timing	Action complete (yes/no)	Date/s completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
Maintain any existing fencing/gates.	The spur track entrances and western boundary along Morris Track	When required	Yes	20-21 March 2025	Broken gate replaced with steel, locked gate	A large branch from a Messmate Stringybark fell on the wooden gate on the spur track beyond the northern boundary of the offset site	Invoice for fence repair materials and labour, and before and after photos.
If unauthorised access is detected, install signage at either end of the spur track, and fake security cameras if required. Install rocks beside gates to prevent illegal access around gates	The spur track entrances and western boundary along Morris Track	When required	n/a				
If unauthorised access occurs from Morris Track on the western offset site boundary, install fencing and maintain in good condition good condition, meeting DEECA standards at a minimum (including no barb wire).	Along the Morris Track the full length of the western offset site boundary – approximately 790 m	When required	n/a				

Were stock and unauthorised human access excluded from the site this year? If not, provide comments. *Yes., no signs of unauthorised entry were observed.*

⁹ Management standards for native vegetation offset sites (August 2025), Department of Environment, Land, Water and Planning

Woody weeds – monitoring (observations)

Outline observations from site visits conducted by the landowner/manager

Management actions/commitments: Monitor abundance and for new and emerging weeds at least quarterly

	Season ¹⁰			
	Spring	Summer	Autumn	Winter
Which woody weed species were observed?	*Common Blackberry	*Common Blackberry	*Common Blackberry	*Common Blackberry
Are there any mature woody weeds present? If so, which species?	None	None	None	None
Are any seedlings or re-sprouting woody weeds present? If so, which species?	Yes, there are a few scattered seedlings of *Common Blackberry near and along tracks	Yes, there are a few scattered seedlings of *Common Blackberry near and along tracks	Yes, there are a few scattered seedlings of *Common Blackberry near and along tracks	Yes, there are a few scattered seedlings of *Common Blackberry near and along tracks
Are any new and emerging woody weeds detected, and if so of what species?	None seen	None seen	None seen	None seen

¹⁰ Order of seasons should be based on the date the landowner agreement commenced (i.e. If the landowner agreement was signed in spring, then the first quarter is spring)

Total % cover of woody weeds		
(initial site assessment date – 24-26 June 2024) Date this cover estimate was done: 15 June 2025		
Site/Zone	Original cover of woody weeds (at original site assessment) ¹¹	Observed cover this management year
1A	<1	<1%
1B	<1	<1%
1C	<1	<1%
2A	<1	<1%
2B	<1	<1%
2C	<1	<1%
2D	<1	<1%

¹¹ Cover is the percentage of the site or zone area that would be under a shadow cast by the foliage of woody weeds if the sun was directly above. If estimating percent cover (preferred method) is not possible, then state if cover is increasing, decreasing or stable relative to the cover at the time of the original assessment. Where possible estimate cover at approximately the same time of the year as the original site assessment.

Woody weeds – actions

Outline actions conducted by the landowner/manager during the management year

Management actions/commitments: Eliminate all woody weeds listed in Table 5 of the management plan to <1% cover with no mature plants by the end of the fifth year of management. Use methods described in Table 5. New and emerging woody weeds eliminated to <1% cover with no mature plants.

Standards: Follow DEECA management standards. Indigenous plants should not be impacted during treatment. Monitor for any re-sprouting or seedlings and eliminate to <1% either by spot spraying or hand pulling.

Species/management actions	Timing	Sites / Zones	Action completed (yes/no)	Date/s completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
Common Blackberry <i>*Rubus anglocandicans</i> -cut and paint, spot spray, wick wipe	Late spring, early summer	Entire site	Yes	23 October 2024, 30 November 2024, 15 January, 2025	Sprayed multiple small plants along Morris Track edge and a couple of scattered plants downslope towards the western drainage line. Used (insert name) herbicide registered for use in aquatic situations and applied at (insert application rates)	Over 30 small plants have been controlled. There are occasional small plants along the western drainage and line and up slope towards Morris Track. Some plants resprouting, will need to be vigilant and undertake repeat control visits to ensure that plants do not mature and spread. The year 1 target should be met.	Worklogs, tracklogs, photos, herbicide invoice which includes name of herbicide, photographs
Add any new and emerging woody weeds found since the management plan was completed							

Herbaceous and grassy weeds – monitoring (observations)

Outline observations from site visits conducted by the landowner/manager (e.g. weed distribution and abundance, effectiveness of past control)

Management action/commitments: Monitor weeds at least quarterly, and especially after periods of high rainfall.

	Season ¹²			
	Spring	Summer	Autumn	Winter
High threat weeds: Sweet Vernal-grass * <i>Anthoxanthum odoratum</i> , Spear Thistle * <i>Cirsium vulgare</i> , Montbretia * <i>Crocosmia X crocosmiiflora</i> , Cocksfoot * <i>Dactylis glomerata</i> , Flatweed * <i>Hypochaeris radicata</i> Self-heal * <i>Prunella vulgaris</i>	All weeds still present, but cover decreasing – No plants of Montbretia were seen, appear to have been eliminated	Scattered weeds present	Scattered weeds present	Scattered weeds present, some new germinants observed, constant follow up control required
Other: * <i>Agrostis sp.</i> , * <i>Cardamine hirsuta</i>	Scattered plants of both species persist – all plants observed were treated	Cover of both weed species decreasing	Most species dormant. No new issues identified	No issues identified
New/emerging weeds detected previous years: None	No new herbaceous weeds were detected	No new herbaceous weeds were detected	No new herbaceous weeds were detected	No new herbaceous weeds were detected
New/emerging weeds detected this year:	No new herbaceous weeds were detected	No new herbaceous weeds were detected	No new herbaceous weeds were detected	No new herbaceous weeds were detected

¹² Order of seasons should be based on the date the landowner agreement commenced (i.e.. If the landowner agreement was signed in spring, then the first quarter is spring)

Total (%) cover of herbaceous and grassy weeds

(initial site assessment date 24-26 June 2024) Date this weed cover estimate was done: 15 June 2025

Zone	<i>All herbaceous and grassy weeds (including high threat species)</i>		<i>High threat herbaceous and grassy weeds</i>	
	Original cover (%)	Observed cover this management year (%) ¹³	Original cover (%)	Observed cover this management year (%)
1A	<1	<1%	1A	<1
1B	<1	<1%	1B	<1
1C	<1	<1%	1C	<1
2A	<1	<1%	2A	<1
2B	<1	<1%	2B	<1
2C	<1	<1%	2C	<1
2D	<1	<1%	2D	<1

¹³ Cover is the percentage of the zone area that would be under a shadow cast by the foliage of herbaceous and grassy weeds if the sun was directly above. If estimating percent cover (preferred method) is not possible, then state if cover is increasing, decreasing or stable relative to the cover at the time of the original assessment. Where possible estimate cover at approximately the same time of the year as the original site assessment.

Herbaceous and grassy weeds - actions

Outline actions conducted by the landowner/manager during the management year

Management action/commitments: All high threat herbaceous (including grassy) weeds listed in Table 7 and Table 8 of the management plan must be eliminated to <1% cover by the end of the 10th year of management using the methods outlined in Table 7 and Table 8. Ensure that weed cover does not increase beyond current levels.

Undertake control of weeds annually to ensure their cover does not increase. Prioritise control of high threat weeds, new/emerging weeds and species increasing in cover.

Standards: Follow DEECA management standards. Treat weeds before plants flower and set seed. Indigenous plants should not be impacted during treatment. It is better to work on less dense infestations first and where infestations may impact important biodiversity or landscape features.

Weed type	Species/management actions	Timing	Sites / Zones	Action completed - yes/no	Date/s treated	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
High threat	Sweet Vernal-grass * <i>Anthoxanthum odoratum</i> , Spear Thistle * <i>Cirsium vulgare</i> , Montbretia * <i>Crocsmia X crocosmiiflora</i> , Cocksfoot * <i>Dactylis glomerata</i> , Flatweed * <i>Hypochaeris radicata</i> Self-heal * <i>Prunella vulgaris</i> Actions: Handpull, spot spray, wick wipe	Spring, summer	Entire site	Yes	23 October 2024, 30 November 2024, 15 January,2025	Hand pulled *Montbretia, spot sprayed weeds along the spur track, wick wiped weeds in gullies near waterways to reduce risk off target damage and spray drifting into waterways Used (insert name) herbicide registered for use in aquatic situations and applied it at (insert application rates)	*Montbretia hand pulled, bulbs removed, will need to monitor for new growth in case some bulbs remain Perennial grasses resprouting, will need several years of treatment to kill them. Flatweed seeding, will need to maintain ongoing control	Worklogs, tracklogs, photos, herbicide invoice which includes name of herbicide, photos
Other	Species: * <i>Agrostis</i> spp., * <i>Cardamine hirsuta</i> Actions: Spot spray/wick wipe	Spring, summer	Entire site	Yes	23 October 2024, 30 November 2024, 15 January,2025	Agrostis identified as a weed – spot sprayed along tracks Cardamine hand pulled along waterways to avoid use of chemical near water	There were only a few scattered plants of Cardamine, will keep monitoring for germinants	

Add any new and emerging woody weeds found since the management plan was completed

New and emerging	None								Map of GPS tracks to show areas of site monitored.
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Pest animals – monitoring (observations)

Outline observations from site visits conducted by the landowner/manager (e.g. Evidence of disturbance, abundance)

Management action/commitments: Monitor pest animals at least quarterly

	Season ¹⁴				Are abundance and impacts at negligible levels?
	Spring	Summer	Autumn	Winter	
Rabbits	No current evidence of rabbits observed	During annual pest monitoring, no warrens, diggings or latrines found in the site. Deer controller did not report seeing any rabbits while undertaking deer control and camera trapping.	No current evidence of rabbits observed	No current evidence of rabbits observed	Yes
Foxes	No evidence of foxes	<p>No fox dens were found, one scat was found in the site. Deer controller did not report seeing any foxes while undertaking deer control and camera trapping.</p> <p>Some baits are being taken but no dead foxes found.</p> <p>Annual camera trapping captured an image of one fox in total across the site</p> <p>Parks Victoria are looking to expand fox control to include neighbouring National Park which should assist with fox control in the area.</p>	No evidence of foxes	No evidence of foxes	Yes
New/emerging pests detected previous years: None	n/a	n/a	n/a	n/a	n/a
New/emerging pests detected this year:	No new pests were detected	No new pests were detected	No new pests were detected	No new pests were detected	n/a

¹⁴ Order of seasons should be based on the date the landowner agreement commenced (i.e.. If the landowner agreement was signed in spring, then the first quarter is spring)

Pest animals – actions

Standards: Reduce abundance and impacts to negligible levels. Follow DEECA management standards. Monitoring and control should be done throughout the year. Increase monitoring frequency if pest animal activity is high. For rabbits use an integrated approach including fumigation, hand collapsing of burrows and baiting or shooting. For foxes fumigate and hand collapse dens. Remove carcasses to prevent poisoning of native predators. Ensure that native animals are not using burrows before fumigating and collapsing burrows.

Sites/Zones	Common name	Method	Timing	Action completed - yes/no	Dates completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
All	Rabbits	Control if evidence of rabbits detected. Baiting, shooting (and fumigation, and hand collapse warrens if present).	Ongoing	n/a – no rabbits or evidence of rabbits on site				
All	Foxes	Monthly baiting program continuing. If evidence of foxes detected increase frequency of baiting, undertake shooting, and fumigation, and hand collapse dens found on site.	Ongoing	Yes	23 October 2024 25 November 2024 28 December 2024 14 January 2025 15 February 2024	Replacement of fox baits (insert chemical name and amount) each month each month,	Minimal fox activity found (no scats, one fox image captured during camera trapping by deer controller. Annual camera trapping for threats will be shortly by an ecologist	Worklog, tracklogs, photos, fox baiting contractors' invoice
All	New and emerging pest animals	Control if found	As required	n/a	n/a	-	No new pests observed, no control action required	

Control all high threats – Monitoring (observations)

Outline observations from site visits conducted by the landowner/manager (e.g. Evidence of disturbance, abundance)

Management action/commitments: Monitor threats at least quarterly; Reduce abundance/impacts to negligible levels

	Season ¹⁵ :				Abundance/threat reduced to negligible levels?
	Spring	Summer	Autumn	Winter	
Deer:	Fresh deer tracks observed across the drainage line near Morris Track	Six old deer scats found along the spur track, no other evidence seen. Deer controller reported finding two deer on deer camera traps and shooting two deer earlier in the year during quarterly site visit none have been seen since Christmas. Annual camera trapping to be undertaken shortly by ecologist	Fresh deer scats and game trails observed entering site in several locations along Morris Track	Evidence of deer browsing observed on shrubs along the central spur track	No. Still working towards this target. Aiming to shoot more frequently next year
Cats	No cats observed in the offset site	Three cats were recorded during deer camera trapping, all without collars on. No native animals were trapped.	Three wild cats were trapped during cat trapping and taken to the Colac Pound	One cat observed in the offset site	No. Cat trapping was undertaken in summer at the commencement of the OMP and will continue next year in late Autumn to early winter
Unauthorised access	New gate installed to replace old wooden gate damaged by a fallen tree was in good working order. No evidence of unauthorised access	No evidence of unauthorised access	No evidence of unauthorised access	No evidence of unauthorised access	Yes
Fire	No evidence of fire observed – PV and DEECA contacted and discussed importance of protecting the offset site	No evidence of fire	No evidence of fire	No evidence of fire	Yes – will contact PV and DEECA again next year as an annual reminder of the presence and location of the offset site and the need to protect it
Macropod overgrazing/overbrowsing	No evidence of macropod overgrazing/overbrowsing observed,	No evidence of macropod overgrazing/overbrowsing observed,	No evidence of macropod overgrazing/overbrowsing observed,	No evidence of macropod overgrazing/overbrowsing observed,	Yes

¹⁵ Order of seasons should be based on the date the landowner agreement commenced (i.e. If the landowner agreement was signed in spring, then the first quarter is spring)

Control all high threats – Monitoring (observations)

Outline observations from site visits conducted by the landowner/manager (e.g. Evidence of disturbance, abundance)

Management action/commitments: Monitor threats at least quarterly; Reduce abundance/impacts to negligible levels

	Wallaby tracks evident along Morris Track leading into the offset site				
Flooding and erosion	No areas of erosion noted.	No areas of erosion noted.	No areas of erosion noted.	No areas of erosion noted.	Yes
Cinnamon Fungus	<p>No evidence of Cinnamon Fungus observed</p> <p>Signed site inductions including cleaning protocols for Cinnamon Fungus have been provided to Barwon</p> <p>Water by all contractors (weed control, pest animal control, ecologists)</p> <p>Spot audit of weed controller undertaken and hygiene protocols were being followed</p>	<p>No evidence of Cinnamon Fungus observed</p> <p>Signed site inductions including cleaning protocols for Cinnamon Fungus have been provided to Barwon Water by all contractors (weed control, pest animal control, ecologists)</p>	<p>No evidence of Cinnamon Fungus observed</p> <p>Signed site inductions including cleaning protocols for Cinnamon Fungus have been provided to Barwon Water by all contractors (weed control, pest animal control, ecologists)</p> <p>Spot audit of pest animal controller undertaken and hygiene protocols were being followed</p>	<p>No evidence of Cinnamon Fungus observed</p> <p>No contractors on site during winter</p>	Yes – spot audits of ecologists will be undertaken next year
Other new and emerging threats	No new or emerging threats identified	No new or emerging threats identified	No new or emerging threats identified	No new or emerging threats identified	Yes

Control all high threats – actions

Standards: Control all high threats to maintenance and improvement of native vegetation condition, including, but not limited to the following. Reduce presence, activity and disturbance of introduced animals to negligible levels. Control native herbivores to the extent necessary to ensure improvements in vegetation condition including tree canopy and understorey cover, diversity and recruitment results. Control erosion.

Sites/Zones	Threat	Method	Timing	Action completed - yes/no	Dates completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
All	Deer	<p>Shooting</p> <p>Camera trapping (undertaken by deer shooter) to identify areas of high deer activity to direct shooting efforts.</p> <p>Annual general threat camera trapping will be undertaken shortly by an ecologist</p>	Ongoing	Yes	<p>12 September 2024</p> <p>26 October 2024</p> <p>15 November 2024</p> <p>25 December 2024</p> <p>14 January 2025</p>	<p>Shooting</p> <p>2 fallow deer shot each month in spring</p> <p>Carcasses removed</p>	<p>Deer camera trapping captured the most images of deer along the western creek line – 5 fallow deer were seen at the southern end and 3 fallow deer were seen at the northern end in spring.</p> <p>Three deer seen along the spur track during quarterly site monitoring in spring.</p> <p>2 fallow deer shot each month in spring</p> <p>No deer captured on cameras elsewhere.</p> <p>No evidence or images of deer seen since summer began so will decrease shooting to every 3 months and keep monitoring</p>	<p>Photos, map of camera locations, GPS tracks of shooters route and shooting locations emails from deer shooter with shooting dates and length of time spent shooting</p> <p>Shooters invoice</p>
All	Cats	Trapping	Ongoing	Yes	14 - 28 March 2025	<p>Baited (inert bait type) cat traps set out for 14 days and checked twice a day by a qualified, experienced pest controller experienced in handling and releasing native animals from traps.</p> <p>Traps were set out along the spur track,</p>	<p>3 cats were captured, all were wild, cats were taken to the Colac Otway animal pound to be euthanised</p> <p>Cat trapper will place two traps along Morris Track next year.</p> <p>Will wait to see if annual camera trapping for threats captures any more cats on camera and where they were located</p>	<p>Photos, receipt from pound, emails from cat controller, worklog</p> <p>Cat trappers' invoice</p>

Control all high threats – actions

Standards: Control all high threats to maintenance and improvement of native vegetation condition, including, but not limited to the following. Reduce presence, activity and disturbance of introduced animals to negligible levels. Control native herbivores to the extent necessary to ensure improvements in vegetation condition including tree canopy and understorey cover, diversity and recruitment results. Control erosion.

Sites/Zones	Threat	Method	Timing	Action completed - yes/no	Dates completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
						5 m off the side of the track in the bush		
All	Unauthorised access	Interpretive signage, fake security cameras, fencing along Morris Track/offset site boundary, large rocks placed to block access around the side of gates as required	Ongoing				No action required as there was no evidence of unauthorised entry	
All	Inappropriate fire regime	Liaise with PV, DEECA and FFMV to discuss the importance of protecting the offset site from fire	Annually at the commencement of fire season	Yes	7 September 2024	Informed this season's fire controllers about the location and Barwon Waters legal requirements to protect the offset site for impacts of fire	Some new fire personnel were not aware that there was an offset site on the property and the conservation requirements that need to be met and have taken note.	List of names and positions of staff involved in the meeting
All	Macropod overgrazing/overbrowsing	na					No action required as there was no evidence of macropod overgrazing/overbrowsing	
1B and 2A	Flooding/erosion	na					No action required as there was no evidence of flooding or erosion	
All	Cinnamon Fungus	Ensure all Barwon Water staff and contractors entering the site are trained and undertake cleaning and hygiene	Ongoing	Yes	28 September 2024 14 January 2025	Site inductions completed and signed All management vehicles, footwear	Two unannounced spot audits were carried out by Barwon Water and all contractors were found to be inducted and following the hygiene policy.	Copies of signed inductions, photos of cleaning equipment, invoices for cleaning

Control all high threats – actions

Standards: Control all high threats to maintenance and improvement of native vegetation condition, including, but not limited to the following. Reduce presence, activity and disturbance of introduced animals to negligible levels. Control native herbivores to the extent necessary to ensure improvements in vegetation condition including tree canopy and understorey cover, diversity and recruitment results. Control erosion.

Sites/Zones	Threat	Method	Timing	Action completed - yes/no	Dates completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
		<p>protocols for the management of Cinnamon Fungus (and weeds). Ensure all materials bought on site are from clean sources.</p> <p>Undertake spot audits twice a year to check these protocols are being adhered to.</p>		Yes		<p>and equipment used by contractors were brushed down and cleaned with a mixture of 70% methylated spirits and 30% water outside the offset site immediately before and after undertaking any work on site.</p>		<p>equipment, email report by Barwon Water staff documenting results of spot audits.</p>

Remove all rubbish - Monitoring (observations)

Outline observations from site visits conducted by the landowner/manager (e.g. Evidence of disturbance, abundance)

Management action/commitments: Monitor threats at least quarterly; Reduce abundance/impacts to negligible levels

	Season ¹⁶ :				Abundance/threat reduced to negligible levels?
	Spring	Summer	Autumn	Winter	
Rubbish	No rubbish found	No rubbish found	No rubbish found	No rubbish found	Yes
Other, or new and emerging threats of rubbish	No new or emerging threats identified.	No new or emerging threats identified.	No new or emerging threats identified.	No new or emerging threats identified.	n/a

¹⁶ Order of seasons should be based on the date the landowner agreement commenced (i.e. If the landowner agreement was signed in spring, then the first quarter is spring)

Rubbish removal – actions

Standards: Control all high threats to maintenance and improvement of native vegetation condition, including, but not limited to the following. Reduce presence, activity and disturbance of introduced animals to negligible levels. Control native herbivores to the extent necessary to ensure improvements in vegetation condition including tree canopy and understorey cover, diversity and recruitment results. Control erosion.

Sites/Zones	Threat	Method	Timing	Action completed - yes/no	Dates completed	Description of action	Results/comments/observations	Description of evidence supplied (e.g. photographs, invoices, worklogs)
All	Rubbish	Remove all rubbish, from site	Within 3 months of detection	n/a			No rubbish found on site	

Any additional actions required from DEECA monitoring or annual report reviews

(refer to latest letters from DEECA)

Have additional actions been completed? What was the result?

n/a

Is there anything else you'd like to report? Sightings, rainfall? Feedback? Positive sightings (e.g. new species observed)?

We had a wet spring so the growth of some weed species was greater than normal. I feel we remain on track to meet the targets in the management plan.

PV are undertaking deer control in the adjoining National Park and will extend control across the offset site

Photopoints

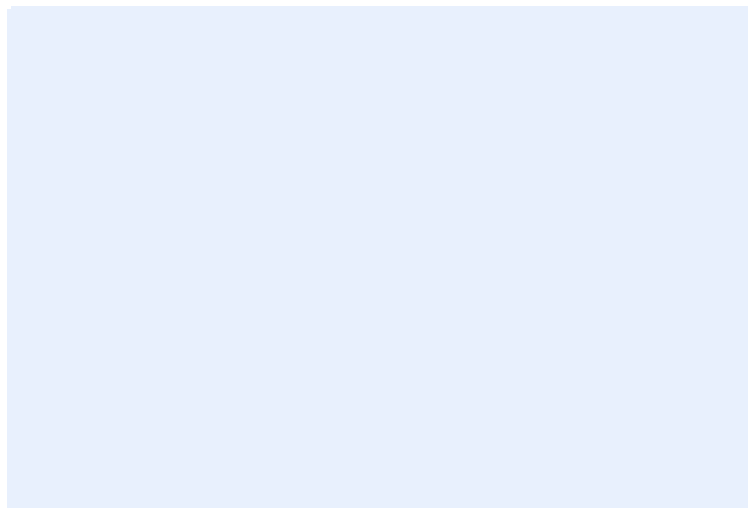
Permanent markers/stakes for photo points established and remain on-site/intact? Yes / No (if not, brief explanation)

The below photo placeholders are for you to insert your photo points. Click the icon and you will be prompted to replace the picture.

Include a caption for each photo describing the change observed since last year.

Photographs taken during initial assessment (ie. 'year 0') are located below. These photographs have been provided by your site assessor and serve as a baseline for comparison of the sites condition over time.

Paste this years photo point photographs below. Remember to include descriptive captions under each photo



Photopoint 1, Habitat Zone 2A, Cool Temperate Rainforest

Location: -38.652099, 143.375941

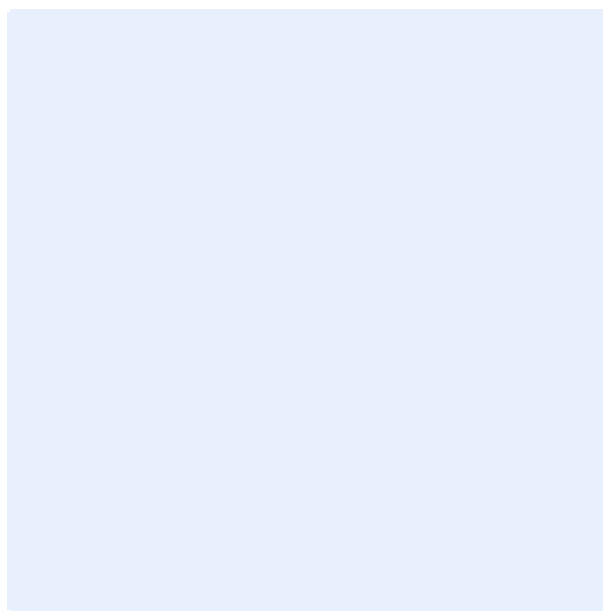
Description of location: Chapple Creek (North Branch) roughly half way along the creekline between the eastern and northern boundary

Direction: North

Date photo taken: 25 June 2024

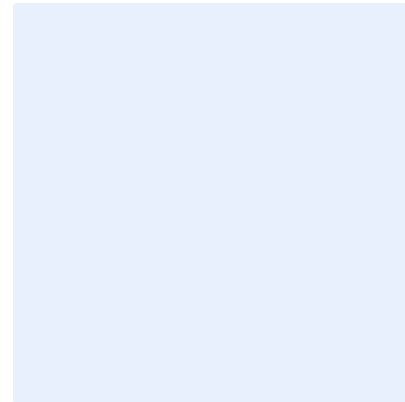
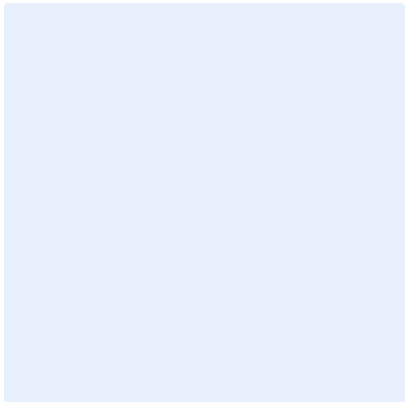
Description: Small patch of Montbretia * *Crocasmia X crocosmiiflora* that should be treated immediately to prevent its spread and can be eliminated from the offset site.

Photopoint 1, Habitat Zone 2A, Cool Temperate Rainforest: Year 1, showing removal of all *Montbretia plants from the small infestation on Chapple Creek .



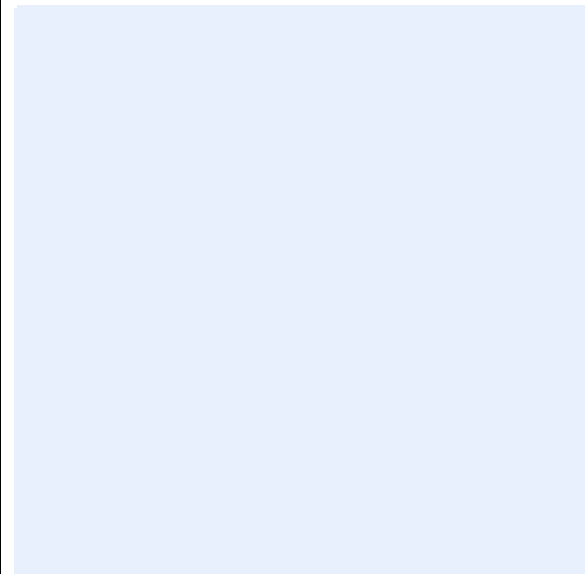
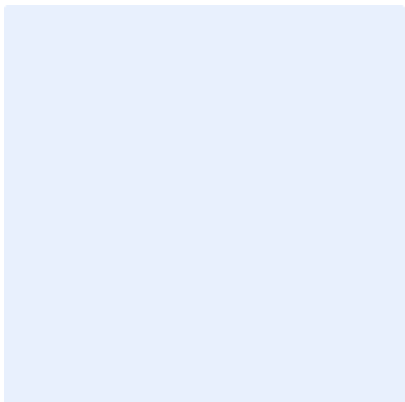
<p>Photopoint 2, Habitat Zone 2D, Shrubby Wet Forest Location: -38.653425, 143.374761 Description of location: edge of the eastern side of the spur track Direction: vertical towards the ground Date photo taken: 25 June 2024 Description: Prickly Currant-bush <i>Coprosma quadrifida</i> recently, heavily browsed by deer along the spur track</p>	<p>Photopoint 2, Habitat Zone 2D, Shrubby Wet Forest: Year 1, Prickly Currant-bush regenerating with no evidence of ongoing or recent deer browsing.</p>
	
<p>Photopoint 3, Habitat Zone 1A, Wet Forest Location: - -38.655201, 143.372491 Description of location: half way up the steep western slope (north east facing) of the western gully near Morris Track Direction: East Date photo taken: 26 June 2024 Description: Fallow deer trail leading form Morris Track down to the western drainage line.</p>	<p>Photopoint 3, Habitat Zone 1A, Wet Forest: Year 1, vegetation regenerating along the deer trail, no fresh sign of deer</p>

Photographs of additional works – any photographs of works or points of interest that are not a photopoint. Any photographed invoices, work logs or receipts of consumables can also be inserted here. You are not limited to four photographs.



Caption:

Caption:



Caption:

Caption:

Compliance with the Obligations of the Landowner (as contained in the Landowner Agreement)

Management of the Site

In relation to the Site, the Landowner covenants and agrees:

5.4 to complete the Management Actions for the purpose of achieving the Management Commitments, to the standards required by the Site Management Plan and to the satisfaction of the Secretary, regardless of whether all Native Vegetation Credits have been sold to other people. Where the Landowner has completed the Management Actions specified in the Site Management Plan to the satisfaction of the Secretary, but a Management Commitment is not achieved for reasons out of the control of the Landowner, the Secretary will not withhold any payment to the Landowner;

5.5 to allow the Secretary and the Secretary's officers, employees, agents, contractors, invitees and licensees access to, and entry onto the Site in accordance with this Agreement or the Conservation Forests and Land Act 1987; and

5.6 to undertake the works required to implement the Site Management Plan in compliance with all relevant laws, regulations and statutes, including subordinate instruments and authorisation.

Protection of Native Vegetation

5.7 The Landowner must:

5.7.1 not cause or consent to the removal, destruction, lopping or any other interference with any Native Vegetation on the Site;

5.7.2 take all reasonable steps to ensure that no Native Vegetation on the Site is removed, destroyed, lopped or otherwise interfered with; and

5.7.3 subject to clause 6.4, not apply for, or consent to an application for, a permit under the Planning and Environment Act 1987 (Vic) to remove, destroy or lop Native Vegetation on the Site.

Protection of other habitat

5.8 Subject to clauses 2.13 and 6.4, the Landowner must:

5.8.1 not cause or consent to the removal or interference with any rocks or fallen vegetation on the Site; and

5.8.2 take all reasonable steps to ensure that no rock or fallen vegetation on the Site is removed or interfered with.

Exclusion of livestock

5.9 Subject to clauses 2.13 and 6.4, and except as provided for in any Management Notice under clause 7, the Landowner must:

5.9.1 not cause or consent to the introduction of any livestock on the Site; and

5.9.2 take all reasonable steps to ensure that no livestock enter or remain on the Site.

Introduction of animals other than livestock

5.10 Subject to clauses 2.13, 5.11 and 6.4, the Landowner must:

5.10.1 not bring, or consent to the bringing of, any Domestic Animal onto the Site; and

5.10.2 take all reasonable steps to exclude any Domestic Animal that enters onto the Site.

5.11 The Landowner may bring domestic dogs on to the Site provided that any dogs so brought are under the immediate control of the Landowner or another person authorised by the Landowner at all times.

Installation or upgrade of fencing

5.12 This clause applies if the Site is adjacent to any land from which any stock or person (whether or not the person is in a vehicle):

- 5.12.1 has ready access to the Site;
- 5.12.2 is reasonably likely to have ready access to the Site; or
- 5.12.3 becomes reasonably likely to have ready access to the Site.
- 5.13 If clause 5.12 applies, the Landowner must, subject to clause 6.4, ensure that there is adequate fencing and gates between the land and the Site so as to protect the Site from being readily accessible by stock or persons.
- 5.14 Subject to clause 6.4, any works required under clause 5.13 must be carried out:
- 5.14.1 in the case of a site to which clauses 5.12.1 or 5.12.2 apply at the Commencement of this Agreement, within three months of the Commencement Date of this Agreement or at any earlier time specified in the Site Management Plan; or
- 5.14.2 in any other case, within three months of any change in circumstance that creates a reasonable likelihood of any stock or person having ready access to the Site for the purposes of clause 5.12.3, or at any earlier time specified by the Secretary by written notice to the Landowner.

Maintenance of fencing

- 5.15 Subject to clause 6.4, the Landowner must maintain any fencing required by clause 5.10.2 or clause 5.13 in good repair and condition at all times.

Statutory pest management obligations

- 5.16 From the Commencement Date of this Agreement and on an ongoing basis, the Landowner must, in relation to the Site, ensure compliance with:
- 5.16.1 the requirement to prevent the growth and spread of Regionally Controlled Weeds under section 20(1)(e) of the Catchment and Land Protection Act 1994 (Vic);
- 5.16.2 the requirement to prevent the spread of, and as far as possible, eliminate established pest animals under section 20(1)(f) of the Catchment and Land Protection Act 1994 (Vic); and
- 5.16.3 the requirement to eradicate Regionally Prohibited Weeds under section 20(1)(d) of the Catchment and Land Protection Act 1994 (Vic).

Weeds identified in Site Management Plan

- 5.17 The Landowner must, to the extent specified in the Site Management Plan, eradicate or prevent the growth and spread of any Weed or other plant as specified in the Site Management Plan.

Application of fertiliser

- 5.18 The Landowner must:
- 5.18.1 not apply any fertiliser to any part of the Site;
- 5.18.2 not consent to the application of any fertiliser to any part of the Site; and
- 5.18.3 take all reasonable steps to ensure that fertiliser is not applied to any part of the Site.

Buildings and structures

- 5.19 Subject to clauses 2.13, 6.4 and 5.20, the Landowner must:
- 5.19.1 not erect or place any building or structure on the Site; and
- 5.19.2 take all reasonable steps to ensure that no building or structure is placed on the Site by any other person.
- 5.20 The Landowner may erect temporary structures on the Site as part of any grazing of livestock authorised under the Site Management Plan, consent under clause 6.4 or Management Notice under clause 7.

Alterations to the natural state of water bodies

- 5.21 Subject to clauses 2.13 and 6.4, the Landowner must not cause or consent to, and must take all reasonable steps to avoid any occurrence of, any act which alters the natural state of, or the flow, supply, quantity or quality of, any body of water on to or from the Site.

Rubbish and other materials

5.22 The Landowner must not cause or consent to, and must take all reasonable steps to avoid, the dumping of any rubbish or the storage of any materials on the Site.

Further restrictions on using the land

5.23 Subject to clause 6.4, the Landowner must not cause or consent to any of the following, and must take all reasonable steps to ensure that the following do not occur on the Site:

- 5.23.1 the removal, introduction or disturbance of any soil, rocks or other minerals or the construction of dams or modification of existing dams;
- 5.23.2 subdivision;
- 5.23.3 the operation of any trade, industry or business;
- 5.23.4 the recreational use of trail bikes or four wheel drive vehicles;
- 5.23.5 the carrying out of any works on the Site other than those required by this Agreement or by law; and
- 5.23.6 the carrying out of any other activities not consistent with the purposes of this Agreement.

Extractive industry and utility installations

5.24 The Landowner must not permit, unless required by law:

- 5.24.1 the issue of any licence or approval for exploration, mining, extraction or production of gas, petroleum, minerals or other substances on the Site; or
- 5.24.2 the installation of any transmission lines or other services or works on the Site.

5.25 The Landowner must bring this Agreement to the attention of any person who notifies the Landowner that they have applied for or will be applying for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2, and to any other person or body whose approval is required to take that action.

5.26 The landowner must notify the Secretary of any notification of an application for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2.

Have you complied with all the above conditions?

Yes / No (please circle) If no, provide details below

I hereby declare:

- The supplied information is accurate and complies with reporting requirements under Section 5 (Obligations of the Landowner) of the landowner agreement for VC_CFL-3804_01; and,

- I am the owner (or authorised person) of the property on which VC_CFL-3804_01 situated and should the property be sold, I will immediately inform DEECA in accordance with Section 13 of the landowner agreement

Signed: _____

Date