




ENVIRONMENTAL
IMPACT STATEMENT

Addendum

December 2024

MARINUS
LINK

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)



We acknowledge the First Peoples of the Country on which Marinus Link is proposed in Tasmania, across Bass Strait and in Victoria. We recognise the Tasmanian Aboriginal Community and Traditional Owners in Victoria and their continuing connection to land, sea, waterways, sky and culture, and pay our respects to all elders past and present.



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Acronyms and abbreviations

Acronym or abbreviation	Description
AEMO	Australian Energy Market Operator
CEMP	Construction environment management plan
CFA	Country Fire Authority
CHMP	Cultural heritage management plan
CVA	Cultural values assessment
DEECA	Department of Energy, Environment and Climate Action
EE Act	<i>Environment Effects Act 1978 (Vic)</i>
EES	Environment effects statement
EIS	Environmental impact statement
EPA Tasmania	Environment Protection Authority Tasmania
EPA Victoria	Environment Protection Authority Victoria
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i>
EPR	Environmental Performance Requirement
FFG Act	<i>Flora and Fauna Guarantee Act 1988 (Vic)</i>
GDE	Groundwater dependent ecosystem
ha	Hectare
HDD	Horizontal directional drilling
HVDC	High voltage direct current
IAC	Victorian Independent Advisory Committee
IEA	Independent Environmental Auditor
ISP	Integrated System Plan
km	Kilometre
m	Metre
MLPL	Marinus Link Pty Ltd

MNES	Matters of National Environmental Significance
MW	megawatt
NEM	National Electricity Market
NWTD	North West Transmission Developments
PMP	Property management plans
TEC	Threatened ecological community
WGCMA	West Gippsland Catchment Management Authority

Executive summary

Marinus Link (the project) comprises a 1500-megawatt (MW) high voltage direct current (HVDC) electricity interconnector between Tasmania and Victoria, to allow for the continued trading and distribution of electricity within the National Electricity Market (NEM).

A combined draft environmental impact statement/environment effects statement (referred to below as the draft EIS) was prepared by Marinus Link Pty Ltd (MLPL) to address the Commonwealth government's requirements under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act) and Victorian government's requirements under the *Environment Effects Act 1978* (Vic).

The draft EIS was published for comment on the Marinus Link website (marinuslink.com.au) from 31 May 2024 to 12 July 2024. Submitters were able to comment on matters relevant to the Commonwealth or Victorian regime or both.

Following the exhibition of the draft EIS, additional or updated project information has been provided to the Victorian and Tasmanian regulators to address their assessment requirements and to respond to public submissions, where relevant. This addendum has been prepared to document the additional or updated project information that is relevant to the Commonwealth assessment under the EPBC Act, including material findings from the following:

- Staging supplementary assessment – An update as to the expected timing for delivery for the two stages of the project, as well as updated assessments by technical experts relating to that change in timing.
- Expert witness statements tabled in the Victorian Independent Advisory Committee (IAC) hearing including responses of those experts to public submissions on the draft EIS.
- Additional information provided to the Tasmanian Environment Protection Authority (EPA Tasmania) to address their requirements.

This document also provides a summary of updates made to the environmental management framework and environmental performance requirements (EPRs) (Volume 5, Chapter 2 of the exhibited EIS/EES) to reflect further review and recommendations from technical specialists, matters raised in public submissions, other matters raised during the Victorian IAC process and through engagement with EPA Tasmania.

The finalised EIS under section 104 of the EPBC Act will comprise of:

- The draft EIS: Executive Summary, Glossary and Abbreviations, and Summary Report, Volumes 1-5, Attachments 1-6, and Technical Appendices A-W; and
- This Addendum to the draft EIS including:
 - Appendix A: Summary of responses to public submissions on the draft EIS
 - Appendix B: Revised environmental management framework, EPRs and mitigation measures

- Appendix C: Economics supplementary report in relation to changed timing for Stage 2
- Appendix D: Expert reports on key disciplines, as tabled in the Victorian IAC process including response to comments: economics, social impact assessment, terrestrial ecology
- Appendix E: Extract of expert response to submissions on the draft EIS
- Appendix F: Revised MNES significant impact tests for response to comments on draft EIS.

1 Introduction

Marinus Link (the project) comprises a 1500-megawatt (MW) high voltage direct current (HVDC) electricity interconnector between Tasmania and Victoria, to allow for the continued trading and distribution of electricity within the National Electricity Market (NEM). The project consists of two 750 MW circuits with two power cables and a fibre optic communications cable. The key project components for each 750 MW circuit (shown in Figure 1) are:

- Converter station and switching station at Heybridge in northwest Tasmania.
- Shore crossing in Tasmania adjacent to the converter station, to be constructed via horizontal directional drilling (HDD) to about 10 metre (m) water depth.
- Approximately 255 kilometres (km) of subsea cable across Bass Strait from Heybridge in Tasmania to Waratah Bay in Victoria.
- Shore crossing in Victoria at Waratah Bay, to be constructed via HDD to about 10 m water depth.
- Land-sea cable joint where the subsea cables will connect to the land cables in Victoria.
- Fibre optic cable inspection and test hut (communications building) adjacent to Waratah Bay.
- Approximately 90 km of underground land cables extending from the land-sea joint to the converter station site at Hazelwood.
- Converter station and switching station at Hazelwood adjacent to the existing Hazelwood Terminal Station.

As the project crosses through Victoria, the Commonwealth marine area and Tasmania, assessment and approval is required from the three governments. A combined draft environmental impact statement/environment effects statement (EIS/EES) was prepared by Marinus Link Pty Ltd (MLPL) to address the Commonwealth government's requirements under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act) and Victorian government's requirements under the *Environment Effects Act 1978* (Vic) (EE Act). For the remainder of this document, we refer to the EIS/EES as exhibited as the 'draft EIS'.

The draft EIS was published for comment on the Marinus Link website (marinuslink.com.au) from 31 May 2024 to 12 July 2024. During this time, members of the public were invited to read and make submissions on the draft EIS under section 103(1)(c) of the EPBC Act. A summary of responses to public submissions on the draft EIS is provided in Appendix A.

This document addresses requirements of section 104(2) of the EPBC Act for MLPL to finalise the EIS to:

- Take account of any comments received within the period for comment; and

- Provide a summary of any such comments and how these comments have been addressed.

In addition, this document provides a summary of updated information provided to Victorian and Tasmanian regulators since exhibition of the draft EIS to address their requirements for matters that are also related to the EPBC Act assessment. This is consistent with the approach stated in the *Guidelines for the Content of a Draft Environmental Impact Statement – Environment Protection and Biodiversity Conservation Act 1999 – Marinus Link underground and subsea electricity interconnector cable (EPBC 2021/9053)* (EIS guidelines) finalised on 19 October 2022, that the three relevant jurisdictions agreed to coordinate and align the assessment process where possible.

In relation to the proposed avoidance and mitigation measures required to be included in the finalised EIS, this document also includes updated Environmental Management Framework and environmental performance requirements (EPRs) and mitigation measures (Appendix B and summarised in section 15), reflecting the responses to regulator and public submissions (see section 3) and inputs throughout exhibition of the draft EIS the Victorian Independent Advisory Committee (IAC) process (summarised in section 2 and sections 5 to 11) and progress of the Tasmanian EISs (see sections 12 to 14).

The EPRs and mitigation measures in Appendix B reflect:

- The 'Day 2' Environmental Management Framework and EPRs relevant to Victorian and whole-of-project matters tabled at the end of the Victorian IAC hearing.
- In relation to Tasmanian EPBC Act matters, the exhibited EPRs reframed as 'mitigation measures' as preferred by EPA Tasmania and amended having regard to changes recommended by experts in further material prepared for the Tasmanian EISs (see sections 12 to 14).

Finalised EIS under section 104 of the EPBC Act

The finalised EIS consists of:

- The draft EIS: Executive Summary, Glossary and Abbreviations, and Summary Report, Volumes 1-5, Attachments 1-6, and Technical Appendices A-W; and
- This addendum to the draft EIS including Appendices A (Summary of responses to public submissions on the draft EIS), B (Revised environmental management framework, EPRs and mitigation measures), C (Economics supplementary report in relation to changed timing for Stage 2), D (Expert reports on key disciplines), E (Extract of expert response to submissions on the draft EIS), and F (Revised Matters of National Environmental Significance (MNES) significant impact tests for response to comments on draft EIS).



LEGEND

- Landfall
- Converter station
- HVDC subsea cable
- Underground HVDC cable
- - - Cable option not progressing



0 15 30 km
 SCALE 1:1,500,000
 PAGE SIZE: A4
 PROJECTION: GDA2020 MGA Zone 55

SOURCE
 Proposed route from Tetra Tech Coffey.
 Imagery from ESRI Online.

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 EIS/EES

FIGURE 1

Marinus Link project overview



1.1 EPBC Act assessment

The project was referred to the Australian Minister for the Environment on 5 October 2021. On 4 November 2021, a delegate of the Minister for the Environment determined that the project required assessment under the EPBC Act due to the potential to have a significant impact on the following MNES:

- Listed threatened species and communities (section 18 and 18A).
- Listed migratory species (sections 20 and 20A).
- The environment of the Commonwealth marine area (sections 23 and 24A).

EIS Guidelines finalised on 19 October 2022 set out the matters that were required to be addressed in the draft EIS. The draft EIS was exhibited for public comment from 31 May 2024 to 12 July 2024.

This addendum addresses the requirement to finalise the draft EIS under section 104 of the EPBC Act. It includes:

- A summary of the comments made on the draft EIS and how they have been addressed.
- Updated information provided to Victorian and Tasmanian regulators to address their requirements for matters also related to the EPBC Act assessment.
- Updated Environmental Management Framework and EPRs.

Following provision of this addendum, it will be published on the Marinus Link website (marinuslink.com.au), addressing the requirements of section 104(4) of the EPBC Act.

1.2 Updates since draft EIS exhibited

Following the exhibition of the draft EIS, updated information has been provided to the Victorian and Tasmanian regulators to address their requirements, including the following information that also relates to the EPBC Act assessment, of which a summary of key findings is provided in this addendum:

- Staging supplementary assessment – An update as to the expected timing for delivery for the two stages of the project, as well as updated assessments by technical experts relating to that change in timing (section 2 and economics supplementary assessment Appendix C).
- Expert witness statements tabled in the Victorian IAC hearing including responses of those experts to public submissions on the draft EIS (section 3, key reports on economics, social impact assessment, terrestrial ecology and marine ecology and resource use Appendix D, and summary of expert response to public submissions on the draft EIS Appendix E).
- Additional information provided to the Tasmanian EPA to address their requirements (section 12).

2 Change in project staging

On 20 May 2024, MLPL issued Information Update #1 (<https://marinuslink.com.au/eis-ees-updates/marinus-link-information-update-1-timing-of-stage-2/>) regarding the timing of delivery of Stage 1 and Stage 2.

The project (subject to approvals) is proposed to be implemented as two stages, with each stage consisting of one 750 MW HVDC circuit link between Tasmania and Victoria. Permission to develop in stages would be reflected in the planning permission and other approvals as relevant.

- Stage 1 will include earthworks and site preparation of the converter station site to address requirements for both converter stations, access tracks and construction laydown areas, and all HDD drilling for the shore crossings, road and river crossings for both stages, and trenching works to install conduits and joint pits within the linear easements that will accommodate cables for both stages. Stage 1 also includes laying the cables for the Stage 1 cable circuit (including across Bass Strait), and construction of the Stage 1 converter station at each of Hazelwood and Heybridge (and transition station, if required). Rehabilitation works would be implemented following Stage 1 works.
- Stage 2 will include installing the cables for the Stage 2 cable circuit (including across Bass Strait) and construction of the Stage 2 converter stations at each of Hazelwood and Heybridge. Final reinstatement would occur following completion of Stage 2 activities.

The draft EIS had been prepared assuming that the construction period to deliver both stages would be from 2025 to 2030. MLPL is seeking approvals for both stages, timing for delivery of Stage 2 will be subject to market demand. MLPL considers a likely scenario is that Stage 1 would be completed, and the Stage 1 circuit commissioned by 2030 as anticipated, followed by a potential gap in construction so that the Stage 2 circuit is laid and commissioned by 2033.

- Stage 1 will take place between 2025 and 2030. Consistent with the information presented in the draft EIS, when land cabling construction and installation works are taking place in Victoria, each property affected by the transmission easement would host main construction works for a period of time within that overall five year construction period;
- Stage 1 works on each property would include temporary reinstatement works and temporary infrastructure necessary to comply with property management plans (PMPs) and facilitate efficient use of the land in the interim period prior to Stage 2 works. Access tracks would remain in place through the interim period; and
- The Stage 2 construction period would take place between 2031 and 2033 with commissioning in 2033. Stage 2 would include any necessary removal of temporary works, as well as the final reinstatement and rehabilitation of infrastructure and rehabilitation of access tracks and construction laydown areas as required.

2.1 Supplementary technical assessments

To understand any implications of the delivery of Stage 2 being later than assumed in the draft EIS, technical specialists subsequently reviewed their assessments to address the following:

- Identify whether a change to the timing for delivery of the works for Stage 1 and Stage 2 would have any material implications for the assessment and result in:
 - any additional impacts to those identified in their report
 - any changes to impacts identified in their report
 - any changes to the conclusions set out in their report.
- Identify whether a change to the timing for delivery of Stage 2 and works will result in:
 - Any additional mitigation measures or EPRs.
 - Any changes to any mitigation measures and EPRs.

2.2 Summary of assessment findings

The supplementary technical reports addressing timing of Stage 2 were published on the MLPL website as Information Update #2 (<https://marinuslink.com.au/information-update-2-supplementary-technical-reports-addressing-timing-of-stage-2/>). This section summarises the key findings of the supplementary technical reports published as Information Update #2.

The majority of technical specialists concluded that the revised timing of Stage 2 will not result in changes to the assessment, conclusions or proposed mitigation measures or EPRs for their studies. No implications were identified in respect of the Commonwealth marine area.

The specialists addressing matters relevant to impacts on MNES in Tasmania (Technical Appendix E: Heybridge Terrestrial Ecology and Technical Appendix F: Heybridge Social to the exhibited draft EIS) considered the revised timing of Stage 2 as relevant to MNES. The technical specialists concluded that no changes to their assessment, conclusions or proposed mitigation measures or EPRs were required as a result of the change in staging, and that impacts could be appropriately managed through the implementation of measures to comply with the existing mitigation measures or EPRs .

The Heybridge terrestrial ecology specialist highlighted EPR EC03: Implement measures to protect raptor when re-establishing the worksite at Heybridge, for Stage 2. EPR EC03 requires the undertaking of a raptor nest survey within 12 months of the commencement of work and every year until the completion of the project, with mitigation of deferral of works during the nesting season if active nests identified within 500 m or 1 km line-of-sight. The specialist highlighted that, if there is a substantial period between the end of Stage 1

and the commencement of Stage 2 work on site, it will be necessary to ensure that raptor nest survey requirements have been undertaken prior to work commencement.

Implications were noted for the whole of project assessment of Economics (Technical Appendix B to the exhibited draft EIS). The specialists addressing matters relevant to impacts in Victoria that noted implications for their study as a result of the revised timing of Stage 2 were: Geomorphology and Geology (Technical Appendix O to the exhibited draft EIS), Surface Water (Technical Appendix Q to the exhibited draft EIS), and Agriculture and Forestry (Technical Appendix K to the exhibited EIS). The conclusions for these supplementary technical reports are summarised below.

Further changes to assessments, conclusions or EPRs in response to further review and recommendations, or matters raised during public exhibition and panel are outlined separately, in sections 3 to 15.

2.2.1 Economics

Revised modelling was completed to consider the impacts of a change in the timing of Stage 2 and has resulted in the following changes to the economics technical assessment:

- Expected to increase Gross Value Added across construction and operations by approximately 50% in North-West Tasmania, 40% in Tasmania, 20% in Gippsland, and 14% in Victoria.
- Similarly, employment (in job-years) is expected to increase by approximately 52% in North-West Tasmania, 18% in Tasmania, 12% in Gippsland, and 6% across Victoria.
- The extended construction period and estimated increase in employment implies more economic opportunities for First Nations people and others in the community, and provision of more skills and training opportunities.
- The extended construction period could extend the duration of impacts on tourism, land value and demand for housing.

No change to the identified mitigation measures and EPRs was considered to be required.

The supplementary report of SGS Economics dated August 2024 is attached in Appendix C to this EIS Addendum.

2.2.2 Geomorphology and geology (Victoria)

The change in timing for delivery of the works for Stage 1 and Stage 2 has resulted in the following implications for the geomorphology and geology technical assessment:

- High energy weather events or tectonic events between stages have the potential to cause instability of landform of some trench sectors that did not display instability at the time of the assessment.
- A pre-construction assessment is required to assess whether high energy weather events or tectonic events have occurred between Stage 1 and Stage 2. Based on the outcome of this assessment, further field investigations may be required.

No changes or additions to the proposed mitigation measures or EPRs were considered to be required to address the extension of project duration. Significant change in landform instability identified will require location specific mitigation measures developed to comply with EPRs.

2.2.3 Surface water (Victoria)

The change in timing for delivery of the works for Stage 1 and Stage 2 has resulted in the following implications for the surface water technical assessment:

- Extends the duration where there is a risk of access road inundation including potential erosion, sediment liberation and contaminant runoff (identified as Construction Risk, C.6 in Technical Appendix Q: Surface Water to the exhibited draft EIS). This will not change the overall assessment conclusion.

No changes or additions to the proposed mitigation measures or EPRs were considered to be required to address the extension of duration. Subsequently, MLPL updated EPR SW01, SW03 and SW04 to provide for consideration of the timing and duration of mitigation measures for any interim periods between construction staging (see updated EPRs at section 15.2.2 below).

2.2.4 Agriculture and forestry (Victoria)

The change in timing for delivery of the works for Stage 1 and Stage 2 has resulted in the following implications for the agriculture and forestry technical assessment:

- The PMPs are required to be updated before Stage 2 construction commences to reflect land ownership, agricultural land use and farm management practices at that time.

No changes to assessment findings or EPRs to address the change in timing of Stage 2 were considered to be required.

3 Response to public submissions

The draft EIS was published for comment on the Marinus Link website (marinuslink.com.au) from 31 May 2024 to 12 July 2024.

The notification of invitation for public comment was also published on the EPBC Act Public Portal, which provided notice and invitation to make submissions on the draft EIS under the EE Act and section 103(1)(c) of the EPBC Act, and in national and regional newspapers. Submissions were made through the Victorian Department of Transport and Planning Engage Victoria website. The notice of invitation for public comment explained submissions did not need to identify whether they were directed to the Victorian or Commonwealth process, or both.

To encourage public engagement in the submission process, MLPL delivered a range of community engagement sessions and published additional notices in newspapers.

Twenty-seven (27) submissions were received on the draft EIS (i.e. the EIS/EES and draft Planning Scheme Amendment). A list of the submissions is provided in Table 1.

Public submissions on the draft EIS are accessible on the Engage Victoria website (<https://engage.vic.gov.au/project/MarinusLink-IAC/page/Submissions>). Appendix A provides summary of the matters raised by the submissions, along with MLPL’s response to each of the submissions made on the draft EIS.

Table 1 Public submissions received

Submission number	Submitter
#1	[REDACTED]
#2	[REDACTED]
#3	[REDACTED]
#4	[REDACTED]
#5	[REDACTED]
#6	[REDACTED]
#7	[REDACTED]
#8	[REDACTED]

Submission number	Submitter
#9	[REDACTED]
#10	South Gippsland Shire Council (Christian Stefani)
#11	[REDACTED]
#12	[REDACTED]
#13	[REDACTED]
#14	[REDACTED]
#15	[REDACTED]
#16	[REDACTED]
#17	West Gippsland Catchment Management Authority (Adam Dunn)
#18	Environment Protection Authority Victoria (Nicky Bradley)
#19	[REDACTED]
#20	[REDACTED]
#21	Department of Energy Environment and Climate Action (Carmel Henderson)
#22	[REDACTED]
#23	[REDACTED]
#24	[REDACTED]
#25	[REDACTED]
#26	[REDACTED]
#27	[REDACTED]

4 Project rationale

A small number of submitters during the public comment period raised concerns regarding the energy transition and the project’s rationale being linked to renewable energy projects. Of these submitters, some expressed concerns regarding negative impacts of renewable energy projects on landscapes and the environment, including contamination and habitat impact from wind turbines, solar farms and battery energy

storage systems. Some submitters proposed policy alternatives to renewable energy, including coal and nuclear, as having more acceptable impacts on landscapes and the environment.

4.1.1 Rationale for Marinus Link

The project rationale and purpose are described in Volume 1 Chapter 2 (Project Rationale) of the draft EIS. The rationale for the project as an electricity interconnector is founded on existing, legislated state and Commonwealth policy regarding Australia's electricity system and the transition to renewable energy including the targets set in section 10(1) *Climate Change Act 2022* (Cwth). A key benefit of the project is enabling the energy transition, but the project does not involve development of any specific renewable energy project.

Subsequent to commencement of exhibition of the draft EIS the Australian Energy Market Operator (AEMO) released the 2024 Integrated System Plan (ISP) for the NEM (AEMO, June 2024) (2024 ISP).¹ The 2024 ISP identifies the ongoing shift to renewable energy (connected by transmission and distribution networks, firmed with storage and with gas-powered generation back-up), as 'essential' in circumstances where the NEM will be required to supply demand that is forecast to almost double by 2049-2050, without depending on coal. The owners of all but one remaining coal-fired power station have announced retirements, and all are forecast by AEMO to retire from the NEM by 2037-2038 or sooner. AEMO forecasts that, by 2034-2035, renewables will account for almost 70% of annual electricity generation, and that, by 2049-50, utility-scale renewable sources will account for 99% of NEM generation.

The 2024 ISP identifies the transmission projects on the optimal development path as "allow[ing] efficient investment in generation and storage, and adding resilience" to the NEM. The 2024 ISP identifies the project as an "already actionable project" and concludes that "all actionable projects should progress as urgently as possible".

4.1.2 Impacts of renewable energy projects

Although the project is not linked to any particular renewable energy project, the draft EIS Volume 1 Chapter 5 (EIS/EES assessment framework) section 5.4 includes cumulative impact assessment with relevant renewable energy projects. For completeness, it is noted each renewable energy project proposed by other proponents is subject to assessment and approval under applicable State and Commonwealth environment and/or planning legislation.

¹ AEMO, 2024 *Integrated System Plan for the National Electricity Market* (26 June 2024), <<https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp>>.

4.1.3 Project alternatives

The project reflects strategic planning for Australia's electricity network having regard to Australia's commitments regarding reduced reliance on coal-fired generation. Approval of nuclear power plants is prohibited under section 140A of the EPBC Act.

The draft EIS assessed project alternatives in Volume 3 Chapter 3 (Project alternatives), which included an option of not proceeding with the project (section 3.5.6). The draft EIS states that the consequences of the project not proceeding are that the following benefits would not be realised:

1. Supporting energy transition
2. Improving Tasmania's energy security
3. Wholesale energy cost reduction
4. Economic benefits
5. Increasing telecommunications capacity.

5 Economics

A number of submissions raised concerns around the economic impacts of the project and inconsistencies between the estimated job numbers in the draft EIS and those in economics assessments prepared separately for other purposes.

MLPL commissioned an updated assessment of the project's and the North West Transmission Developments project's (NWTED) economic contribution from construction and operation separate to the EIS process. The updated report was finalised in late 2023, after the economics technical impact assessment (Technical Appendix C: Economics to the exhibited draft EIS) was completed and therefore was not considered in preparing the draft EIS. The updated assessment report is accessible on the Mariner Link website (<https://www.marinuslink.com.au/wp-content/uploads/2023/12/The-economic-contribution-of-Project-Marinus.pdf>). As discussed in section 2, a supplementary economics report was also prepared to consider the updated timing of delivery of Stage 1 and Stage 2 (see Appendix C).

The economic reports show the project will contribute significantly to both the Tasmanian and Victorian economies and are consistent in their estimates of full-time equivalent job-years for construction of the project at approximately 1,755 jobs per year in Victoria.

Since the exhibition of the draft EIS, MLPL has commissioned an updated assessment of the benefits of the project to consumers in the NEM. The assessment found the project is expected to facilitate a reduction in

wholesale electricity prices across the NEM, generating an expected \$10.4 to \$16.9 billion in consumer benefits across the NEM. The full assessment is accessible on the Marinus Link website

(<https://www.marinuslink.com.au/wp-content/uploads/2024/02/FTI-Report-Project-Marinus-analysis-of-NEM-consumer-benefits-1.pdf>).

6 Marine environment

Public submissions raised concerns around the impacts of the project on the marine environment, specifically from noise and vibration from project works and electromagnetic fields generated by the operational cable.

As stated in Technical Appendix H: Marine Ecology and Resource Use (as exhibited with the draft EIS), with the implementation of mitigation measures to comply with EPRs, all construction and operation impacts will result in low to very low residual impact to marine fauna, flora, and benthic communities. The only exception is possible auditory damage on high frequency cetaceans from the cable lay ship, resulting in a moderate residual impact. As outlined in Technical Appendix H: Marine Ecology and Resource Use (as exhibited with the draft EIS), the assessment adopted a conservative approach by assuming that high-frequency cetaceans remain in the impact area for one hour, which is considered very unlikely given high-frequency cetaceans are expected to avoid the noise as they approach. The technical specialist's opinion is that it is more plausible that the permanent threshold shift (i.e., auditory damage) onset distance would be less than 1 m, in which case a low residual significance impact rating would be the more plausible assessment.

In response to concerns about the lack of Australian studies on the Southern Rock Lobster, Giant Crab, Shortfin Eel, Longfin Eel, Gummy Shark, and School Shark, the marine ecology expert acknowledged this gap exists in local research and confirmed that it was appropriate to reference northern hemisphere studies and research on marine species from the same families or genera. Technical Appendix H: Marine Ecology and Resource Use to the exhibited draft EIS found, with the implementation of measures to comply with EPRs, magnetic, electric and thermal fields that are generated during cable operation will result in low to very low residual impacts to marine fauna, flora, and benthic communities.

7 Aboriginal cultural heritage

The draft EIS outlines consultation with First Peoples in Victoria and Tasmania. This engagement has continued, with ongoing activities including cultural education sessions for MLPL's personnel, progression of CVAs in Victoria, and general project updates provided to the Tasmanian Aboriginal Community and

Victorian Traditional Owner Groups: Bunurong Land Council Aboriginal Corporation, GunaiKurnai Land and Waters Aboriginal Corporation and Boonwurrung Land and Sea Council (Traditional Owners)

In Tasmania, MLPL is continuing to connect with Tasmanian Aboriginal Community leaders, cultural advisors, and lead organisations such as First Nations Clean Energy, to identify ways of broadening its engagement. Participation at community events and aligning MLPL engagement with organisations, such as TasNetworks, has led to growing MLPLs connection with the Tasmanian Aboriginal Community and building respectful relationships across the state.

It is intended, through the development of these approvals' activities and focused engagement, to increase project awareness and support within the Tasmanian Aboriginal Community.

Throughout 2025, MLPL will continue to build upon these strengthening relationships as we further develop meaningful ways to connect.

The Victorian IAC invited each of the three Traditional Owners for the Victorian area to make a submission to the IAC. The Bunurong Land Council Aboriginal Corporation provided a response, comprising the recommendations from their respective cultural values assessment (CVA). A summary of these recommendations, and MLPL's response, is included in Appendix A for completeness. GunaiKurnai Land and Waters Aboriginal Corporation and Boonwurrung Land and Sea Council did not respond or choose to participate in the Victorian IAC hearing.

7.1.1 Cultural values assessments

The draft EIS confirmed that CVAs were underway, including to inform the two cultural heritage management plans under the *Aboriginal Heritage Act 2007* (Vic) within Victoria (EPR CH02) and the underwater cultural management plan (EPR UCH04). Section 5.4.5 of Technical Appendix J (Aboriginal and Historical cultural heritage exhibited with the draft EIS) explains the CVA program in Victoria, including the development of the methodology of the CVAs with the Traditional Owner Groups along the proposed project route. It explains that a principal goal in developing a methodology for the CVA program was to ensure that the cultural autonomy of the study area's First Peoples is acknowledged at all stages during the assessment process. The status of the CVAs is as follows:

- Bunurong Land Council Aboriginal Corporation: The CVA is complete. As noted above, a summary of the CVA recommendations, and MLPL's response, is included in Appendix A for completeness. The CVA is being considered by MLPL, including as part of preparation of the relevant cultural heritage management plans under Victorian legislation.
- GunaiKurnai Land and Waters Aboriginal Corporation: A CVA is underway. A draft has been prepared by MLPL's consultants, following engagement with the GunaiKurnai Land and Waters Aboriginal Corporation as was the agreed process. As of the date of this document, the draft CVA is with the

GunaiKurnai Land and Waters Aboriginal Corporation for review and meetings are underway to progress towards finalisation. It is expected this will be an iterative process. MLPL considers the draft CVA it is not its document to share and so has not discussed the contents in this addendum.

- Boonwurrung Land and Sea Council: Meetings are ongoing in relation to various matters. BLSC has elected to prepare the CVA itself and a draft CVA has not been finalised at this stage. The proponent remains open to assisting as appropriate.

7.1.2 Underwater cultural heritage

Technical Appendix I exhibited with the EIS/EES (Underwater cultural heritage and archaeology) assessed the potential for the project to impact tangible First Nations and historical cultural heritage. The assessment did not assess potential to impact intangible First Nations cultural heritage. Rather, the information obtained during the CVA program will be:

- incorporated into the two CHMPs being prepared for Victoria and the underwater cultural management plan (EPR UCH04); and
- will inform ongoing engagement with First Nations groups which will help to identify information, record and share it as relevant.

The technical specialist found it is highly improbable that cable laying activities will intersect potential submerged terrestrial sites that may be present and associated with beach ridge landforms in the southern portion of Bass Strait. Recorded submerged Aboriginal archaeological sites are extremely rare within an Australian context due to an absence of archaeological investigations. The potential sites associated with the beach ridge landforms are likely to be in poor or fragmentary condition. Any surviving sites are considered to be very culturally sensitive from at least an archaeological and scientific criterion (the remaining intangible cultural values of such sites were not assessed). Given the potential significance of such sites, even the partial loss of material and archaeological integrity the impact could be rated as having low significance. There is a likelihood that First Nations underwater cultural heritage sites that could not be identified with the existing technology may be impacted by the proposed works. Through the implementation of proposed EPRs, the predicted residual impacts would range from Nil to Low.

No submitters raised concerns in respect of First Nations or maritime underwater cultural heritage. There are no changes from the assessment in the draft EIS.

8 Waterway crossings (Victoria)

This section summaries the further work completed by the project, including in response to public submissions (see section 3) and matters raised by the Victorian IAC regarding the construction method for crossing waterways.

The project's proposed terrestrial alignment in Victoria intersects 82 waterways in the study area, however as many of these waterways are small and/or ephemeral, the assessment focused on eight major waterway crossings. Technical Appendix Q: Surface water to the draft EIS considered the impacts and risks to waterways that could arise from the construction, operation, and decommissioning phases of the project.

Some submitters during the public comment period raised concerns around the proposed construction method for crossing waterways and the potential for environmental impacts. This concern was raised specifically for the Little Morwell River crossing (shown in Figure 2). Submissions also indicated that trenchless construction methods (TCM) such as HDD were preferable to trenched construction.

During the Victorian IAC hearing, MLPL clarified that TCM is an alternative construction technique to trenched construction and is not necessarily an appropriate construction method for some locations. Depending on a range of factors (including groundwater conditions, environmental constraints and length of drilling), HDD is approximately 7 to 10 times more costly than trenching. The EPRs require the ultimate waterway construction methodology to consider a range of factors such as environmental impacts, engineering requirements and cost benefit considerations. As described in Volume 1, Chapter 6 of the draft EIS, MLPL proposed to cross seven of the eight major waterway crossings with HDD.

Little Morwell River was the only major waterway where trenching was proposed as the preferred crossing method. This construction method was proposed for the Little Morwell River with consideration to a number of factors, including that the impacts of open trenching were considered to be effectively managed. The draft EIS assesses the impacts of crossing the Little Morwell River with trenching.

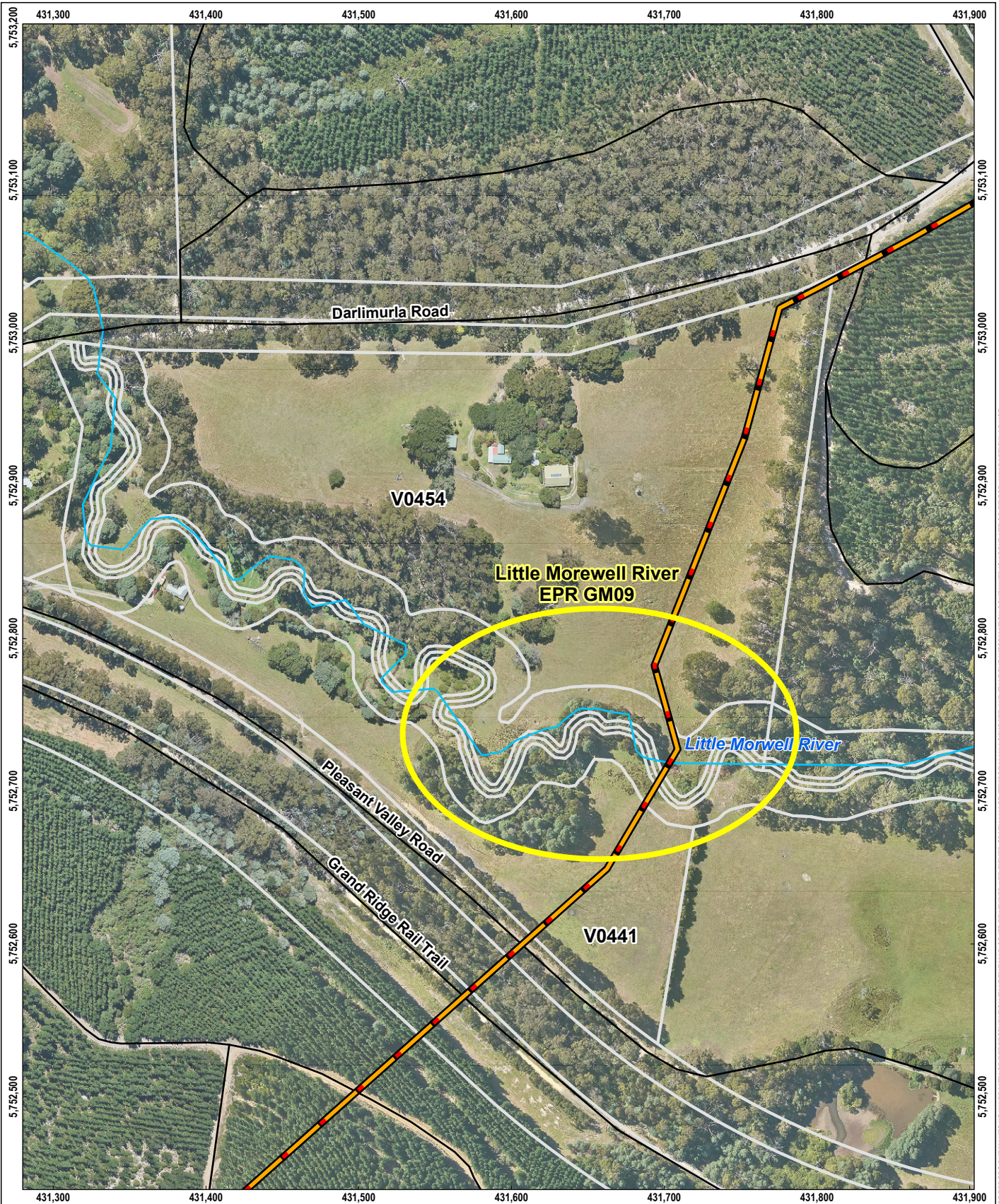
Following further investigations and technical design assessment, MLPL now proposes trenchless construction for the crossing of the Little Morwell River as a matter of expressed preference in the EPRs, subject to the outcome of investigations required by EPRs. See in particular EPR GM09 in the revised EPRs in Appendix B.

The expert witness testimony of the surface water specialist provided the opinion that this change in construction method from what was assessed in the draft EIS will lower the construction and operation residual risks of the project on surface water impacts from moderate (as assessed in the draft EIS at section 6.5 of Appendix Q: Surface water) to low. In the opinion of the surface water technical specialist, a residual risk of low brings the residual risk rating for the Little Morwell River in line with the other proposed HDD





waterway crossings. In the view of the relevant technical experts, the proposed surface water, geomorphology and surface water Day 2 EPRs are considered appropriate to address the potential impacts of either trenched or HDD crossing of Little Morwell River.

The proposed Day 2 EPR GM09 requires further assessment to inform outcomes for further design, geotechnical and other investigations to confirm whether trenchless construction remains the preferred methodology for the following crossings: Morwell River, Tarwin River East Branch, Tributary of Tarwin River East Branch (northern), Tributary of the Tarwin River East Branch (southern), Stony Creek, Buffalo Creek, Fish Creek and Little Morwell River. This assessment will inform the identification of additional measures to avoid or minimise impacts to fluvial geomorphology.

The assessments conclude that impacts on waterway crossing for all waterways can be appropriately managed in accordance with the detailed EPRs. MLPL notes that a submission on the draft EIS was received from the West Gippsland Catchment Management Authority (WGCMA) which stated their satisfaction with the project. The revised EPRs have also been provided to the WGCMA who confirmed satisfaction with the proposed EPRs by letter dated 4 October 2024 (tabled as document 144 – <https://engage.vic.gov.au/download/document/37016>).



LEGEND

-  Underground HVDC cable
-  Road
-  Watercourse
-  Cadastre



0 35 70 m
 SCALE 1:3,500
 PAGE SIZE: A4
 PROJECTION: GDA2020 MGA Zone 55

SOURCE
 Proposed route from Tetra Tech Coffey.
 Place names, roads and watercourses from VICMAP.
 Imagery from Aerometrex (February 2021).

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EIS/EES

FIGURE 2

**V0441 and V0454
Little Morwell River**



9 Terrestrial ecology (Victoria)

The primary focus of public submissions on the draft EIS for terrestrial ecology related to potential impacts to Victorian matters, e.g. potential impacts to the *Flora and Fauna Guarantee Act 1988* (Vic) (FFG Act) listed species Tasman grass-wrack (*Heterozostera tasmanica*) and Narracan burrowing crayfish (*Engaeus phyllocercus*).

The following sections summarise considerations for terrestrial ecology relevant to MNES that occurred following exhibition of the draft EIS.

9.1 EPBC Act species listing updates

Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS considered the protection status, intactness, uniqueness or rarity, resilience to change and replacement potential when assessing the sensitivity of a value. In accordance with section 158A(2) and (4) of the EPBC Act, for the purpose of approval under the EPBC Act assessment of listed threatened species and communities (sections 18 and 18A EPBC Act) and listed migratory species (sections 20 and 20A EPBC Act) is not affected by listing decisions subsequent to 4 November 2021, when the project was determined to be a controlled action.

Since the draft EIS was exhibited, several species listings within Technical Appendix V: Terrestrial Ecology were updated from the time of the technical appendix assessment, as documented in the expert evidence from the ecology specialist. Some comments were made on this in submissions to the draft EIS and further information has been provided through the Victorian IAC process.

Although pursuant to section 158A EPBC Act the subsequent listing events are to be disregarded for the purpose of the Minister's decisions under the EPBC Act whether to approve the action and what conditions to attach to an approval, given the potential relevance of the change in species listing to the proponent's response to comments on the draft EIS, a revised significance impact assessment was completed for the Dwarf Galaxis and Latham's Snipe, and for completeness this is attached as Appendix F. The revised assessment against significant impact criteria found the project is not expected significantly impact the Dwarf Galaxis or Latham's Snipe.

Table 2 and Table 3 summarise the updates to EPBC Act species listings presented in the Technical Appendix V: Terrestrial Ecology, since the exhibition of the draft EIS and updates to assessment of significance. This updates species listing does not materially change the outcome of Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS.

Table 2 Clarifications to EPBC Act species listing (fauna)

Scientific name	Common name	EPBC Act listing in Technical Appendix V to the exhibited draft EIS	EPBC Act listing (as of October 2024)	Section/s of Technical Appendix V to the exhibited draft EIS that reference outdated EPBC Act listing	Updates to assessment of significance
<i>Ardea intermedia plumifera</i>	Plumed Egret	-	Ma	Appendix 2	N/A
<i>Ardenna grisea</i>	Sooty Shearwater	Ma, Mi	VU, Ma, Mi	Appendix 2	N/A
<i>Arenaria interpres</i>	Ruddy Turnstone	Ma, Mi	VU, Ma, Mi	Appendix 2	N/A
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Ma, Mi	VU, Ma, Mi	Table 24 Appendix 2	N/A
<i>Calidris canutus</i>	Red Knot	EN, Ma, Mi	VU, Ma, Mi	Table 3 Table 24 Appendix 2	N/A
<i>Calidris tenuirostris</i>	Great Knot	CE, Ma, Mi	VU, Ma, Mi	Appendix 2	N/A
<i>Galaxiella pusilla</i>	Dwarf Galaxis	VU	EN	Appendix 2 Table 27	Assessment under EN criteria found no update to assessment of significance.
<i>Gallinago hardwickii</i>	Latham's Snipe	Ma, Mi	VU, Ma, Mi	Table 3 Table 24 Table 27 Appendix 2	Assessment under VU criteria found no update to assessment of significance.
<i>Mastacomys fuscus mordicus</i>	Broad-toothed Rat	VU	EN	Appendix 2	N/A
<i>Monarcha melanopsis</i>	Black-faced Monarch	Ma, Mi	Ma	Appendix 2	N/A

Scientific name	Common name	EPBC Act listing in Technical Appendix V to the exhibited draft EIS	EPBC Act listing (as of October 2024)	Section/s of Technical Appendix V to the exhibited draft EIS that reference outdated EPBC Act listing	Updates to assessment of significance
<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Ma, Mi	Ma	Table A Table C Table 3 Table 24 Table 27 Table 38 Table 44 Table 45 Section 6.3 Section 8.3.2 Appendix 2	N/A
<i>Rhipidura rufifrons</i>	Rufous Fantail	Ma, Mi	Ma	Table A Table C Table 3 Table 24 Table 27 Table 38 Table 44 Table 4 Appendix 2 Appendix 4 Section 6.3 Section 8.3.2	Given Ma status, test of significance no longer required.
<i>Sternula nereis nereis</i>	Fairy Tern	Vu, Ma	VU	Appendix 2 Table 24 Table 3	N/A
<i>Tringa nebularia</i>	Common Greenshank	Ma, Mi	EN, Ma, Mi	Appendix 2	N/A

Table 3 Clarifications to EPBC species listing (flora)

Scientific name	Common name	EPBC listing in Technical Appendix V	EPBC listing as of October 2024	Section/s of Technical Appendix V that reference outdated EPBC listing	Updates to assessment of significance
<i>Thelymitra matthewsii</i>	Spiral Sun-orchid	VU	EN	Appendix 2	N/A

9.2 Native vegetation removal

The submission by the Victorian Department of Energy, Environment and Climate Action (DEECA) recommended updates to EPRs to address what they considered as uncertainty around the extent of native vegetation removal and offsets. The recommended updates would require the extent of native vegetation removal to be identified to the satisfaction of the Secretary of DEECA, having regard to final project design before the removal of vegetation.

Area of native vegetation removal identified in Technical Appendix V: Terrestrial ecology to the exhibited draft EIS was identified through desktop assessments, on-ground habitat condition assessments and on-ground targeted surveys. This area of native vegetation removal was used to generate offset (ENSYM) scenarios. The terrestrial ecology technical expert disagrees with DEECA in their submission that the level of assessment undertaken for Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS does not align with the requirements of *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) and is insufficient to assess the impacts to native vegetation and required offsets. For the purposes of the assessment of environmental effects, Technical Appendix V: Terrestrial Ecology (to the exhibited draft EIS) considers the actual values as assessed, not simply what is modelled or mapped in existing datasets.

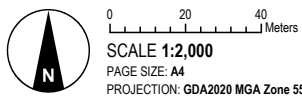
DEECA's submission stated the exhibited draft EIS does not describe the presence of the Victorian FFG Act listed Forest Red Gum Grassy Woodland Community. Since the exhibition of Technical Appendix V: Terrestrial Ecology as part of the draft EIS, EPR EC01 was revised to require the development and implementation of construction methods that avoid impacts to the Gippsland Red Gum (*Eucalyptus tereticornis subsp. Mediana*) Grassy Woodland and Associated Native Grassland and equivalent FFG Act listed Forest Red Gum Grassy Woodland Community and/or Central Gippsland Plains Grassland, including the related FFG Act listed threatened ecological community (TEC) located on McFarlane Road Hazelwood (as shown in Figure 3).



Map Book Page 27

LEGEND

- Threatened ecological community
- Proposed underground HVDC cable
- Proposed easement
- Major road
- Minor road
- Cadastre
- Survey area



SOURCE
 Proposed route from Tetra Tech Coffey.
 Threatened ecological community from Ecological.
 Place names, roads and cadastre from VICMAP.
 Imagery from Aerometrex (Feb 2021).

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FIGURE 3

McFarlane Road proposed HDD of threatened ecological community



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9.3 Threatened terrestrial fauna

DEECA's submission recommended further assessment of the potential impacts on shorebirds and shorebird habitat, based on the view that:

- The approach described in Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS does not take into consideration impacts arising from noise and disturbance to breeding or overwintering shorebirds.
- The draft EIS assumes there will be no impacts to shorebird habitat on the basis there will be no direct impacts to habitat with the coastal shore crossing proposed for HDD. In DEECA's view, this approach does not take into consideration impacts arising from noise and disturbance to breeding or overwintering shorebirds.
- No targeted surveys for shorebirds have been undertaken but presence was appropriately assumed for species likely to occur.

Technical Appendix V: Terrestrial Ecology (as exhibited with the draft EIS) does acknowledge the avoidance of direct impacts (removal or degradation of habitat) on shorebird habitat through use of HDD. It does assess the potential for indirect impacts on shorebirds including having regard to noise and light. Technical Appendix V: Terrestrial Ecology to the draft EIS does not consider the potential habitat at the shore crossing as optimal for many shore bird species, due to the disturbed nature of the adjoining agricultural land and the elevated nature of the dunes. The elevation of the dunes at the shore crossing also provides a physical barrier to potential noise and light pollution. Given these factors, the technical assessment found noise and light pollution will likely only impact species that use the habitat on the inland side of the dunes, closet to the HDD construction works.

The terrestrial ecology expert also considered the findings of relevant studies on the behavioural response of shorebirds to noise from the United Kingdom. The predicted noise levels (as assessed by Technical Appendix T: Noise and Vibration exhibited with the draft EIS) associated with HDD construction works did not exceed the levels at which these studies observed behavioural change. EPR EC02 requires the implementation of restrictions on works during sensitive life-stages within 100 m of priority habitats, including an area of the foreshore considered optimal habitat for shorebirds. In the opinion of the terrestrial ecology expert, following the implementation of measures to comply with EPRs, the impact of noise pollution associated with HDD construction works is likely low for shorebirds.

Further, targeted surveys were undertaken for the Hooded Plover (see section 5.9.9 of Technical Appendix V exhibited with the draft EIS). The assessment in Technical Appendix V: Terrestrial Ecology (as exhibited with the draft EIS) of shorebirds is considered accurate, and the post-mitigation impact is likely to be low for shorebirds.

DEECA's submission states the EIS/EES does not identify how many hollow bearing trees will be removed. This submission considers there to be a potential for significant adverse impacts to other threatened fauna species associated with the loss of hollow bearing trees. Appendix V: Terrestrial Ecology of the exhibited draft EIS confirms the assessment adopted a precautionary approach in the assessment of the hollow bearing trees, using the number of large trees as a proxy for the number of hollow-bearing trees. Prior to the commencement of project works, the terrestrial ecology EPRs require the completion of fauna utilisation surveys to identify hollow bearing trees in utilisation.

9.4 Koalas

Some submitters raised concerns around project impacts to koalas (*Phascolarctos cinereus victor*), specifically the Strzelecki koala. Koalas are not a listed species under the EPBC Act or the Victorian FFG Act, and therefore a targeted impact assessment was not completed for this species in Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS.

9.4.1 Vegetation removal

Koalas were recorded in the survey area during vegetation and habitat condition surveys or targeted surveys for threatened species. The presence and location of Koalas were documented in Technical Appendix V: Terrestrial Ecology to the exhibited draft EIS. Primarily, Koalas were recorded in recorded in the Great Southern Rail Trail (Tarwin Valley section) and Strzelecki Ranges.

Following the implementation of measures to comply with EPRs, the project will directly impact 1.87 ha of native vegetation in the Strzelecki Ranges, including 14 large trees. The project is expected to indirectly impact 0.41 ha and 9 large trees in the Strzelecki Ranges, following the implementation of measures to comply with EPRs. In total, the project is expected to directly and indirectly impact 0.021% of native vegetation recorded within the broader Strzelecki Ranges region.

The post-mitigation direct impact to native vegetation in the Great Southern Rail Trail (Tarwin Valley section) is 3.5 ha, including 15 large trees. A majority of this habitat is highly modified and fragmented, therefore is not considered suitable habitat for koalas. Given the quality of the vegetation the actual post-mitigation direct impact to native vegetation suitable for the koala is 0.21 ha. The impacts to native vegetation in the Great Southern Rail Trail (Tarwin Valley section) are temporal in nature and impact a small overall area of habitat within the broader region.

The expert report from the terrestrial ecology specialist as part of the Victorian IAC process (see Appendix D) confirmed that, based on the post-mitigation impacts to habitat, and with the implementation of measures to

comply with EPRs, the project is unlikely to lead to long term decrease in the size of the population or significantly reduce the areas of occupancy for the species.

9.4.2 Bushfire

Some submitters raised concerns around the potential impact of bushfire on koalas and suitable habitat for koalas. The response to comments in the expert report of the bushfire specialist as part of the Victorian IAC process confirmed that in the event of a fire ignition and escape, impacts to the Strzelecki Koala would be temporal in nature and very unlikely to affect the entire population.

10 Forestry (Victoria)

The submission from [REDACTED] raised concerns relating to potential impacts to forestry operations at their plantation coupes in the northern portion of the Victorian terrestrial alignment.

MLPL has engaged with [REDACTED] throughout the development of the project, including on matters relating to the refinement of the route to minimise impacts to forestry operations. As a direct outcome of discussions, the proposed route has been refined, where appropriate, to follow existing access tracks and easements, and boundaries of land parcels or coupes.

The following sections outline further information or conclusions reached by MLPL in relation to forestry impacts, following the exhibition of the draft EIS.

10.1 Direct impacts to operations

It is acknowledged that the project will have direct impacts on forestry operations during construction, and potentially operation due to limitations on deep-rooted tree planting directly within the 20 m cable easement. Technical Appendix K: Agriculture and forestry as exhibited with the draft EIS identifies a moderate residual impact to forestry from loss of wood and wood flows from the permanent clearing of trees or pre-mature harvesting of trees from within the project area, and loss of wood stock and reduced wood flow from introduced diseases.

As identified in Technical Appendix K: Agriculture and Forestry to the exhibited draft EIS, the easement will permanently remove an area of approximately 34.52 ha from production. This potential loss represents 0.6% of [REDACTED]'s Thorpdale plantation land (which comprises approximately 5,000 ha) and will be compensated through assessment in accordance with the applicable statutory processes. This area is a conservative assessment for the purposes of assessing impacts, which assumes the full extent of the easement is

situated on productive plantation land. As above, the proposed route has been refined, where appropriate, to follow existing access tracks and easements, and boundaries of land parcels or coupes to minimise impacts to forestry operations.

10.2 Land stability and erosion

Some submissions raised concerns around land stability and erosion, specifically around forestry areas.

The response to comments in the expert reports provided by the geomorphology/landslip and surface water technical specialists as part of the Victorian IAC process confirmed that the proposed EPRs are sufficient to manage impacts around erosion, stability and HDD operations in the context of forestry operations. In the opinion of the geomorphology/landslip technical experts (tabled as Document 34 – <https://engage.vic.gov.au/download/document/36389> and Document 73 – <https://engage.vic.gov.au/download/document/36710> to the IAC hearing), through the implementation of measures to comply with EPRs, appropriate engineering solutions can be developed to manage the potential impacts to geomorphic processes (including land stability and erosion) during construction.

10.3 Forestry-related EPRs and use of easement area

On 20 September 2024, technical specialists for MLPL in agriculture and geomorphology/landslip met with [REDACTED]'s forestry expert in a joint expert conclave to discuss:

- Any drafting changes to the EPRs relating to forestry (EPRs A01, A02, A03, A04 and A06).
- Any changes to easement use restrictions relating to forestry plantation practices and vehicles (EIS/EES Volume 4, Chapter 6 – Agriculture and Forestry and Technical Appendix K: Agriculture and Forestry to the exhibited draft EIS).

A brief conclave report was prepared to document the key discussion points (Document 82 – <https://engage.vic.gov.au/download/document/36740>). As an outcome of this workshop, minor updates were made to the agricultural and forestry EPRs (outlined further in section 15.2.2).

The joint experts conclave also proposed a review of Table 4-1 in Technical Appendix K: Agriculture and Forestry (as exhibited with the draft EIS) which provided a summary of permitted and restricted uses along the easement. The matter of restrictions on the use of land associated with the easement was also raised through submission.

This review was completed by MLPL and Table 4-1 was updated (tabled as Document 140a – <https://engage.vic.gov.au/download/document/37010> to the IAC hearing) to respond to matters raised through submissions, including:

- Permitting vehicles to park within the easement anywhere that is not directly above cables or joint pits.
- Permitting operating vehicles (contingent on vehicle type and weight) where cables are located under access tracks/roads within forestry plantations.
- Permitting log landing areas in locations that are not directly over the cables or cable infrastructure or joint pits.

The EPRs require the development and implementation of PMPs to inform property specific measures to avoid or minimise impacts to forestry operations. Each PMP will be informed by a property condition survey and prepared in consultation with the landholder. The PMP for [REDACTED] land parcels will consider impacts on forestry infrastructure and operations, such as log landings, log storage areas and the nature and timing of plantation crop activities, as well as including a rehabilitation strategy. Biosecurity controls and bushfire management protocols will be documented in the PMP.

11 Bushfire (Victoria)

The following key issues regarding bushfire have been raised since the draft EIS was exhibited:

- Fire risk associated with overhead transmission lines.
- Fire risk and impacts on Strzelecki Koala (see section 9.4.2 above).
- Fire risk during construction and restricted access to plantations.

As stated in Technical Appendix M: Bushfire to the exhibited draft EIS, with the implementation of EPRs the fire ignition risk can be very effectively avoided or suitably mitigated. The bushfire assessment (Technical Appendix M: Bushfire to the draft EIS) assessed the residual risk on all values to be insignificant.

The EPRs require the development and implementation of measures to avoid and manage ignition of fires during construction and operation. EPRs were updated since the draft EIS was exhibited, to reflect input from [REDACTED] to consider existing bushfire management arrangements and policies or procedures in forestry land as well as comments from the Country Fire Authority (CFA). Updates to EPRs are outlined in section 15.2.2.

12 Additional information provided to Tasmanian EPA

Separate EIS documentation has been prepared to assess potential impacts to Tasmanian state matters, addressing the requirements of the EPA Tasmania. In August 2024, the Tasmanian EPA completed their first adequacy review and provided comments on the two draft EISs prepared for the Tasmanian component (state legislation only).

The process of addressing review comments from the Tasmanian EPA resulted in updates or clarifications to project documentation exhibited with the draft EIS. This section provides an overview of changes made to technical impact assessments, as well as additional project information provided by MLPL in response to Tasmanian EPA comments.

We understand that the Tasmanian EPA sought comment from DCCEEW on the draft Tasmanian EIS documentation.

12.1 Mitigation measures

To address the EIS guidelines and assess the project under *Environmental Management and Pollution Control Act 1994* (EMPCA), the Tasmanian EPA requires the use of detailed mitigation measures in the Tasmanian EIS documentation (including technical reports) in place of EPRs.

In response to the direction from the Tasmanian EPA advice, the technical reports prepared to support the Tasmanian EISs only (i.e. not technical reports appended to the exhibited draft EIS), the Heybridge Terrestrial Ecology (Technical Appendix E to the draft EIS) and Heybridge Social (Technical Appendix F to the draft EIS) have been revised to adopt detailed mitigation measures in place of EPRs, to be assessed by the Tasmanian jurisdiction.

The mitigation measures detailed in the Tasmanian EISs are generally consistent with the nature of the EPRs in the draft EIS, while providing a more prescriptive framework for impact mitigation. The use of EPRs in the draft EIS provides flexibility and opportunities for innovation to achieve a required outcome. The Tasmanian EPA do not consider EPRs to be a suitable method of assessing the environmental impacts of the project on state matters.

For consistency as to terminology, the proposed EPRs relating to Tasmanian MNES have been framed as mitigation measures as preferred by EPA Tasmania, as reflected in Appendix B.

12.2 Project description

This section summaries the changes to the project description made by MLPL following the exhibition of the draft EIS.

12.2.1 HDD works

Since the exhibition of the draft EIS, the planned duration of the HDD works at the Heybridge shore crossing have changed from 12 months to 6 months. The change relates to the overall timeframe only and does not require additional changes to the specifications or quantity of equipment used during HDD construction. These changes were incorporated into the technical assessments that supporting the Tasmanian EIS, including addenda to the following attachments to the draft EIS: Heybridge terrestrial ecology and social impact assessments.

The Heybridge terrestrial ecology addendum report (Entura, 29 August 2024) confirmed there is no change in the ecological impact assessment associated with this shortening of the duration of HDD works. Amendments to the EPRs relating to Tasmanian ecology are incorporated in Appendix B. The Heybridge social impact addendum report (Tetra Tech Coffey, 19 September 2024) confirmed that, while this would reduce the duration of potential impacts on landscape and amenity relating to noise, vibration and visual disturbances from HDD activities, these impacts would continue to be assessed as being moderate to major pre-mitigation impacts and moderate to high residual impacts. Consequently, there is no change to the assessment outcomes or the proposed EPRs, other than reflecting the preference of EPA Tasmania that these be framed as mitigation measures rather than as EPRs.

12.2.2 Construction hours for Heybridge site

The technical assessments exhibited with the draft EIS considered the following hours for construction works at the Heybridge converter station site: 7:00 AM to 4:00 PM, Monday to Saturday.

In response to consultation with EPA Tasmania, MLPL has updated the construction work hours for the Heybridge converter station site to reflect EMPCA's permissible work hours, as follows: 7:00 AM to 6:00 PM Mondays through Fridays: 8:00 AM to 6:00 PM Saturday. These changes were incorporated into the addendums to Technical Appendix E: Heybridge Terrestrial Ecology and Technical Appendix F: Heybridge Social (as exhibited with the draft EIS).

The Heybridge terrestrial ecology addendum report (Entura, 29 August 2024) confirmed the increased night-time traffic on the Bass Highway caused by construction traffic for both components of the Project is not substantially increased, as it will remain below the 10% threshold at which the risk to Tasmanian devils and

spotted-tailed quolls is considered to be substantially increased (according to the *Survey Guidelines and Management Advice for Development Proposals that may impact the Tasmanian Devil*, Department of Natural Resources and Environment, 2023).

12.3 Tioxide pipeline

The proposed site for the Heybridge converter station is situated on the former site of a Tioxide factory. Two disused former effluent pipelines extend from the site under the shoreline to approximately 5 km offshore. The proposed project route crosses one of these disused pipelines. Since the draft EIS was exhibited, additional field investigations were conducted by MLPL to inform the proposed construction methodologies and whether potential contamination may occur if the pipeline were impacted by the project.

Field investigations comprised a visual assessment and sediment sampling where the proposed project alignment crosses the alignment of the disused tiioxide effluent outfall pipeline. The results were reviewed by the contaminated land and acid sulfate soils specialist. The proposed location the project alignment crosses the effluent pipeline is not considered a potential source of contamination and the concentrations of potential contaminants are assessed to be below the *Australian & New Zealand Guidelines (ANZG) toxicant default guideline values for sediment quality* (ANZG, 2024). The results of the field investigation do not change the conclusions regarding the potential for impacts of cable crossing construction on the sandy seabed fauna of the western palaeochannel presented in Technical Appendix H: Marine Ecology and Resource Use to the exhibited draft EIS, assessed as a residual risk of very low.

12.4 Cumulative impact assessment

For all technical reports appended to and exhibited with the draft EIS a consistent method for cumulative impact assessment was implemented. The method considered other relevant proposed and reasonably foreseeable projects based on their potential to credibly contribute to cumulative impacts, due to the location and timeframes of those projects coinciding with the project. Each technical study author considered the same list of relevant projects provided to them (as outlined in Volume 1, Chapter 5 of the exhibited draft EIS) and made a determination as to whether there was potential for positive or negative cumulative impacts to the values assessed in their study.

Since the exhibition of the draft EIS, and as a result of drafting the separate Tasmanian EIS documentation for state matters, additional potential cumulative impacts have been identified in Tasmania relating to the proposed NWTG projects for the Tasmanian air quality, electromagnetic fields, and noise and vibration studies. The additional cumulative impacts identified for these studies are summarised in Table 4 below.

The cumulative impact assessment outcomes for the Tasmanian terrestrial ecology and social impact assessments have not changed from the technical reports exhibited with the draft EIS (Technical Appendix E: Heybridge Terrestrial Ecology and Technical Appendix F: Heybridge Social).

Table 4 Summary of possible cumulative impacts from Remaining NWTD

Technical study	Potential cumulative impact	Proposed mitigation
Air quality	Dust generation from concurrent construction	Given the expected levels of dust generation and transient nature of construction works, with the implementation of proposed mitigations measures the expected impacts are negligible and temporary.
Electromagnetic fields	Additional electromagnetic fields from concurrent operation.	With the implementation of proposed mitigations measures, impacts from electromagnetic fields on human health and other technologies from the operational projects is expected to be negligible.
Noise and vibration	Cumulative noise impacts from concurrent construction and operation.	Given the transient nature of constructions works and separation distance between the two projects the potential for cumulative noise impacts during construction is low. The combined operational noise of the project and NWTD is not expected to represent a noise compliance consideration for the project.

13 Terrestrial ecology (Tasmania)

To address review comments from the Tasmanian EPA on the Heybridge terrestrial ecology assessment (Technical Appendix E: Heybridge Terrestrial Ecology to the draft EIS) a technical addendum was prepared by the technical specialists. This approach was taken to avoid changes to the exhibited version of Technical Appendix E: Heybridge Terrestrial Ecology. The key matters addressed in the terrestrial ecology technical addendum (in response to Tasmanian EPA comments) are summarised below, and include:

- Declared weeds and clarification on status.
- Native fauna species and consideration of night-time construction and operational lighting.
- Tasmanian wedge-tailed eagles and clarification on proposed mitigation measures.
- Traffic movements and potential vehicle strikes on threatened fauna species.

13.1.1 Declared weeds

The following declared weeds that occur within the Heybridge survey area listed in section 6.8.1 of Technical Appendix E: Heybridge Terrestrial Ecology exhibited with the draft EIS are also weeds of national significance:

- Boneseed (*Chrysanthemoides monilifera subsp. Monilifera*)
- Blackberry (*Rubus fruticosus aggregate*)
- Gorse (*Ulex europaeus*)

The significance of the risk of introducing weeds, pests and diseases to the vegetation communities present in the survey area was assessed as low in the Technical Appendix E: Heybridge Terrestrial Ecology exhibited with the draft EIS. This conclusion has not changed following the preparation of the technical addendum.

13.1.2 Native fauna species

In response to Tasmanian EPA comments on Technical Appendix E: Heybridge Terrestrial Ecology to the exhibited draft EIS, the following measures outlined in the Commonwealth *National Light Pollution Guidelines for Wildlife: Appendix A (Best Practice Lighting Design)* have been recommended to manage impacts of night-time lighting on nocturnal fauna:

- Night-time lighting required for the 24-hour operation of the HDD works will be minimised to the greatest extent practicable.
- Red light will be used at night where possible.

With existing night-time anthropogenic lighting associated with the Bass Highway and residential buildings surrounding the Heybridge site, the terrestrial ecology impact assessment found that the additional night-time lighting associated with the project was not likely to result in increased risk of disorientation or collisions by nocturnal fauna.

13.1.3 Tasmanian wedge-tailed eagle

In response to Tasmanian EPA comments on the approach used to classify the nearest known nest as absent (nest #1323 located 1.6 km from the project site), clarification has been made that the classification was based on three consecutive aerial searches having failed to locate this nest despite targeted search effort.

As stated in EPR EC03 (Tas) included in the exhibited draft EIS, aerial eagle nest searches are required within 12 months prior to the commencement of construction, and then annually for the duration of construction. Any newly constructed eagle nests near the Heybridge site will be detected and managed in accordance with the relevant requirements and guidelines, including the Commonwealth's *Survey Guidelines for Australia's Threatened Birds* (Department of the Environment, Water, Heritage and the Arts, 2010).

13.1.4 Traffic movements and vehicle strikes

The night-time traffic calculations used to assess the risk of vehicle strikes to devils and quolls in Technical Appendix E: Heybridge Terrestrial Ecology exhibited with the draft EIS were based on a 6-day working week and 7:00 AM to 4:00 PM working day. Since the exhibition of the EIS, the construction times for the Heybridge converter station have been revised to reflect permissible hours under EMPCA. The calculations for night-time increases in vehicle movements to and from site relative to recent traffic have been updated to reflect permissible hours for works expected to be as follows: 7:00 AM to 6:00 PM Mondays through Fridays; 8:00 AM to 6:00 PM Saturday and 10:00 AM to 6:00 PM Sunday.

The estimated increase in night-time traffic for the converter station construction exhibited draft EIS are 3.2% for the Bass Highway and 165% for Minna Road. In response to updating the construction work hours to reflect EMPCA's permissible hours, the estimated increase in night-time traffic for the converter station construction are 4.0% for the Bass Highway and 204% Minna Road.

Technical Appendix E: Heybridge Terrestrial Ecology exhibited with the draft EIS assessed the residual impact on Tasmanian devils and Spotted-tail quolls as low. With the revised night-time traffic calculations and required measures, roadkill impacts on the Tasmanian devils and spotted-tailed quolls are considered to be of negligible magnitude to the species and therefore remain a low residual impact.

14 Social (Tasmania)

The Tasmanian EPA had no key comments on the Tasmanian social impact assessment (Technical Appendix F to the exhibited draft EIS) as part of their review of the Tasmanian EIS documentation, however several key changes were required to the noise and vibration study relating to the assessment method used. The social technical expert considered the changes to the noise and vibration assessment method and the possible implications on the social impact assessment, from a social perspective.

Despite the change in assessment method for the noise and vibration study, the conclusions of significant impact assessment rating in the social impact assessment in relation to noise disturbance have not changed. Without the implementation of appropriate mitigation measures there is a potential for sleep disturbance to occur at future residential sensitive receivers (not yet constructed, located within an approved residential

subdivision south-west of the Heybridge converter station site), if these locations are developed and occupied during project construction works, specifically the HDD shore crossing works.

Technical Appendix F: Heybridge Social to the draft EIS has assessed the potential impact of night-time works exceeding sleep disturbance thresholds as a major residual impact. This assessment was based on the potential impacts of sleep disturbance on health and wellbeing for residents. Therefore, no change to the exhibited Technical Appendix F: Heybridge Social is required.

15 Environmental Management Framework and Environmental Performance Requirements

Since the exhibition of the draft EIS, the environmental management framework (Volume 5, Chapter 2 of the exhibited draft EIS) and EPRs were revised to reflect further review and recommendations from technical specialists, matters raised in public submissions, and other matters raised during the panel process.

The revised environmental management framework, including updated EPRs (tabled as Document 142 – <https://engage.vic.gov.au/download/document/37014> and Document 143 – <https://engage.vic.gov.au/download/document/37015> to the IAC hearing) and mitigation measures reflecting updates provided to EPA Tasmania, are provided in Appendix B.

15.1 Environmental management framework

Table 2-4 in the environmental management framework (Volume 5, Chapter 2 of the draft EIS) outlines the roles and responsibilities of MLPL and the Independent Environmental Auditor (IEA) was updated following exhibition of the draft EIS, to clarify and ensure consistency in the role of an IEA prior to construction. The environmental management framework was also updated to reflect the proposed procedures for management of changes to project documents and plans and in response to comments from the EPA Victoria. The latter changes include update to Table 2-6 to specify that the construction environment management plan (CEMP) required under EPR EM02 and sub plans are to:

- Include a protocol for using and maintaining plant, equipment, processes and systems to minimise risk of harm from pollution and waste.
- Include protocol for ensuring management of substances in accordance with EPA guidelines.
- Include protocol for complaint, with a reference to EPR S03.

- Include a protocol for emergency preparedness and response including containment of environmental damage.

15.2 Environmental performance requirements and mitigation measures

15.2.1 Constructability workshop

In preparation for the Victorian IAC hearing, MLPL conducted a constructability workshop with the groundwater, surface water, contaminated land and acid sulfate soils, and geomorphology/landslip technical experts. The intention of the workshop was to complete a detailed technical review of the interrelated soils and water EPRs, to test and refine the suitability of proposed EPRs in managing impacts from the project, and to confirm that engineering responses to residual risks were available and implementable.

As an outcome of this workshop, the groundwater, surface water and geomorphology and soils EPRs were revised and incorporated into the revised EPRs provided in Appendix B, and summarised below.

15.2.2 Updated EPRs (Victoria, marine and whole-of-project)

In preparation for expert witness evidence for the Victorian IAC hearing, technical specialists reviewed and recommended amendments to EPRs. Updates to EPRs were also made in consideration of matters raised by submitters and panel process, including as an outcome of workshops or technical expert conclaves, and from legal review. Updates were made in response to exchange of correspondence with EPA Victoria dated 30 August 2024 and CFA dated 3 October 2024. As noted above, WGCMA confirmed it was satisfied with updates to the surface water EPRs in its letter dated 4 October 2024 (tabled as Document 144 – <https://engage.vic.gov.au/download/document/37016>)

This section provides a summary of changes to the EPRs exhibited with the draft EIS, provided in full in Appendix B.

Environmental management:

- Clarify the subplans required under the CEMP to be verified by the IEA.

Agriculture and forestry (Vic):

- A01 updated to clarify property condition surveys must be informed by consultation with the landholder.
- A02 updated to require PMP have regard to existing bushfire management arrangements and policies or procedures.

- A03 updated to require compacting subsoil to 90% of in-situ soil strength or otherwise as agreed by the landholder.
- A01 updated to consider log storage areas and log landings when completing property condition surveys prior to construction.
- A02 updated to include consideration of forestry operations, such as log landings, log storage areas and the nature and timing of plantation crop activities, when preparing PMPs.

Air quality (Vic):

- AQ01 updated to include requirement for the construction dust management plan to describe processes to ensure appropriate implementation and regular assessment of measures.

Bushfire (Vic):

- BF01 updated to require consultation with the relevant fire authority and, as relevant, any industry brigade when developing the bushfire protocol.
- BF03 updated to include more detail around requirements of Bushfire Emergency Management Plan (BEMP) and clarify that the bushfire protocol is to be referenced in the BEMP.
- BF03 updated to require the BEMP to be informed by consultation with relevant fire authority and, as relevant, any industry brigade.
- BF03 and BF04 updated to include site based exposure requirements for work sites and laydown areas.

Contaminated land and acid sulfate soils (Vic):

- CL02 and CL03 updated to remove requirement for EPA Victoria to be consulted in preparation of environment management plans, per submission of EPA Victoria.
- CL01 and CL02 updated to identify specific parcels requiring further investigations to confirm the potential presence of contamination.
- CL03 updated to refer to EPA Publication 655.1: Acid Sulfate Soil and Rock, and update requirement for assessment and development of an ASS management plan to refer to National Acid Sulfate Soils Guidance – National acid sulfate soils sampling and identification methods manual June 2018.

Geomorphology and soils (Vic):

- GM01 updated to include additional detail to around typical site investigation and analysis.
- GM02 amended to provide more specific actions to develop appropriate design and construction methodology. Amend GM09 to provide clarification on requirements for water way crossing using trenching or HDD.
- New EPR GM10 added to manage potential impacts to and from ground stability in operation.

- Minor updates and clarifications were also made to GM03, GM04, GM05, GM06, GM07 and GM08.

Groundwater (Vic):

- GW01 amended to include site inspections and investigations to identify potential Groundwater Dependent Ecosystems (GDEs) or unregistered groundwater users within predicted construction dewatering zones.
- GW02 updated for construction method to include contingency measures to manage groundwater inflow rates that may be higher than predicted.
- GW03 amended to specify the use of appropriate well construction materials based on local ground conditions.
- GW05 and GW06 updated to remove requirement for consultation with EPA Victoria.
- GW07 amended to clarify measures to prevent groundwater acidification should consider all locations where acid sulfate soils may exist, not just in the coastal zone.
- GW08 amended to include measures for maintained water supply to registered and unregistered groundwater users.
- New GM10 included to develop and implement practicable measures to avoid or control water pressure build-up along cable conduits.

Landscape and visual (Vic):

- LV02 and LV03 updated to place design requirements specifically on the above ground infrastructure at the location of the converter station and potential transition station.

Noise and vibration (Vic):

- NV01 amended to remove requirement for consultation with EPA Victoria in preparing the operation noise management plan, in accordance with EPA Victoria's recommendation

Surface water (Vic):

- SW01, SW03 and SW04 updated to require consideration of the timing and duration of mitigation measures for any interim periods between construction staging, following recommendations in the technical specialist's supplementary technical assessment (refer section 2.2.3 above).
- SW01 updated to require consideration of aquatic habitat.
- SW01 updated to include linkages to GM08 and GM09.
- SW04 updated to removed reference to consultation with EPA Victoria, per EPA Victoria submission.

Social (Vic):

- S01 revised to remove requirement for social impact management plan.

- S01 includes details required in a worker health and safety plan.
- S03 updated to require community and stakeholder engagement framework to be consistent with IAP2 principles and guidance in the Department of Climate Change, Energy, the Environment and Water National guidelines – Community engagement and benefits for electricity transmission projects.
- S03 updated to require the community and stakeholder engagement framework to clarify the specific stakeholders to be identified.
- S03 updated to include further detail for communication protocols and tools, including information on areas identified as important to communities for which communication and engagement will be important in managing social impacts.
- New EPR added S06: to require engagement with local emergency service providers to be reflected in the project’s emergency response plan and procedures.

Terrestrial ecology (Vic):

- EC03 updated to reflect preference for trenchless construction methods (such as HDD) or project alignment changes where reasonably practicable at the Little Morwell River crossing.

15.2.3 Updated mitigation measures (Tasmania)

As outlined in Section 12.1, following their review of the separate Tasmanian EIS documentation, the Tasmanian EPA required the adoption of detailed mitigation measures in place of EPRs, for matters to be assessed under the Tasmanian jurisdiction. This required changes to technical reports prepared to support the separate Tasmanian EISs, except where appended to the exhibited draft EIS. The mitigation measures detailed in the Tasmanian EISs are generally consistent with the nature and intent of the EPRs in the draft EIS, while providing a more prescriptive framework for impact mitigation as required by the Tasmanian EPA.

Technical Appendix E: Heybridge Terrestrial Ecology exhibited with the draft EIS provided recommendations for measures to comply with EPRs. These, along with further recommended measures detailed in the addendum to Technical Appendix E to the exhibited draft EIS (prepared to respond to the Tasmanian EPA review comments) have been used to inform the committed mitigation measures for terrestrial ecology in the Tasmanian EISs (section 13).

In developing mitigation measures for the Tasmanian social impact assessment, the technical expert considered amendments made to the Victorian social EPRs as described above and in Appendix B.