


ENVIRONMENTAL IMPACT STATEMENT - HEYBRIDGE SHORE CROSSING



January 2025



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.



MARINUS
LINK

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Marinus Link, Environmental Impact Statement – Heybridge Shore Crossing (2024).

This assessment concerns a proposed development at the intersection of Minna Road and Bass Highway, Heybridge, Tasmania.

Responsibilities

This document is the responsibility of the Marinus Link Team, Marinus Link Pty Ltd, PO Box 721, Hobart Tasmania 7001, ABN 47 630 194 562 (hereafter referred to as "Marinus Link").

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Abbreviations

Acronym and abbreviation	Definition
μPa	Micropascal
μT	Microteslas
ABS	Australian Bureau of Statistics
ACM	Asbestos containing materials
AEMO	Australian Energy Market Operator
AEP	Annual exceedance probability
ASS	Acid sulfate soils
AMSA	Australian Maritime Safety Authority
BIA	Biologically Important Area
BoM	Bureau of Meteorology
CEMP	Construction Environmental Management Plan
CFEV	Conservation of Freshwater Ecosystem Values
CNVG	Construction Noise and Vibration Guidelines
CO ₂	Carbon dioxide
Cwth	Commonwealth
DAWE	Department of Agriculture, Water and the Environment
dB	Decibel
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DGV	Default guideline value
DPIWE	Department of Primary Industries, Water and Environment
DVC	<i>Eucalyptus viminalis</i> – <i>Eucalyptus globulus</i> coastal forest and woodland
EIS	Environmental Impact Statement
EES	Environment Effects Statement
EIS guidelines	EIS Guidelines: Heybridge Converter Station for Marinus Link September 2022
EMF	Electromagnetic fields
EMPC Act	<i>Environmental Management and Pollution Control Act 1994</i>
EMS	Environmental Management System
EPA	Environment Protection Authority Tasmania
EPBC Act	<i>Environment Protection and Biodiversity Act 1999</i>
EPP	Tasmanian Environment Protection Policy
EPRs	Environmental performance requirements
ESD	Ecologically sustainable development
FPA	Forest Practices Authority
FTE	Full time equivalent
GDE	Groundwater dependant ecosystem
GHG	Greenhouse gas
GW	Gigawatt
ha	Hectare
HDD	Horizontal directional drilling
HF	High-frequency
HVAC	High voltage alternating current
HVDC	High voltage direct current

Acronym and abbreviation	Definition
IAQM	Institute of Air Quality Management
ISP	Integrated service plan
IMS	Invasive marine species
km	Kilometre
kV	kilovolt
L _{Aeq}	A-weighted, equivalent continuous sound level
LF	Low-frequency
LMRM Act	<i>Living Marine Resources Management Act 1995</i>
LGA	Local government area
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
MF	Mid-frequency
mg/L	milligrams per litre
MLPL	Marinus Link Pty Ltd (the proponent)
MNES	Matters of National Environmental Significance
MW	Megawatts
NM	nautical miles
N/m ²	Newton per metre squared
NC Act	<i>Nature Conservation Act 2002</i>
NEM	National electricity market
NEPM	National Environment Protection Measure
NRE	Department of Natural Resources and Environment Tasmania
NSESD	National Strategy for Ecologically Sustainable Development (1992)
NSW ICNG	The New South Wales <i>Interim Construction Noise Guideline</i>
NVA	Natural Values Atlas
NWTD	North West Transmission Developments
OEI Act	<i>Offshore Electricity Infrastructure Act 2021</i>
OEMP	Operational Environmental Management Plan
PEVs	Protected environmental values
PFAS	Poly-fluoroalkyl substances
PFOS	Perfluorooctane sulfonate
PM _{2.5}	Particles with a diameter of 2.5 micrometres or less
PM ₁₀	Particles with a diameter of 10 micrometres or less
PMST	Protected matters search tool
PTS	Permanent threshold shift
RBL	Rating background level
REZ	Renewable energy zone
SF ₆	Sulfur hexafluoride
SESSF	Southern and Eastern Scalefish and Shark Fishery
SPL	sound pressure level
tCO ₂ -e	Tonnes of carbon dioxide equivalent
TasNetworks	Tasmanian Networks Pty Ltd
TDS	Total dissolved solid
The LIST	Land Information System Tasmania
TSP Act	<i>Threatened Species Protection Act 1995</i>

Acronym and abbreviation	Definition
TTS	Temporary threshold shift
WQOs	Water quality objectives

Glossary

Term	Definition
acid sulfate soils	Naturally occurring soils, sediments or organic substrates formed under waterlogged conditions. These soils contain iron sulphide minerals or their oxidation products. In an undisturbed state below the water table, acid sulphate soils are benign. However, if the soils are drained, excavated or exposed to air by a lowering of the water table, the sulphides react with oxygen to form sulphuric acid.
acidic	Conditions or properties with a pH less than 7.
active transport	Transport involving activities such as walking or cycling.
anthropogenic	Effects, processes or materials originating from human activities.
aquifer	A formation of rock or sediment that is saturated with water and sufficiently permeable to transit quantities of water to wells and springs.
artefact	An object thought to be produced by a human being that is culturally or historically significant.
arterial	Arterial roads provide a major thorough fair and carry a large volume of traffic though a region. They are declared under the <i>Roads and Jetties Act 1935</i> and managed by the Department of State Growth on behalf of the Tasmanian Government.
ballast water	Water held by vessels used to provide stability and manoeuvrability.
baseline conditions	The existing environmental conditions, including physical, chemical, and biological characteristics of an area, established before the commencement of any construction or development activities.
bathymetry	The measurement of depth of water in oceans, seas, or lakes.
bed	Unconsolidated material, or sediment mixture, of which the bottom of a stream or sea is composed.
benthic	Related to flora and fauna at the bottom or in the sediment of a body of water.
bioregion	A natural ecological community or region in which the biodiversity and ecosystem are distinct due to topographic and biological features such as mountain ranges.
catchment	The collection of rainfall over a natural drainage area.
cephalopods	An active predatory mollusc of the large class <i>cephalopoda</i> , such as an octopus or squid.
cetaceans	A marine mammal classified into the order <i>cetacea</i> . Examples of cetaceans include whales, dolphins and porpoises.
conduit	A natural or artificial channel through which something (such as a cable) is conveyed.
construction	Construction of the proposal comprises all work required to construct the proposal as described in Section 2.3 of this EIS (but may exclude low impact works)
core	A lump of stone that has been struck by another lump of stone, producing smaller stone pieces or 'flakes'.
cumulative impacts	Changes that are caused by a combined impact of other projects that occur at the same time and within the vicinity of the Marinus Link project in Tasmania.
decommissioning	The act of permanently removing infrastructure from operation; involving such activities as assessment of alternatives uses (including continued use for the same purpose, conversion to another use or retention in-situ for possible future use), safe isolation (and purging) of hazardous infrastructure for removal or in-situ retention (underground infrastructure) remediation of contaminated land, demolition and disposal of above ground infrastructure, and rehabilitation of site in accordance with standards and guidelines applicable at the time.
demersal	Term used to associate an animal that lives close to the bottom of a body of water.

Term	Definition
dewatering	The process of pumping or draining water from an excavation.
discharge	Removal of water from or flow out of an aquifer, including flow to surface water, another aquifer, or artificial means such as pumping.
dispatchable energy	Electricity supply that can easily be turned on and off in response to demand and at short notice
disturbance	The physical displacement of existing features that may lead to impacts.
drainage	A hydrologic process where surface or sub-surface water flows within an area or a catchment.
drilling fluid	Any of a number of liquid and gaseous fluids and mixtures of fluids and solids used in operations to drill boreholes into the earth.
earthworks	Activity to excavate and haul earth.
ecosystem	An interacting system of animals, plants, other organisms and non-living parts of the environment.
elasmobranchs	A cartilaginous fish of a group that comprises the sharks, rays, and skates.
electromagnetic field	A field of force containing electrical and magnetic.
electromagnetic interference	Unwanted noise or interference in an electrical path or circuit caused by an outside source.
erosion	The process of gradually wearing away exposed soil, earth, or rock surfaces by an abrasive action such as wind and water or other natural agents.
First Peoples	Culturally distinct ethnic groups who are native to a place which has been colonised and settled by another ethnic group.
geology	Geology is the study of the rocks of which the Earth is composed.
geomorphology	Geomorphology is the study of the Earth's physical features, the processes that shape them and their change over time.
greenhouse gas	A gas that contributes to the greenhouse effect by absorbing infrared radiation and redirecting it back onto the earth's surface.
groundwater	Water stored in geological formations below the land surface.
groundwater dependent ecosystems	Natural terrestrial and aquatic (both saline and fresh) ecosystems that require access to groundwater to meet all or some of their water requirements to maintain their ecological communities, processes and services.
Heybridge Converter Station Site	The Heybridge Converter Station site as shown in Figure 2-1.
horizontal direct drilling	Drilling technique used to install underground pipes, cables or conduits without disturbing the ground surface.
impact assessment	Formal process of identifying and evaluating the actions and changes of a process.
infauna	Animals living in the sediments of oceans, rivers or lakes.
infrastructure	The supporting installations and services that supply the needs of a project.
in-situ	In the original location or place.
landform	A feature of the earth's surface.
launch pad site	Means the two temporary horizontal directional drill launch pads as part of the proposal site. The only part of the proposal site that involves pre-construction and construction activities above ground (on land). In the future, where the subsea cables connect with the Heybridge Converter Station. It is on land owned by Marinus Link Pty Ltd within the Heybridge Converter Station site and the connection to the Heybridge Converter Station is considered within the Heybridge Converter Station EIS.
low impact works	Low impact works include: <ul style="list-style-type: none"> • Ground preparation (that is not earthworks), e.g., grubbing, pot holing, stump removal, weed control. • Clearing of vegetation.

Term	Definition
	<ul style="list-style-type: none"> • Site access works for the purpose of undertaking low impact works. • Works associated with minor utilities including modification or relocation of existing utilities. • Installation of temporary services, temporary fencing, temporary parking, or temporary buildings. • Installation of any noise barriers or site signage. • Replacement and/or repair of existing boundary fencing. <p>Low impact work becomes 'Construction' with the approval or endorsement of a CEMP.</p>
magnetosensitive	Receivers that are affected by the strength or orientation of a magnetic field
macroalgae	Aquatic plants that form underwater that are visible with the naked eye. Commonly referred to as 'seaweed'.
macroinvertebrates	Animals that do not contain a backbone and are large enough to be visible to the naked eye.
outcrop	A rock formation that is visible on the surface.
paleochannel	Remnant of an inactive river or stream that has been covered with younger sediment.
particulate	Of, relating to, or in the form of a minute separate particles.
pelagic	Term referring to the open ocean away from the shoreline.
pH	A parameter used to indicate acidity or alkalinity in soils and is measured in pH units.
pinnipeds	A carnivorous aquatic fin-footed mammal of the order Pinnipedia, comprising of seals, sea lions and the walrus.
principal contractor	Contractors directly engaged by MLPL for works packages. Principal contractors may engage sub-contractors to perform project works.
project approvals	Includes all primary approvals and key secondary consents.
project alignment	The cable route and survey area that has been assessed in the EIS.
proposal site	<p>The proposal site includes:</p> <ul style="list-style-type: none"> • the launch pad site • the underground crossings; and • the seabed alignments.
Quaternary	Relating to or denoting the most recent period in the Cenozoic era, following the tertiary period and comprising of the Pleistocene and Holocene epochs.
rating background level	The overall single figure background noise level representing each assessment period (day/evening/night) over the whole monitoring period. This is the level used for assessment purposes.
runoff	Portion of water that flows from a specific land area, surface or facility; water shedding from the land or a facility.
salinity	The dissolved salt content of a body of water.
scour	Refers to the erosion of base layer sediment caused by water.
seabed alignments	Subsea cable installation from the HDD exit point (at approximately 10 m water depth) to within 3 nautical miles within Tasmanian coastal waters. Once in Bass Strait, the subsea cables would be laid in two bundles that each comprise two power cables and one fibre-optic cable (referred to as the site of the seabed alignment).
sediments	The solid material that can be transported through a channel by stream flow.

Term	Definition
sensitive receptor	Locations or groups that may be adversely affected by environmental impacts, such as noise, air quality, or changes to natural habitats; often includes residential areas, schools, hospitals, and parks.
soil	The upper layer of material covering the Earth's surface. It comprises inorganic and organic particles, air, water and living organisms.
species	The basic category of biological classification, intended to designate a single kind of animal or plant, any variations existing among the individuals being regarded as not affecting the essential sameness which distinguishes them from all other organisms within the category.
stakeholder	Individuals, organisations, and groups with an interest in the project.
study area	The area required to characterise baseline conditions and to enable assessment of impacts for each technical study. The study area would vary for each technical study and may be larger or smaller than the survey area.
substrate	An underlying layer. The surface or material on or from which an organism lives, grows or feeds.
survey area	The area that was subject to ground surveys. The survey area would vary for each technical study and may be larger or smaller than the study area.
underground crossings	Six HDD bores, and cable installation, from the HDD launch pads and drilled below Bass Highway and the Western Line Railway extending approximately 1 km into Bass Strait (at approximately 10 m water depth) (referred to as the site of the underground crossings).
The project	Marinus Link project
The proponent	Marinus Link Pty Ltd
The proposal	Heybridge Shore Crossing
threatened species	Species of flora or fauna that are at risk of extinction. The term "threatened" is applied to species and ecological communities that are considered "critically endangered", "endangered" or "vulnerable" under state or Commonwealth legislation.
topography	The arrangement of the natural and artificial physical features of an area.
turbidity	The quality of being cloudy, opaque, or thick with suspended material.
watercourse	Ephemeral or permanent flow of water in a natural drainage line including river, creek and stream.
water table	The upper limit of ground saturated with water.
wetland	Area in which the soil is frequently or permanently with or under water.