

# Abbreviations

Abbreviation	Definition
°C	Degrees Celsius
µg	Microgram
µg/L	Micrograms per litre
µg/m <sup>3</sup>	Micrograms per cubic metre
AECOM	AECOM Australia Pty Ltd
ACCC	Australian Competition and Consumer Commission
ACF	Australian Conservation Foundation
AEMO	Australian Energy Market Operator
AFLW	Australian Football League Women's
AGM	Annual General Meetings
AHD	Acoustic Harassment Devices
APGA	Australian Pipelines and Gas Association
ASS	Acid Sulphate Soils
AQAC	Air quality assessment criteria
BAT	Best Available Technology
BW	Bergesen Worldwide
CALD	Culturally and Linguistically Diverse
CASS	Coastal Acid Sulfate Soils
CASS BPMG	Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soils
CEO	Chief Executive Officer
CBP	Chlorinated by-products
CDF	Controlled discharge facilities
CEE	Consulting Environmental Engineers Pty Ltd
CEMP	Construction Environmental Management Plans
CFA	Country Fire Authority
CFD	Computational Fluid Dynamics

Abbreviation	Definition
CHMP	Cultural Heritage Management Plan
CNVMP	Construction noise and vibration management plan
CO	Carbon monoxide
CPO	Chlorine-producing oxidants
CSMP	Construction Safety Management Plan
Cth	Commonwealth
CVA	Cultural Values Assessment
dB	Decibels
dB(A)	A-weighted decibel
DAWR	(former) Department of Agriculture and Water Resources
DEECA	Department of Energy, Environment and Climate Action
DGV	Default guideline values
DMG	Dredged material ground
DNMP	Dredging Noise Management Plan
DNV GL	Det Norske Veritas
DTP	Department of Transport and Planning
EAAF	East Asian-Australasian Flyway
EE Act	Environment Effects Act 1978 (Vic)
EES	Environment Effects Statement
EMF	Environmental Management Framework
EMP	Environment Management Plan
EPBC Act	Environment Protection and Biodiversity Conservation Act (1999)
EPA	Environment Protection Authority
EP Act	Environment Protection Act 2017 (Vic)
ESO2	Environmental Significance Overlay 2
ESO4	Environmental Significance Overlay 4
ERS	Environment Reference Standard
ESV	Energy Safe Victoria
EV	Electric vehicle
FFG Act	Flora and Fauna Guarantee Act 1988 (Vic)
FID	Final Investment Decision
FPSR	First Peoples - State Relations
FSRU	Floating storage regasification unit
FZ	Farming Zone
GED	General Environmental Duty

Abbreviation	Definition
GGPS	Greater Geelong Planning Scheme
GGs	Geelong Grammar School
GHG	Greenhouse Gas
g/s	Gram per second
g/min	Gram per minute
ha	hectare
HAP	Hazardous air pollutants
HSSE MS	Health, Safety, Security & Environmental Management System
IAC	Inquiry and Advisory Committee
IAP2	International Association for Public Participation
IEA	Independent Environmental Auditor(s)
IN2Z	Industrial 2 Zone
ISO	International Organisation for Standardisation
km	Kilometres
kt	Kilotons
kW	Kilowatt
L	Litres
LAF	low aromatic fuel
LGM	Last glacial maximum
LNG	Liquified natural gas
L&T	Lawson and Treloar
m	Metre(s)
m <sup>3</sup>	Cubic metres
MPB	Microphytobenthos
mg	Milligram
MHF	Major Hazard Facility
mm	Millimetres
ml	Millilitres
ML	Megalitres

Abbreviation	Definition
MLA	Marine loading arms
MNES	Matter of National Environmental Significance
MW	Megawatt
NGZ	No-Go Zones
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Nitrogen oxides
NTGVVP	Natural Temperate Grassland of the Victorian Volcanic Plain
NTU	Nephelometric Turbidity Unit
OEMP	Operational Environmental Management Plan
OD	Over dimensional
OHS Act	Occupational Health and Safety Act 2004
PAH	Polycyclic aromatic hydrocarbons
PASS	Potential acid sulphate soils
PCP	Pipeline Consultation Plan
PCRZ	Public Conservation and Resource Zone
PM <sub>10</sub>	Particulate matter 10 micrometres or less in diameter
PMST	Protected Matters Search Tool
PPA	Power Purchase Agreement
PPRZ	Public Park and Recreation Zone
PZ	Port Zone
RAP	Registered Aboriginal Party
RLZ	Rural Living Zone
ROW	Right of way
RSA	Road safety audits
SDS	Safety Data Sheets
SMP	Safety Management Plan
SCO	Specific Controls Overlay
SO <sub>2</sub>	Sulfur dioxide
SS	Suspended solids
Stantec	Stantec Australia Pty Ltd
SWP	South West Pipeline
TJ/d	Terajoules per day
t/yr	Tonne per year

Abbreviation	Definition
TMP	Traffic Management Plan
TRG	Technical Reference Group
THMs	Trihalomethanes
TUC	Towed underwater camera
UHJ	Undular hydraulic jump
USEPA	United States Environment Protection Agency
UV	Ultraviolet
VAHR	Victorian Aboriginal Heritage Register
VBA	Victorian Biodiversity Atlas
Viva Energy	Viva Energy Gas Australia Pty Ltd
VOC	Volatile organic compound
VTS	Victorian Transmission System
WAMSI	Western Australian Marine Science Institution
WoNS	Weeds of National Environmental Significance
WSV	WorkSafe Victoria
WTOAC	Wadawurrung Traditional Owners Aboriginal Corporation

# Glossary of Terms

Term	Definition
Aboriginal cultural archaeological site	Artefacts and relics such as eel traps, fish traps, stone artefacts, shell middens and mounds
Aboriginal place	An area in Victoria or the coastal waters of Victoria that is of cultural heritage significance to Aboriginal people generally or of a particular community or group of Aboriginal people ( <i>Aboriginal Heritage Act 2006</i> ).
ACH EES study	EES Technical Report O: <i>Aboriginal cultural heritage impact assessment</i> (AECOM, 2022)
AERMOD	A steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts
A-frequency weighting	Frequency weighting representing the human response to sound and its vibration with frequency, in the typical range of magnitude for environmental noise levels, as specified in Australian Standard AS/NZS IEC 61672.1:2019 Electroacoustics – Sound Level Meters, Part 1: Specifications.
AQ EES study	Technical Report H: Air quality impact assessment (AECOM, 2022)
Assessment period	The period in a day over which assessments are made.
Background noise level	The arithmetic average of the hourly LA90 levels that represents the background sounds in a noise sensitive area, in the absence of noise from any commercial, industrial or trade premises which appears to be intrusive.
Bathymetry	Bathymetry is the study of underwater depth of ocean floors, lake floors, or river floors. In other words, bathymetry is the underwater equivalent to hypsometry or topography.
Bubble limit	Bubble limit is the maximum amount that is allowed to be discharged from the whole site.
Closed loop operation	The closed loop operation uses gas-fired boilers and recirculating seawater to generate steam to heat the liquified natural gas.  This mode would only be used in the event that the Geelong Refinery is unable to accept discharge water from the FSRU (e.g., during maintenance of the seawater transfer pipe).
dB(A)	dB(A) means a noise level determined in accordance with A-frequency weighting
East Asian-Australasian Flyway	The East Asian–Australasian Flyway is one of the world’s great flyways of migratory birds. At its northernmost, it stretches eastwards from the Taimyr Peninsula in Russia to Alaska. Its southern end encompasses Australia and New Zealand. Between these extremes, the flyway covers much of eastern Asia, including China, Japan, Korea, South-East Asia and the western Pacific. The EAAF is home to over 50 million migratory water birds from over 250 different populations, including 32 globally threatened species and 19 near threatened species.
EES noise study	Technical Report I: Noise and vibration impact assessment (AECOM, 2022)

Term	Definition
Entrainment	Entrainment is the entrapment of one substance by another. Operation of the FSRU would result in some entrainment of plankton, larvae and other small organisms as a result of seawater being drawn into the FSRU, which has the potential to result in adverse effects on populations and productivity.
Gridded receptors	<p>Gridded receptors refer to receptor points that are systematically distributed within a grid, where AERMOD calculates or predicts the concentration of air pollutants. A grid system is a spatial framework that divides the study area into points, with each point representing a specific location.</p> <p>The use of a grid allows for a detailed and comprehensive analysis of pollutant concentrations across the entire modelled area.</p>
Human occupation	The time since early human populations inhabited an area.
Hydrodynamic model	<p>Hydrodynamic modelling is the study of fluids, such as seawater, in motion. Near-field and regional hydrodynamic models were developed for the project and used to:</p> <p>Simulate the existing currents, temperatures and salinities in Corio Bay.</p> <p>Predict the fate and transport of fine sediments (clay and silt) that are likely to be mobilised during dredging and dredge spoil disposal.</p> <p>Predict the path and dispersion of the discharge plumes, including cooled or warmed chlorinated discharges from the Geelong Refinery and the FSRU.</p> <p>Simulate the potential transport and dispersion of plankton and larvae from different regions of the Bay and predict the entrainment of plankton in the seawater intakes during operation of the FSRU.</p>
Hydraulic jump	A hydraulic jump is a phenomenon in the science of hydraulics which is frequently observed in open channel flow such as rivers and spillways. When liquid at high velocity discharges into a zone of lower velocity, a rather abrupt rise occurs in the liquid surface.
Industrial receptor	An industrial receptor is a type of land designated for industrial use, where people are likely to work.
Intertidal zone	The intertidal zone or foreshore is the area above water level at low tide and underwater at high tide: in other words, the part of the littoral zone within the tidal range.
$L_{90}$	The level of noise exceeded for 90% of the time, expressed in units of dB(A).
Lag deposit	Wind, river and tidal processes can remove finer portions of a sedimentary deposit, leaving the coarser material behind in a lag deposit.
$L_{eq}$	The equivalent continuous sound pressure level. It is the value of the sound pressure level of a continuous steady sound that has the same acoustic energy as a given time-varying sound pressure level when determined over the same measurement time interval, expressed in units of dB(A).
Littoral zone	The littoral zone, also called litoral or nearshore, is the part of a sea, lake, or river that is close to the shore. In coastal ecology, the littoral zone includes the intertidal zone extending from the high water mark, to coastal areas that are permanently submerged — known as the foreshore — and the terms are often used interchangeably.
Lunette / Point Henry Spit	Corio Bay's eastern margin is characterised by a distinctive crescent shaped sand bar known as the Point Henry Spit. This feature is also known as a lunette.
Marine EES study	Technical Report A: <i>Marine ecology and water quality impact assessment</i> , hereafter referred to as the marine EES study (CEE, 2022)
Noise enhancing weather conditions	Atmospheric conditions (i.e. wind and temperature inversions) that increase noise at sensitive areas (weather conditions favourable to sound propagation).
Noise limit	The maximum effective noise level allowed in a noise sensitive area. The noise limit is calculated in accordance with EPA Publication 1826.4 <i>Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues</i> .

Term	Definition
Open loop operation	The open loop operation uses a continuous supply of seawater as a heat source to heat the liquified natural gas. This is the preferred mode of operation.
Piston corer (used to obtain piston cores)	A long, heavy tube plunged into the seafloor to extract samples of sediment. As the tube enters the sediment an internal piston creates a vacuum and helps to draw the core into the tube.
Plumes	In hydrodynamics, a plume or a column is a vertical body of one fluid moving through another.
Radiocarbon dating	A scientific method that can accurately determine the age of organic materials using the decay of the carbon-14 isotope.
Ramsar site	A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention, also known as "The Convention on Wetlands", an international environmental treaty signed on 2 February 1971 in Ramsar, Iran, under the auspices of UNESCO.
Sensitive receptor	A sensitive receptor is a land use where it is plausible for people to be exposed over extended durations. Examples of sensitive land uses include, but are not limited to: <ul style="list-style-type: none"> <li>• residential premises</li> <li>• educational and childcare facilities</li> <li>• nursing homes</li> <li>• retirement villages</li> <li>• hospitals</li> <li>• ecological significance (e.g., national parks or other areas of ecological significance).</li> </ul>
Shell samples	Shells collected from the sediment cores for radiocarbon dating.
Stack specific limit	Stack specific limit is the maximum amount of air emissions that are allowed to be discharged from each discharge point.
Submerged landscape	Once dry land that has been inundated as a result of sea-level rise.
Subtidal zone	The subtidal zone is the region of the ocean that is always underwater, even during low tide <sup>1</sup>
Wake effect	Wake effect is the effect on plume dispersion caused by the presence of buildings near a stack, usually resulting in increased ground-level concentrations of pollutants.