

B ABBREVIATIONS AND GLOSSARY

Abbreviations

Prefixes

G	giga (1,000,000,000)
M	mega (1,000,000)
k	kilo (1,000)
m	milli (0.001)
μ	micro (0.000,001)

Units

\$m	million dollars
%	per cent
μg	microgram
a	year (annum)
CO ₂ -e	carbon dioxide equivalent
d	day
dBA	decibels adjusted
g	gram
GW	gigawatt
h	hour
ha	hectare
kg	kilogram
km	kilometre
km ²	square kilometre
kW	kilowatt
L	litre
m	metre
m ²	square metre
m ³	cubic metre
mg	milligram

ML/a	megalitres per annum
mm	millimetre
mm/s	millimetres per second
MPa	megapascal
mW	megawatt
Pa	pascal
PM ₁₀	particulate matter (10 microns)
ppm	parts per million
RL	relative level
SPL	sound pressure level
t	tonne
W	watts

General

>	greater than
<	less than
'The Code'	Regional Vegetation Management Code for the South East Queensland Bioregion 2006
'The Koala Plan'	Nature conservation (Koala) Conservation Plan 2006 and Management Program 2006–2016
AASS	actual acid sulfate soil
ACH Act	<i>Aboriginal Cultural Heritage Act 1992</i>
AHD	Australian Height Datum
ALA	<i>Acquisition of Land Act 1967</i>
AMTD	adopted middle thread distance
APIA	Australian Pipeline Industry Association
APT	Australian Pipeline Trust
ARI	average recurrence interval
AS	Australian Standard
ASS	acid sulfate soil
CEMP	construction environmental management plan
CG	Coordinator-General
CHCU	Cultural Heritage Coordination Unit

CHMP	cultural heritage management plan
CIE	critical infrastructure easement
CLR	Contaminated Land Register
CMD	coastal management district
CO	carbon monoxide
CO ₂	carbon dioxide
COAG	Council of Australian Governments
Coastal Act	<i>Coastal Protection and Management Act 1995</i>
CSIRO	Commonwealth Scientific and Research Organization
Cwlth	Commonwealth
DCC	Department of Climate Change (NSW)
DEH	Department of Heritage
DEO	desired environmental outcome
DEWHA	Department of Water, Heritage and the Arts (formerly the Department of the Environment and Water Resources)
DHLGP	Department of Housing, Local Government and Planning
DICL	ductile iron cement-lined
DIP	Department of Infrastructure and Planning
DMR	Department of Main Roads
DNRW	Department of Natural Resources and Water
DPI	Department of Primary Industries
DPI&F	Department of Primary Industries and Fisheries
EFO	environmental flow objective
EHMP	ecosystem health monitoring program
EIS	environmental impact statement
EMP	environmental management plan
EMR	Environmental Management Register
EP Act	<i>Environmental Protection Act 1994</i>
EPA	Environmental Protection Agency
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Eastern Pipeline Interconnector
EPP (Water)	<i>Environmental Protection (Water) Policy 1997</i>

EPP (Air)	<i>Environmental Protection (Air) Policy 1997</i>
EPP (Noise)	<i>Environmental Protection (Noise) Policy 1997</i>
EPP (Waste)	<i>Environmental Protection (Waste Management) Policy 2000</i>
ERA	environmentally relevant activity
ESCP	erosion and sediment control plan
ESD	ecologically sustainable development
EVR	endangered, vulnerable or rare
FTE	full-time equivalent
GHG	greenhouse gas
GQAL	good quality agricultural land
GRP	gross regional product
HERBRECS	Queensland Herbarium database
IAS	Impact Assessment Statement
IDAS	integrated development assessment scheme
IPA	<i>Integrated Planning Act 1997</i>
IRP	incident response plan
L _{A90}	average minimum background sound level
L _{Aeq}	typical average noise level
LGA	Local Government Area
LP Act	<i>Land Protection (Land and Stock Route Management) Act 2002</i>
LRA	land resource area
MNES	matters of national environmental significance
MSCL	mild steel cement-lined
MSDS	materials safety data sheets
NCA	<i>Nature Conservation Act 1992</i>
NGAF	National Greenhouse Accounts Factors
NGS	National Greenhouse Strategy
NIR	notice of intention to resume
NNA	Northern Network Alliance
NO _x	nitrogen oxides
NPI	Northern Pipeline Interconnector
NRW	Natural Resources and Water (Queensland Department of)

NRWP	Northern Regional Water Pipeline
NSESD	National Strategy for Ecologically Sustainable Development
NT Act	<i>Native Title Act 1993</i>
NWI	National Water Initiative
OUM	Office of Urban Management
PASS	potential acid sulfate soil
PEMP	planning environmental management plan
QFC	Queensland Fauna Consultancy Pty Ltd
QFRS	Queensland Fire and Rescue Services
Qld	Queensland
QWC	Queensland Water Commission
RE	regional ecosystem
REDD	Regional Ecosystems Description Database
RL	reduced level
RNE	Register of the National Estate
ROW	right of way
SAP	sensitive area plan
SCADA	supervisory control and data acquisition system
SDPWOA	<i>State Development and Public Works Organisation Act 1971</i>
SEQ	south-east Queensland
S _{POS}	total actual acidity (maximum potential oxidisable sulphur level)
SPP	State Planning Policy
S _{RAS}	retained acidity
SRWP Co	Southern Regional Water Pipeline Company
TAFE	Technical and Further Education
TMP	traffic management plan
TOR	terms of reference
TSP	total suspended particulates
VMA	<i>Vegetation Management Act 1999</i>
WMS	work method statement
WRP	water resource plan
WTP	water treatment plant

Glossary

Acid sulfate soils	Soil, sediment or rock that contains elevated levels of metal sulfides, which can generate sulfuric acid when exposed to oxygen.
Alluvium	An unconsolidated accumulation of stream or river deposited sediments including sand, silts, clays or gravels of comparatively recent origin.
Amphibian	Cold-blooded, smooth-skinned vertebrates, including frogs, toads, salamanders and newts. Some live on land and some in the water, but most species return to the water to mate and lay eggs.
Anaerobic	Literally means without air (or oxygen).
Apiary	A place where beehives of honey bees are kept (Beekeepers are known as apiarists).
Aquifer	An underground layer of permeable rock or unconsolidated material (gravel, sand, silt, or clay) that allows the storage and transmission of significant volumes of water.
Arboreal	Living in a tree(s). Contrasted with terrestrial, living on the ground.
Archaeology	The study of past human cultures by analysing the material remains (sites and artifacts) that people left behind.
Background sound level	Describes the sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source. Background sound level measurements are usually denoted dBA, or decibels on the A-weighting scale.
Balance tank	A large water tank provided for temporary storage of water to regulate flows in the water supply system.
Baseline monitoring	The establishment of a system of continuous/periodic measurements and recording of existing and changing conditions at a site, or across a number of sites.
Batters	A slope, as of the outer face of a wall, that recedes from bottom to top which is typically constructed at river banks or excavated areas to avoid erosion or collapse.
Bentonite	A colloidal clay, composed of the mineral montmorillonite, which swells when wet. May be used in drill operations as a type of drill mud (or drilling fluid) to lubricate and cool the drill bit and to maintain required pressure and stability of the bore hole.
Bilateral agreement	An agreement between the Commonwealth and a State or self-governing Territory which reduces duplication in environmental assessment and approval by enabling the Commonwealth to rely on State or Territory assessment processes and in limited circumstances, State or Territory approvals.

Biological diversity	The variety of all life forms; the different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they form a part.
Bioregion	A natural region defined by its ecological coherence. Each bioregion has distinct geological formations, climatic conditions and ecology.
Biota	The total flora and fauna of a region.
Blasting	The use of explosives to break up or otherwise aid in the extraction or removal of a rock or other consolidated natural formation.
Boring	The act of drilling.
Buffer zone	The 500m zone either side of the proposed corridor which includes residents who may be indirectly impacted by construction activities associated with the NPI Stage 2 project.
Bulk water sources	Facilities designed to store large volumes of water for urban/rural water supply, such as dams, weirs and reservoirs.
Bund	A low embankment constructed around an area to prevent the inflow or outflow of liquids and reduce the risk of environmental contamination. Also called bunding.
Carbon dioxide equivalent	A measure for describing the amount of global warming potential for a given type and amount of greenhouse gas, in comparison to the functionally equivalent volume of carbon dioxide.
Catchment	The land area drained by a river and its tributaries.
Cathodic protection	A method employed to minimise the rate of corrosion of structures such as pipelines and storage tanks. The method involves a more active metal being placed next to a less active metal, creating an anode which is then corroded in place of the less active metal.
Centrifugal pump	A pump that moves water by centrifugal force developed by rapid rotation of an impeller. Used to move liquids through a piping system.
Chemical dosing facility	A structure designed to house a system to maintain chlorine levels in potable water supplies to a level which is safe for consumption.
Chlorine	A chemical used in water purification and disinfection.
Clear and grade	Activities associated with the preparation of a safe construction right of way for vehicle movement, trenching and other construction activities. This process typically involves the clearing of vegetation and other obstacles, grading of topsoil to the edge of the right of way and creating a safe working surface.
Colluvium	Any loose, mixed and incoherent mass of soil material and/or rock fragments deposited by rainwash, sheetwash, or slow continuous downslope creep, usually collecting at the base of gentle slopes or hillsides.

Community consultation	Part of the EIS process which involves providing adequate opportunities for community involvement in decision-making processes; providing opportunities for participation by all relevant stakeholders to identify their interests at the earliest opportunity and at key stages throughout the process; providing sufficient information on potential impacts in a way which is understandable to the general community and allow informed comment. Consultation can take a range of forms, both informal and formal (phone calls, surveys, focus groups etc) to suit the issue and the stakeholder.
Construction footprint	The total area of impact on a specific feature for a given activity. For example, a vegetation clearing footprint may be calculated for the construction of the pipeline as a total area of vegetation to be cleared for the corridor and associated facilities.
Contaminated Land	Land contaminated by hazardous substance(s) which may pose a risk to human health or the environment.
Controlled action	Any activity likely to result in a significant negative impact on a matter of national environmental significance as defined under the EPBC Act, actions taken by the Commonwealth and actions affecting Commonwealth land.
Critical base flows	Flow volumes and/or water levels required to sustain flow-dependent habitat features and requirements.
Critical infrastructure easement	An easement registered under s. 153B of the SDPWOA. Applies to land that is the subject of a critical infrastructure project and is already a public utility easement.
Cultural heritage	Possessing historical, archaeological, architectural, technological, aesthetic, scientific, spiritual, social, traditional or other special cultural significance, associated with human activity.
Cumulative impact	Combined effect of more than one development within a single locality.
Dechlorination	The process of removing residual chlorine from disinfected wastewater prior to discharge into the environment.
Deep ripping	The physical disturbance of the soil below the normal cultivation layer to break up soil compaction layers.
Demography	The systematic analysis of populations.
Dewatering	Use of a system of pumps, pipes and temporary holding dams to drain or divert waterways or wetlands before excavation of soils and sediments can occur.
Differential GPS	The process of using two GPS receivers to obtain highly accurate and precise position locations.
Dry sclerophyll forest	Forests with an upper canopy height of between 10 m and 30 m, with an understorey of hard-leaved vegetation.

Duty of care	A legal obligation imposed on an individual requiring that they adhere to a reasonable standard of care while performing any acts that could foreseeably harm others (or the environment in the case of environmental duty of care).
Ecological community	A well-defined assemblage of plants and/or animals, clearly distinguishable from other such assemblages.
Ecological function	Basic physical and chemical processes conducted within a natural system (eg nutrient and biomass cycling), defining roles and interactions within communities.
Ecologically sustainable	Describes activities that meet present needs without compromising the ability to meet future needs, because of damage to the environment (and ecological processes, on which life depends).
Ecology	The study of the interrelationships between organisms and their environment and each other.
Edge effects	The often negative ecological impacts that occur at the boundaries of ecosystems, particularly where habitats are fragmented or located adjacent to disturbed land uses. These impacts may include changes in species composition, gradients of moisture, sunlight, soil and air temperature and wind speed, amongst other factors.
Emergency drought contingency project	Initiatives developed by State Government and local councils under the Regional Drought Strategy to secure existing and future water supplies in south east Queensland.
'Endangered' RE	A listing under the <i>Vegetation Management Act 1999</i> (VMA) where a regional ecosystem type occupies less than 10% of its pre-clearing extent, or where 10-30% of the pre-clearing extent remains but is less than 10,000 ha.
Environment	The term is used in its broadest sense to include physical, biological, cultural and social aspects.
Environmental flow objective	A set of parameters related to flow durations, volumes and/or frequency of no flow events, which are set to meet requirements for the maintenance or protection of a particular species, habitat feature or biological process.
Environmental flows	A term used to describe the amount of water needed in a watercourse to maintain healthy, natural ecosystems.
Environmental harm	Any harm, or potential harm, to the environment of any degree or duration as defined by the <i>Environmental Protection Act 1994</i> .
Environmental impact statement	A report documenting the outcomes of investigations into the potential environmental impacts of a project or activity which is typically required as part of state or federal approvals processes.

Environmental Management Register	A register of land that has been, or is being used for a notifiable activity under the <i>Environmental Protection Act 1994</i> , and about which the EPA has been notified.
Ephemeral	Short lived. An ephemeral stream lies above the water table and only flows when the rate of water which enters the stream from rainfall exceeds the rate at which water infiltrates the ground below.
Erosion	The process by which material such as soil or rock is worn away or removed by wind or water.
Estuarine	Of, relating to or found in an estuary. An estuary is an inlet or arm of the sea, especially the wide mouth of a river, where the tide meets the current.
Fauna spotter/catcher	A person qualified to identify, inspect and clear (if necessary) any potential habitat features (e.g. tree hollows) for wildlife prior to, and during, construction activities such as vegetation clearing.
Floodplain	Relatively flat surfaces adjacent to active stream or river channels, formed by deposition of sediments during major floods.
Flow-related/flow-dependent habitat features	Physical in-stream habitat features as well as species-specific conditions which are required to maintain ecological processes. For example, high flows are required during breeding periods to stimulate the movement of fish into other habitat areas. The maintenance of pools, riffles and woody debris also relies on flow levels.
Forage	Vegetation such as leaves, stems, buds, flowers and some types of bark that are a food resource for some animals.
Forestry sequestration	Also known as 'carbon sequestration'. Forestry sequestration is an action to reduce the amount of carbon dioxide in the atmosphere and help reduce the greenhouse effect. It involves planting trees to assimilate (sequester) carbon dioxide (CO ₂) from the atmosphere as they grow, through the process of photosynthesis. While a forest is actively growing and sequestering carbon, the system is termed a carbon sink.
Formed camber	A low ridge of dirt left over a trench line after construction to accommodate any future subsidence.
Fragmentation	The breaking of an entity into smaller parts, referring in particular to an area of habitat being separated such that the resulting smaller areas are not capable of supporting flora and fauna populations to their original level.
Freehold land	Land over which the Crown has granted an interest which carries the exclusive right to the use and enjoyment of the land for an indefinite period of time.

Frugivore	An animal that feeds primarily or less commonly exclusively on fruit (for example the Grey-headed flying fox).
Gauging station	A facility used to monitor the parameters of a waterway, such as water quality, water level and flow velocity.
Gene flow	The incorporation of genetic information and heritable traits from one population to another.
Generalist	A species that uses a wide range of resources, such as food and/or shelter, as opposed to a specialist.
Genetic diversity	The variation among and within species which can be attributed to differences in the genetic traits. This heritable variation is created, enhanced or maintained by evolutionary or selective forces.
Geology	The science that deals with the earth, the rocks of which it is composed and the changes it has undergone or is undergoing.
Geotechnical	Concerning the engineering properties of geological materials.
Greenhouse gas	(emissions) Refers to the human related emissions of greenhouse gases, the most common being carbon dioxide, methane, nitrous oxide, halocarbons, perfluorocarbons and sulphur hexafluoride. These are emitted directly or indirectly.
Ground-truthing	Ground-truthing is the act of physically going to the field to determine the cause of variability detected in remotely sensed images. In remote sensing, this is especially important in order to relate image data to real features and materials on the ground. The collection of ground-truth data enables calibration of remote-sensing data, and aids in the interpretation and analysis of what is being sensed.
Groundwater	The water beneath the surface of the ground, consisting largely of surface water that has seeped down.
Habitat	The locality or environment in which a plant or animal lives.
Haulage	The horizontal transport of supplies and waste.
Hazardous substance	Any material that poses a threat to human health and/or the environment, for example arsenic, DDT, or oil.
Head	The water pressure in the pipeline at a particular location.
High flow spell analysis	The analysis of the predicted frequency and duration of flow spells above a certain threshold for a proposed scenario compared to existing/natural flow conditions.
Holocene	A geological period of time from present to about 10 000 years ago, which is part of Quaternary period.
Horticulture	The science, skill or occupation of cultivating plants, especially flowers, fruit and vegetables, in gardens or greenhouses.

Hydraulic	Of or relating to water or other liquid in motion; operated, moved or effected by water or liquid.
Hydraulic habitat requirements	Of an ecological asset (species, community or biological function), are the hydraulic or physical attributes of the flow regime that are either required for a particular biological process or response, or necessary to maintain the long-term biological integrity of the asset.
Hydrocarbon	An organic compound consisting entirely of hydrogen and carbon. The majority of hydrocarbons found naturally occur in crude oil, from decomposed organic matter.
Hydrology	The study of the movement, distribution, and quality of water throughout the Earth.
Hydrostatic test	The process of using water under pressure to test the integrity of pipelines and vessels.
Igneous	(rocks) are formed either underground when magma (melted rock) becomes trapped in small pockets and cools slowly; or above ground when volcanoes erupt, causing magma to rise above the earth's surface and cool above ground.
Impact assessable	A proposals which requires some level of environmental impact assessment for example an environmentally relevant activity listed in Schedule 1 of the EP Act; development in a coastal zone; any activity that would require authorization under the Nature Conservation (Administration) Regulation 2006; proposals that the Coordinator-General has declared to be 'significant projects' for which an EIS is required.
Insect growth regulator	A chemical that controls insects by disrupting the production of hormones that control moulting, development from pupa to adult, and other processes.
Insecticide	Any substance, either organic, inorganic, botanical or microbial that is used to kill insects.
Invertebrate	An animal without a backbone, such as insects, worms and snails.
Koala Plan areas	The most important area of koala habitat with the highest koala population densities as described in the Koala Plan (Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (the Koala Plan), which divides the state into districts based on the level of threat to koalas.
Land tenure	The name given, particularly in common law systems, to the legal regime in which land is owned by an individual. The sovereign monarch, known as The Crown, held land its own right. All private owners are either its tenants or subtenants. The term 'tenure' is used to signify the relationship between tenant and lord, not the relationship between tenant and land.

Land use precinct/zone	Criteria and regulations defining what type(s) of land uses can occur within a particular locality. For example, rural residential precincts may exclude the use of land for industrial purposes. Often detailed in town planning and development documents and legislation.
Land zone	A simplified substrate-landform classification used in Qld for regional ecosystem mapping (e.g. land zone 3 – Quaternary alluvial systems).
Landform	Any distinctive feature of the earth's surface, such as a floodplain, river or ridge.
Landslip	A geological phenomenon which includes a wide range of ground movement, such as rock falls, deep failure on slopes and shallow debris flow. The primary driving force for a landslide is gravity; however, there are a range of other contributing factors that affect the original slope stability such as groundwater pressure, vegetative cover, earthworks, soil depth and underlying parent material.
Laydown areas	Sites where construction equipment and materials are stored, located near the work front but out of the right of way to maintain a safe and easily accessible corridor.
Leasehold tenure	Crown land which the Crown has rented to an individual or other legal entity.
LinkWater	(The proponent) Southern Regional Water Pipeline Company, trading as LinkWater as of 1 October 2007, is a government-owned and incorporated company established to improve the regional water supply distribution network in south east Queensland (SEQ).
Listed species	A plant or animal included in a schedule of vulnerable, rare or endangered biota, such as the schedules in the EPBC Act.
Littoral rainforest	Littoral refers to the coast of an ocean or sea, or to the banks of a river, lake or estuary. Littoral rainforest therefore refers to the vegetation growing within a littoral zone (eg vegetation communities along the banks of rivers or lakes).
Loam	A soil composed of sand, silt, and clay in relatively even concentration (about 40-40-20% concentration respectively). Different names are given to soils with slightly different proportions of sand, silt and clay, eg sandy loam or sandy clay loam. Loam soils generally contain more nutrients and humus (organic material) than sandy soils, have better infiltration and drainage than silty soils and are easier to till than clayey soils.
Low flow duration (10 cm above cease-to-flow)	For a watercourse, means the percentage of the total number of days in the simulation period that the watercourse's daily flow is at least 10 cm above the cease-to-flow level in the watercourse.
Low flow duration (30 cm above cease-to-flow)	For a watercourse, means the percentage of the total number of days in the simulation period that the watercourse's daily flow is at least 30 cm above the cease-to-flow level in the watercourse.

Macrophyte	Plants of aquatic environments that are visible to the naked eye, usually referring to rooted, seed-producing plants.
Melaleuca wetland	An area of permanent or periodic inundation with water that is static, flowing, fresh, brackish or saline, with a high proportion of Melaleuca (paperbark trees) trees present.
Meteorology	The scientific study of the physics, chemistry, and dynamics of the Earth's atmosphere, especially weather and climate.
Microbial	Of or related to microorganisms, small organisms that are too small to be seen by the naked human eye such as viruses, bacteria, yeasts, protozoa and small algae.
Microtunnel	A method of trenchless construction that involves the pushing of a pipe between two pits, wherein a drill is located at the front of the pipe for excavating soil and rock.
Mitigation measures	A measure to eliminate or reduce the frequency, magnitude or severity of a risk (e.g. environmental, economic, or social), or a measure to minimize the potential impact of a threat.
Morphology	Refers to the forms of natural water bodies such as rivers, lakes, estuaries, lagoons, coastal zones and seas, as well as the processes that create and modify these forms.
Native title	The rights and interests of Aboriginal and Torres Strait Islander people in land and waters according to their traditional laws and customs that are recognised under Australian law.
Nectarivore	An animal which eats the sugar-rich nectar produced by flowering plants. Most nectarivores are insects or birds, but there are also nectarivorous mammals, notably several species of bats.
Notifiable activities	Activities that have been identified as likely to cause land contamination are listed in Schedule 2 of the <i>Environmental Protection Act 1994</i> . Under the Act, landowners and local government must inform the Environmental Protection Agency (EPA) that land has been or is being used for a notifiable activity. Land that has been or is being used for a notifiable activity is recorded on the Environmental Management Register, which is maintained by the EPA. A few examples of 'notifiable activities' are chemical storage, landfill, herbicide or pesticide manufacture.
NPI Stage 1	The first stage of a drought contingency project that will provide the capability to transfer 65 megalitres of water per day from the Sunshine Coast to areas of need in South East Queensland. Stage 1 of the pipeline will transfer unused water from existing allocations, under the interim Resource Operations Licence for the Baroon Pocket Water Supply Scheme, from the Landers Shute water treatment facility near Eudlo on the Sunshine Coast. The pipeline will transfer water to the Morayfield water reservoirs, where it will link with the existing Caboolture and Brisbane water supply network.

NPI Stage 2	The second stage of the drought contingency project (see Stage 1 definition above) described above which will occur between Landers Shute and the existing Noosa Water Treatment Plant.
'Not of Concern' RE	A listing under the VMA where a regional ecosystem type occupies more than 30% of its pre-clearing extent and more than 10,000 ha.
'Of Concern' RE	A listing under the VMA where a regional ecosystem type occupies 10%–30% of its pre-clearing extent or more than 30% remains but is less than 10,000 ha.
Operational life	The period in which the pipeline can usefully function before it needs to be reconditioned or decommissioned.
Oxidise/oxidation	The loss of electrons by a molecule, atom or ion. For example, when iron oxidises when exposed to oxygen producing iron oxide; this process is commonly known as rusting.
Parent material	The underlying geological material in which soil horizons form.
Particulate matter	Fine particles of a solid or liquid suspended in a gas. Some particulates occur naturally, originating from volcanoes, bushfires and dust storms, and some human activities contribute significant amounts of particulate matter, such as the burning of fossil fuels.
Pastoral lease	Pastoral leases are agreements under the Commonwealth of Australia that allow for the use of Crown land for agriculture, horticulture and other farming practices.
Pathogens	Biological agents that cause disease or illness to its host.
pH	A scale used to describe the degree of acidity or alkalinity of a substance, with low pH substances being described as acidic and high pH substances as alkaline.
Photosynthesis	Process in which the pigments of a plant, algae or bacterium absorb light and provide energy for the synthesis of sugars used for growth.
Physico-chemical properties	Of water, the physical and chemical properties of water such as dissolved oxygen content, pH and temperature.
Piezometer	A small diameter water well used to measure the hydraulic head of groundwater in aquifers.
Pigging	The clearing out of pipelines between processes using a special contoured plug or 'pig'.
Piling	A construction method used at river and creek crossings, involving the driving of concrete piles in the riparian zone and/or the waterway itself to support the pipeline.
Pioneer plant species	The first species in the successional sequence of communities to be established following a disturbance.

Podzolic soils	Soils typical of eucalypt forests and heathland. Often poor soils for agriculture as they can be sandy, excessively drained, or have shallow rooting zones.
Potable water	Water suitable for human consumption.
Potential acid sulphate soil	Soils containing iron sulfides (pyrite) which have the potential to produce sulfuric acid if they are drained or excavated, exposing the pyrite to oxygen.
Preferential harvesting arrangement	Water harvesting options for the take of water from the Mary River and Lake Macdonald for the NPI Stage 2 project. Proposed extraction volumes, pre-conditions for extraction and supply sources are outlined in Table 2.2 in Section 2.2.1 of this EIS.
Prescribed projects	A project of significance, particularly economically and socially, to the State or a region. Declared under section 76E of the SDPWOA to be a prescribed project. The Minister may declare a number of different projects to be a prescribed project. For example a project declared under section 26 to be a significant project.
Propagation	The process of increasing the number of individual plants, either by seeds or by means of cuttings, division or grafting.
Proponent	The person or organisation putting forward a proposition or a proposal.
Protected areas	As described in the <i>Nature Conservation Act 1992</i> , which aims to conserve nature, protected areas are areas representative of the biological diversity, natural features and wilderness of Queensland. There are 11 classes of protected areas ranging from national parks (scientific), World Heritage management and international agreement areas to national parks (Aboriginal land) and nature refuges and co-ordinated conservation areas involving private property.
Protected plants	A species of plant specified as endangered, vulnerable, rare or common wildlife under the <i>Nature Conservation (Wildlife) Regulation 1994</i> .
Public utility easement	An easement for public utilities which may include electric, water, sewer, irrigation, etc.
Pump station	A facility for pumping water to assist its movement through the pipeline.
Quaternary	The geologic time period from the end of the Pliocene Epoch approximately 1.8 million years ago to
RE Mapping	A mapping tool developed by the Queensland Herbarium for mapping regional ecosystems across Queensland, based on herbarium records and ecosystems as defined by Sattler and Williams (1999).

Reduced level (RL)	Refers to the height of a point above the Datum Surface. Datum Surface is the common surface which all height differences between points are related back to, eg Australian Height Datum (AHD), which uses Mean Sea Level (MSL) determined from a number of tide gauges around the country.
Refugial pools	Pools within waterways that provide refuge for species during unfavourable (e.g. dry periods) conditions.
Regional ecosystems	A vegetation community consistently associated with a particular geology, landform and soil, used by the Queensland Government as the basis for nature conservation planning.
Rehabilitation	Activities undertaken to return disturbed land to a predetermined beneficial land use/productivity.
Remnant vegetation	Wholly and predominantly intact native vegetation, excluding young regrowth.
Renewable sources	Natural resources that are replenished by natural processes at a rate comparable to or faster than its rate of consumption by humans or other users. Resources such as solar radiation and wind are perpetual resources that are in not danger of being used in excess of their long-term availability.
Rhyolite	An igneous, volcanic rock which is silicon-rich.
Riffle	A shallow stretch of river/stream with above-average stream velocity, often consisting of a rocky bed of gravels or other small stones.
Riparian	Frequenting, growing on or living on the banks of streams or rivers (eg riparian vegetation).
Road reserve	The land between the road kerb and the front property line of private property. May contain verges, footpaths and landscape strips.
Runs	The run zone of a stream or river is the slow-moving, relatively shallow part of the stream with moderately low velocities and little or no surface turbulence.
s.136	A section in the SDPWOA which describes the process of entering land for temporary activities.
Sand ingress	The infiltration of sand into pipes, pumps, water treatment facilities and other infrastructure.
Scar trees	Trees that have evidence of purposeful removal of bark.
Scouring	The erosion of soil caused by flowing water.
Sediment	Solid material settled from suspensions in a liquid.

Seed bank	A repository of preserved seeds, often found in upper soil layers. Provides important information on vegetation community composition and structure.
Seismology	The scientific study of earthquakes and the propagation of elastic waves through the Earth. Seismic activity is created as pressure and/or surface waves travel through the solid material of the Earth's surface following an earthquake
Sensitive environmental receptor	Residences, businesses, schools, places of worship and other public facilities that are determined to be sensitive to increases in construction related impacts such as noise, vibration and air quality. Environmental controls for construction are designed to minimise the potential impacts to these receptors.
Significant impact guidelines	The significant impact guidelines provide overarching guidance on determining whether an action is likely to have a significant impact on a matter of national environmental significance protected by the EPBC Act. These guidelines replace the EPBC Act administrative guidelines on significance (July 2000).
Significant project	A development project declared by Queensland's Coordinator-General as a Significant Project under the SDPWOA.
Snag	Whole trees, limbs and root masses that are partly or wholly submerged. They function as important in-stream habitat features for a range of species in many aquatic environments.
Specialist	A species with a very narrow range of habitat or food requirements, as opposed to a generalist.
Species	A taxonomic grouping of organisms which are able to interbreed with each other but not with members of other species.
Spoil	Surplus soil and rock material after backfilling pipeline trenches.
Stakeholder	Persons, parties or organisations with specific interests in the Project.
Stockpile	A pile or storage location for bulk materials, such as sub-soil layers.
Stream order	A simple classification system used to define stream size based on a hierarchy of its tributaries. For example, where two first-order streams come together they form a second-order stream.
Submersible pump	A pump which has a hermetically sealed motor close-coupled to the pump body. The whole assembly is submerged in a fluid to be pumped. The advantage of a submersible pump is that it can provide a significant lifting force as it does not rely on external air pressure to lift the fluid.

Sub-optimal habitat	Habitat which does not contain the full suite of required physical and chemical conditions for a species' survival and reproduction; or habitat which may contain low-quality habitat features.
Sustainability	A characteristic of a process or state that can be maintained at a certain level indefinitely. In its environmental usage, sustainability refers to the potential longevity of vital human ecological support systems, such as climatic cycles, agriculture, industry, fisheries and forestry, and human communities in general and the various systems on which they depend (i.e. nutrient cycles, hydrological cycles).
Tannin-stained water	Generally found in low gradient, small to medium-sized streams, predominantly with sandy substrates and low pH, tea-coloured water draining through Wallum or heath vegetation.
Terms of reference	A document prepared by the Office of the Coordinator-General outlining those issues to be addressed by the EIS.
Terrestrial	Living or found on land, as opposed to in rivers, lakes, oceans or in the atmosphere.
Thrust boring	A method of trenchless construction suitable for soils and soft rock, that involves pushing a pipe between two pits.
Topography	The study of Earth's surface features; the physiogeographic characteristics of land in terms of elevation, slope, and orientation.
Topsoil	The surface or upper part of the soil, often containing seed or other reproductive parts of plants. Generally the most biologically rich soil horizon.
Traditional owners	Of an area, are the Aboriginal people who identify as descendants of the original inhabitants of the area.
Trenching	Installation of a pipe by excavating a trench, followed by pipe placement and backfilling with soil and rock material.
Triassic	A geologic time period that extends from about 251 to 199 million years ago. Both the start and the end of the Triassic period are marked by major extinction events.
Tunnel bore machine	Excavate tunnels with a circular cross section through a variety of rock strata. Tunnel bore machines offer the advantage of not disturbing surrounding soil and producing a smooth tunnel wall, compare to drilling and blasting.
Turbidity	A measure of the cloudiness of water that is determined by the amount of light scattered by suspended particles.

Vegetation management offsets	As described in the policy for vegetation management offsets vegetation management offsets provide a mechanism for development to proceed while ensuring the long-term conservation of remnant regional ecosystems by maintaining the 'current extent' of certain vegetation or habitat.
Vertebrate	An animal possessing a backbone or spinal column.
Wallum/wallum heath	Heathland that grows in sandy, low nutrient and often acidic soils on the coastal lowlands and offshore islands of south-east Queensland. Typically dominated by <i>Banksia</i> , <i>Hakea</i> , <i>Melaleuca</i> , <i>Callistemon</i> and <i>Leptospermum</i> plant species.
Waste	Any gas, liquid, solid or energy that is surplus to, or unwanted from, any industrial, commercial, domestic or other activity.
Wastewater	Any water that has been adversely affected in quality by human use, e.g. domestic, industrial & agricultural uses.
Water allocations	Refers to the specific volume of water that is allocated to water access entitlements in a given season.
Water carting	The transportation of water by water tanker or water transport vehicle to consumers for a range of activities including potable water, domestic use, industrial/construction use and irrigation of farmland.
Water harvesting	The collection of water from a source (river, dam, ocean etc.) for re-use.
Water quality	The physical, chemical and biological characteristics of water in relationship to a set of standards.
Water resource planning/management	A process designed to plan for the allocation and sustainable management of water to meet future water requirements.
Water table	The upper surface of ground water or that level below which the soil is saturated with water.
Wet sclerophyll	An open or closed forest community where soft-leaved shrubs form the understorey with emergent trees typically of the Eucalypt species.
Wildlife corridors	Areas of vegetation connecting isolated habitat areas, facilitating the movement of animals between these habitat areas for breeding or migration.
Work platform	A platform intended to provide a stable working platform for personnel and equipment/machinery, either side of the waterway or road and the excavation of an open trench.