

10. TERMINOLOGY AND ABBREVIATIONS

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10 TERMINOLOGY AND ABBREVIATIONS

10.1 Words, expressions and terms used in the manual

Term	Definition
Anthropogenic	Generated and maintained, or at least strongly influenced by human activities
Arboreal	Fauna living in or amongst trees
Aven	Vertical tube found in the roof of cave passages
Baffles	Structures placed in culverts that change the water flow pattern in the immediate vicinity, creating a sequence of slow and fast water zones. They allow fish to use burst speed to advance from one resting place to the next, and cruising speed to swim through the resting zones
Barrier effect	The combined effect of traffic mortality, physical barriers and avoidance, which together reduce the likelihood and success of fauna crossing infrastructure
Batter	The uniform side slope of a cutting or an embankment, expressed as a ratio of one unit vertical to 'x' units horizontal
Berm	Horizontal ledge in an earth bank or cutting constructed to ensure the stability of a steep slope
Biodiversity	The richness among living organisms including terrestrial, marine and freshwater ecosystems and the ecological complexes of which they are a part. It includes diversity within and between species and within and between ecosystems as well the processes linking ecosystems and species
Bridge	A structure that maintains the grade of the road or elevates the traffic above the surrounding environment, allowing fauna to pass under the road. Facilitates water drainage or the movement of local human traffic and facilitates the passage of fauna. Vegetation clearing can also be minimised (clearing only required for bridge piers or pylons) and allows natural vegetation to grow under the infrastructure. Also see 'overpass'
Bypass	Highway route that passes around an area
Cage device	A humane trap to capture small to medium mammals, aimed at reducing injury
Canopy bridge	A rope or pole suspended above the traffic, either from vertical poles or from trees. Used by arboreal and scansorial (climbing) fauna
Canopy connectivity	The width of the linear clearing is kept sufficiently small to allow the tree canopy to remain continuous above the clearing, or where discontinuous, sufficiently small to allow gliders (and other volant species) to safely traverse the clearing
Carriageway	The portion of the road formation, including lanes, auxiliary lanes and shoulders set aside for the use of vehicles
Causeway	Structures that raise the base of the stream bed to allow water through a culvert during low flows but are inundated during floods or high flows
Chemical repellents	Chemical that can be used on a temporary basis (for example, during a breach in a fauna exclusion fence) to discourage fauna from approaching the road
Clear zone	The area commencing at the edge of the traffic lane and is available for emergency use by errant vehicles. The distance that the clear zone extends from the carriage edge is dependent on the traffic volume, road geometry and design speed of the road. This area may consist of a shoulder, parking bays, a recoverable slope and a clear run-out area
Community (biotic)	Assemblage of interacting species living in a given location at a given time

Term	Definition
Connectivity	The state of structural landscape features being connected, enabling access between places via a continuous route of passage. The physical connections between landscape elements
Corridor	Tract of land or water connecting two or more areas of habitats that aid fauna movement across the landscape. See also 'Wildlife corridor'
Cross section	A vertical section of the ground surface taken at right angles to a survey line
Crossing	Designated or recognised place for people or fauna to traverse from one side of an infrastructure to the other
Culvert	Square, rectangular or half-circle in shape and may be purpose built for fauna passage or water drainage, or a combination of both. Typically pre-cast concrete cells or arches made of steel
Cut and cover	Construction method where trench is excavated to accommodate the road to pass below ground level through a tunnel with the area above available for revegetation and use by some fauna species
Cutting	Excavation of the land enabling transport infrastructure to be placed below the surrounding ground level
Design speed	Operating speed of individual elements of a road, including straights, horizontal curves and vertical curves, i.e. a nominal speed adopted for the design of the geometric features of the road
Dispersal	The process or result of the spreading of organisms from one place to another
Drainage	A system devised to remove excess water (surface or subsurface) from an infrastructure surface
Dual carriageway	Road with two lanes of traffic moving in opposite directions on either side of a central reservation
Ecological corridor	Landscape features of various size, shape and vegetative cover that maintain, establish or enhance landscape connectivity
Ecosystem	Dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit
Edge (effect)	The portion of an ecosystem near its perimeter, where influences of the surroundings prevent the development of interior environmental conditions
Effect	See 'Impact'
Elliott trap	Collapsible, folding trap used for the capture of small mammals
Embankment	Artificial bank (made of packed earth or gravel) such as a mound or dike, constructed above the natural ground surface in a linear form and designed to carry a roadway or railway across a lower lying area
Endemic species	A species confined to a particular region and thought to have originated there
Exotic species	Plant species of foreign origin or character, introduced from abroad and not native to Australia
Environmental Impact Assessment	A method and a process by which information about the existing environment is collected and the positive and negative impacts of a proposal are assessed and used to inform decision-making to ensure the project avoids or minimises adverse impacts. Also referred to as Environmental Assessment
Fauna	Animal species
Fauna passage	Man-made measure installed to enable animals to cross over or under a road, railway or canal without coming into contact with the traffic

Term	Definition
Fencing	A freestanding structure and/or barrier designed to partition an area and prevent or restrict pedestrian and/or fauna movement across a boundary, particularly in hazardous situations
Flora	Plant or bacterial life
Footpath	This area is located between the face of the kerb and the property boundary for use by pedestrian traffic, possible bicycle traffic and also for the placement of utility services. Footpaths typically share the same longitudinal gradient as the adjoining roadway
Footprint	The physical ground surface area occupied by a building or structure (whether existing or planned).
Fords	Vehicle crossings that are almost level with the river bed. Low flows pass over the structure rather than through a culvert. If concrete or rocks are added and the bed level is raised then the crossing becomes a causeway
Fragmentation	The breaking up of a habitat, ecosystem or land-use unit into smaller parcels
Glider pole	Vertical poles placed in the centre median, on the road verge or overpass, to provide fauna with an intermediate landing and/or multiple launch opportunities
Gradient	The (rate of) change of a parameter between one area or region and another
Guide fencing	Fencing built to lead fauna to a dedicated crossing point.
Gutter	Paved channel designed to carry runoff from the edge of infrastructure into the drainage system
Habitat	The type of site (vegetation, soils, and so on) where an organism or population naturally occurs, including a mosaic of components required for the survival of a species
Habitat fragmentation	Dissection and reduction of the habitat areas available to a given species. Caused directly by habitat loss (for example, land-take) or indirectly by habitat isolation (for example, by barriers preventing movement between neighbouring habitat patches)
Hair tube/funnel	Funnel with double-sided sticky tape and baited, used to identify fauna species by taking samples of their fur/hair
Highway	See 'Road'
Impact	The positive or negative response of an organism, species or community to an external factor. This response may have an effect on the species that results in wider consequences at the population, species or community level
Indicator	Measures of simple environmental variables used to indicate some aspect of the state of the environment (for example, the degree of habitat fragmentation)
Infrastructure	The system of transport services within an area
Invertebrate	Animals lacking a vertebral column, or backbone
Kerb	Edging (usually concrete) built along infrastructure to form part of the gutter
Landscape	The total spatial and visual entity of human living space integrating the geological, biological and human-made environment. A heterogeneous land area composed of a cluster of interacting ecosystems that create a specific, recognisable pattern
Landscaping	Modification of the original landscape by altering the topography and/or plant cover This may include building earthworks to form new landscape structures

Term	Definition
Local road	Roads which lie under the jurisdiction of local authorities. Local roads also include any other associated infrastructure and landscape areas that interface and connect with TMR road corridors
Local traffic management	Devices to reduce the speed or volume of traffic (for example, road closures, chicanes, crosswalks, lighting, signage)
Major road	Road which is assigned permanent traffic priority over other roads
Median	The central strip of road not intended for use by traffic, that separating opposing traffic flows
Metapopulation	A set of local populations within an area, where migration typically occurs between one local population to at least some others in order to sustain local population numbers. The metapopulation may have a higher persistence than the single local populations
Migration	The regular, usually seasonal, movement of all or part of a fauna population to and from a given area
Mitigation	Action to reduce the severity of, or eliminate, an adverse impact
Monitoring	Combination of observation and measurement employed to quantify the performance of a plan, measure or action against a set of predetermined indicators, criteria or policy objectives
Mosaic	The pattern of patches and corridors embedded in a matrix (in this case, within a landscape)
Motorway	Major arterial highway that features: two or more traffic lanes of traffic moving in each direction, separated by a central reserve; controlled entries and exits; and alignment eliminating steep grades, sharp curves, and other hazards (for example, grade crossings) and inconveniences to driving
Mulch	Plant residues and other suitable material applied to the ground to conserve moisture, hold the soil in place, aid in establishing plant cover, increase filtration and minimise temperature fluctuation
Native plants	Plant species both cultivated from indigenous origins, or hybrid varieties (or forms), which are readily available within the nursery industry. These species are selected for their use in meeting particular design criteria. Native species, for the purposes of this manual, must not be invasive or species that are a threat of becoming a future weed
Natural ground cover	The ground surface that exists prior to any construction work being carried out under a contract
Noise barrier	Measure installed to reduce the dispersal of traffic noise in a certain sensitive area (for example, wall, fence, screen)
OnQ	Project management framework initially developed by Queensland Transport's Integrated Transport Planning Division in 2001 and adopted by the Department of Main Roads in 2002. It consists of a set of inter-related phases, activities and tasks that define the project process, from the start through to completion
Overpass (land bridge)	A bridge extending over a road, typically 20 to 70 metres wide. The bridge is covered in soil, planted with vegetation and enhanced with other habitat features (for example, logs, rocks, water-body and so on.). Also known as an eco-duct or wildlife bridge. See also 'Bridge'
Overpass (small roads)	This bridge is above the major road and is narrow (not hour-glass shaped) and allows human access above the road. The road on the overpass is typically a minor road and may be unsealed or single lane. See also 'Bridge'

Term	Definition
Outlet	The point at which water discharges from a stream, river, lake, tidewater artificial dam or drainage structure
Pavement	The structural component that supports traffic on the road
Population	Functional group of individuals that interbreed within a given, often arbitrarily chosen, area
Pipe	Cylindrical watertight structure sunk into the ground to provide a passage (from one side of the infrastructure to another)
Refuge pole	Used to aid fauna dispersal in open areas by providing refuge from predators
Region	A geographical area (usually larger than 100 square kilometres) embracing several landscapes or ecosystems that share some features (for example topography, fauna, vegetation, climate, and so on). Examples include bio-geographic and socio-economic regions
Restoration	The process of returning to an earlier condition or state. Ecological restoration involves a series of measures and activities undertaken to return a degraded ecosystem to its former state.
Riparian	Vegetation naturally associated with a river or creek system
Road	Concrete or tarmac public way for vehicles, humans and fauna
Road corridor	Linear surface used by vehicles plus any associated verges (usually vegetated). Includes the area of land immediately influenced by the road in terms of noise, visual, hydrological and atmospheric impact (normally within 50 to 100 metres of the edge of the infrastructure).
Road Corridor Environmental Assessment	Database used to record spatial environmental data on the road corridor. Data is used to; identify risks to projects, identify environmental issues and identify special maintenance requirements of the road corridor
Road network	The interconnected system of roads serving an area
Road signs	Designed to inform, regulate and advise road users (with considerable advance warning) of directions, distances, destinations, routes, hazards, service locations, points of interest and other required traffic information
Road System Management Framework	Provides a consistent statewide understanding of how TMR conducts business. It provides a high level view of TMR's end-to-end processes in meeting government priorities and community outcomes, and provides an environment for decision-making, policy development and support
Rock ramps	Rocks placed within streams to decrease water velocities
Roundabout	Junction where three or more roads join and traffic flows in one direction around a central island of land which is often vegetated
Safety barrier	A vehicle-resistant barrier installed alongside or on the central reserve of infrastructure, intended to prevent errant vehicles from leaving the designated corridor and thus limit consequential damage
Scale	In landscape ecology, the spatial and temporal dimensions of patterns and processes
Scat	Fauna excrement
Scansorial	Capable of or adapted for climbing
Shoulder	The linear paved strip at the side of a motorway or roads which vehicles can use during emergencies and which is used by maintenance vehicles to access works

Term	Definition
Site	A defined place, point or locality in the landscape
Speed limit	The maximum speed at which a motor vehicle is legally permitted to travel on a particular section of road
Stepping stone	Ecologically suitable patch where an organism temporarily stops while moving along a heterogeneous route
Target species	A species that is the subject of a conservation action or the focus of a study
Taxa	A taxonomic category or group, such as phylum, order, family, genus or species
Terrestrial	Pertaining to land or earth
Top soil	The top layer of soil that supports vegetation
Tunnel (fauna)	Typically round pipes of relatively small diameter (for example, less than 1.5 metres in diameter). May also be termed eco-pipe
Underpass	Structure, including its approaches, allowing one route to pass under another route or obstacle
Understorey	All plant species occurring between the ground and the canopy layer. It includes low grasses and ground covers through to large shrubs up to four metres in height
Verge	The strip of land (often vegetated) beyond the infrastructure surface itself, but within the infrastructure corridor
Vertebrate	Any animal characterised by a vertebral column, or backbone
Viaduct	Long elevated bridge, supported on pillars, which carries infrastructure over a valley or other similar low-level landscape area
Volant	Engaged in or having the power of flight
Waterway	A body of water
Weed	A plant which poses a threat to other vegetation and the environment, usually by way of its invasive habitat, to the detriment of native plants or landscape and revegetation treatments
Weir	Construction in a river or canal designed to hold the water upstream at a certain level
Wetland	Land or area containing high levels of soil moisture or completely submerged in water for either part or whole of the year
Wildlife	All wild animals, plants, fungi and bacteria collectively
Wildlife corridor	Linear-shaped area or feature of value to wildlife, particularly for facilitating movement across a landscape
Wildlife crossing	Designated place for fauna to cross infrastructure safely (for example, using a specially-designed overpass, underpass, etc)

10.2 Abbreviations

ARCUE	Australian Research Centre for Urban Ecology
ASS	Acid sulphate soil
BCC	Brisbane City Council
DERM	Department of Environment and Resource Management
DoTARS	Department of Transport and Regional Services
GPS	Global Positioning Satellite
GU	Griffith University
JCU	James Cook University
mm	millimetres
MoU	Memorandum of Understanding
NRMBNT	Natural Resource Management Board (Northern Territory)
NSW	New South Wales
PVA	population viability analysis
PVC	polyvinyl chloride
QDMR	Queensland Department of Main Roads
QPWS	Queensland Parks and Wildlife Services
RCEA	Road Corridor Environmental Assessment
RSM	Road System Manager
RTA	Roads and Traffic Authority (NSW)
TMR	Department of Transport and Main Roads
TREAT	Trees for the Evelyn and Atherton Tablelands
USA	United States of America
UV	ultraviolet
VHF	Very High Frequency