

Part H

References, Glossary and Abbreviations

30 References

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31 Glossary

AAPFD - Amended Annual Proportional Flow Deviation (based on a comparison of actual and natural monthly flows).

Aggradation - A progressive build-up of the channel floor with sediment over time. Distinguished from the rise and fall of the stream bed during a single flood which is called scour and deposition.

AUSRIVAS - An evaluation of stream condition by comparing the observed aquatic macro-invertebrate taxa at a site, to the taxa that were predicted to occur at the site in the absence of environmental stress.

Bank Erosion - Loss of soil from river or gully banks which may result from movement of water in the stream channel, livestock impacts and/or the loss of vegetation.

Barrier (Fish Barrier) - An artificial obstacle in a stream (e.g. a dam wall, weir, culvert or causeway) that affects (halts or delays) fish migration.

Baseflow - The component of streamflow supplied by groundwater discharge.

Bed Erosion - General lowering of a stream bed, usually over a period of years, by erosional processes.

Biodiversity - A word used to describe biological heterogeneity. It covers the number of species of plants and animals present, as well as how different they are from one another.

Bioregions - Areas that capture the patterns of ecological characteristics in the landscape, providing a natural framework for recognizing and responding to biodiversity values.

Cost-Benefit Analysis - Methodology for the economic evaluation of investment projects.

De-snagging - The removal of snags from waterways was common practice in the past, in the belief that this would make the river a more efficient channel for water movement. The practice led to negative impacts upon fish habitat and stream stability.

Ecologically Healthy River - A river which retains the major ecological features and functioning of a river prior to European settlement and which would be able to sustain these characteristics in the future.

Estuary - The zone where a river meets the sea, influenced by river flows and tides and characterised by a gradient from fresh to salt water.

Exotic vegetation - Introduced species of vegetation from other countries or from other regions of Australia (i.e. not indigenous to the region).

Facultative - Optional or contingent on conditions; not restricted to a particular mode of life. Relates to fish biology

Fish Ladder - A structure that facilitates fish passage past a barrier.

Flagship Species - A species that is important to a local community. Flagship species within the Corangamite region include: Black Bream, Platypus, River Blackfish and Broilga.

Heritage River - A Heritage River in Victoria has: one or more values of national or international significance, where those values are strongly associated with a substantial section of the watercourse; or an aggregation of at least four values, generally of State or greater significance, which together create a corridor of Victorian heritage river status.

Hydrology - The science that considers the distribution of water over the land (as opposed to hydraulics that considers the physical effects of the water in its passage).

Index of Stream Condition (ISC) - The ISC is an integrated measure of the environmental condition of our rivers that combines information on hydrology, water quality, physical form, riparian zone and aquatic life that is important from an ecological perspective. A total of 19 parameters are measured. The ISC provides an overall indication of changes in river condition

Indigenous - In general, species that originated in and occur naturally in a particular region or environment.

Landscape Zone - Management zones within the region based on criteria such as waterway catchments, bioregions and existing remnant vegetation.

Large Woody Debris - A dead tree, or portion of a tree, that has fallen into a stream. Usually considered to be greater than 0.1 m in diameter, and over a metre long. Also called snags or LWD.

Longitudinal Continuity - An indicator in the Streamside Zone Sub-index of the ISC. A measure of how continuous streamside vegetation is and the impact of discontinuities in the vegetation.

Macro-invertebrates - An invertebrate (animal without a backbone) that is visible to the naked eye.

Nutrients - Chemicals (usually refers to nitrogen and phosphorus), essential for plant and animal growth.

O/E - Observed versus expected.

Obligatory - Binding, compulsory; must be done. Related to fish biology.

pH - A measure of the concentration of the acidity or alkalinity of the water (hydrogen ions in water).

Physical Form - An ISC sub-index that measures bank stability, bed stability, barriers and large woody debris.

Ramsar - Convention on wetlands signed in Ramsar, Iran in 1971 as an intergovernmental treaty to protect wetlands of international importance.

Reach - A length of stream typically 10 to 30 km long (minimum 5 km, maximum 40 km) which is relatively homogenous with regard to the Hydrology, Physical Form, Water Quality and Aquatic Life Sub-indices

Register of National Estate - The Australian Heritage Commission has compiled this Register since 1976. There are now more than 13 000 places of natural, historic and indigenous significance listed

Riffle - The high point in the bed of the stream between two pools (it is often covered in gravel or coarser material). Water is often shallow and fast flowing.

Riparian - Pertaining to the banks of a river (usually more broadly defined as a strip of land tens of metres wide along the banks of stream).

Riparian Vegetation - Vegetation growing in the riparian zone.

Rock Beaching - The placement of large rocks along river or gully banks to prevent erosion from water scour or wave action.

Rock Chute - Construction within the river channel which is made up of a layer of dense angular rock used to build a long sloping chute. Total fall usually limited to about 1m. The design incorporates an upstream crest, a chute section and an energy dissipating area. Used to control active bed erosion in gullies, streams and rivers.

Salinity - The concentration of dissolved salts in water, mainly chlorides, bicarbonates and sulphates of sodium, calcium, magnesium and potassium. Salinity is a natural feature of waterways and varies across the landscape. Increasing salinity from changed land and water issue is a serious issue for both aquatic and terrestrial ecosystems.

Sedimentation - The deposition and/or accumulation of small particles of soil, sand or clay which has dropped out of the water column. Can lead to in-stream habitat degradation and may be the result of up-stream erosion.

SEPP - State environment protection policies (SEPPs) are pivotal in protecting water environments as they set uses and values of water environments that communities want to protect, establish 'goal-posts' so we know when they are protected and provide clear guidance on what we need to do to protect them. These policies are legal tools made under the Environment Protection Act 1970.

SIGNAL - An indicator in the Aquatic Life Sub-index of the ISC that measures effect of pollution on aquatic biota. SIGNAL is an acronym for Stream Invertebrate Grade Number-Average Level.

Significant Fauna - A Victorian (VROT) or Australian (AROT) threatened species.

Significant Flora - A Victorian (VROT) or Australian (AROT) threatened species.

Stabilization - To make or become stable. In River Management it may relate to slowing down the rate of negative impacts such as bed or bank erosion, through engineering or revegetation works.

Streamside Zone - Area adjacent to a stream including the bank, riparian zone and billabongs until a change in land use.

Structural Intactness - An indicator in the Streamside Zone Sub-index of the ISC that compares the natural and existing cover of tree layer, shrub layer and ground layer.

Tributary streams - Tributary streams are defined in the ISC as those streams which have a catchment area between 5 000 hectares and 30 000 hectares.

Turbidity - The cloudiness of water caused by reduction in the transmission of light. Often caused by suspended sediment and other material. Lack of clarity or visible pollution (dirtiness) primarily due to suspended material in the water causing a reduction in the transmission of light. Turbidity is usually measured in Nephelometric Turbidity Units.

Wetland Connectivity - The degree in which wetlands are connected to a stream.

32 Abbreviations

AROT	Australian Rare or Threatened Species
CAMBA	Chinese Australia Migratory Birds Agreement
CCMA	Corangamite Catchment Management Authority
CRHS	Corangamite River Health Strategy
CVU	Central Victorian Uplands
DCNR	Department of Conservation and Natural Resources
DNRE	Department of Natural Resources and Environment
DO	Dissolved Oxygen
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
EC	Electrical Conductivity
EPA	Environmental Protection Authority
EPBC	Environmental Protection and Biodiversity Conservation Act
FFG	Flora and Fauna Guarantee Act
FSL	Full Supply Level
ISC	Index of Stream Condition
JAMBA	Japanese Australia Migratory Birds Agreement
LCC	Land Conservation Council
LCDS	Lough Calvert Drainage Scheme
LWD	Large Woody Debris
MAT	Management Action Target
NLWRA	National Land and Water Resources Audit
NRM	Natural Resource Management
OP	Otway Plain
OR	Otway Ranges
PV	Parks Victoria
RCS	Regional Catchment Strategy
RCT	Resource Condition Target
RiVERS	River Values and Environmental Risk System
SEPP (WoV)	State Environment Protection Policy (Waters of Victoria)
SRW	Southern Rural Water
TN	Total Nitrogen
TP	Total Phosphorus
VCMC	Victorian Catchment Management Council
VRHS	Victorian River Health Strategy
VROT	Victorian Rare or Threatened Species
VVP	Victorian Volcanic Plain
WMIC	Waterway Management Implementation Committee
WP	Warrnambool Plain
WYDS	Woody Yaloak Diversion Scheme