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# GLOSSARY

#### ABARE

Australian Bureau of Agricultural and Resource Economics

#### ABS

Australian Bureau of Statistics

#### Aerosols

Solid particles or liquid droplets suspended in a gas, ranging from 5nm to larger than 10µm in radius. They can be either naturally occurring, or man made, the latter usually being a pollutant.

#### Afforestation

The establishing of a forest by artificial means in an area that is not a forest, or has not been a forest for an extended period of time.

#### Agronomy

The scientific study of producing food and energy from plants, as well as soil conservation.

#### Airshed

A geographical region where atmospheric pollutants from that ground area are present in the air.

#### Ambient

Background conditions occurring in the environment, often used as a reference point for measurement.

#### Anthropogenic

Anything that happens as a result of human activites. This includes the production of goods and materials.

#### ANZECC

Australian and New Zealand Environment and Conservation Council

#### AQIS

Australian Quarantine and Inspection Service

#### Aquaculture

Commercial growing and farming of marine or freshwater life under controlled conditions

#### Aquifer

Permeable, underground layers of rock and/or loose material such as soil and gravel that are able to hold and transmit water

#### Arterial Roads

Main roads that convey large quantities of traffic between areas within urban centres

#### AusBIOSEC

Australian Biosecurity System for Primary Production and the Environment

#### AUSRIVAS

Australian River Assessment System

#### Ballast Water

Water taken into the keel of a usually empty boat to provide stability. This water is pumped out when load is taken, often in a different location to where it was taken.

#### Biodiversity

Variability of life within any given ecosystem. This includes diversity within species, and between species and incorporates organisms from all origins.

#### Biofuels

Fuel created from biological material, most common being crop plants.

#### **Biomass/Biogas**

Total mass of living material within a given area.

#### Bioprospecting

The collection of biological material to derive genetic material to be used in the chemical, pharmaceutical, agricultural industries.

#### Bioregion

A region defined by physical and environmental characteristics.

#### By-catch

In fishing, the part of the catch that is not a targeted species and as such is either discarded or expelled.

#### **Carbon Intensity**

Ratio of Carbon Dioxide emitted to energy released when burning a given fuel.

#### Carbon Sink

A system that captures and stores carbon dioxide, e.g. oceans and forests.

#### Catchment

An area of land determined by topography from which all precipitation is captured and drains to a specific point.

#### **Climate Model**

A computer simulation to help determine and project future climates.

#### Contamination

Introduction of a material or substance into an environment in which it does not belong. For example, introduction of pollutants into the air or soil can result in contaminated ground and air.

#### Concentration

Amount of a substance that is mixed in with another substance.

#### DDE/DDT

DDT is a pesticide that was used extensively until the 1970's when it was banned from sale. Its toxicity was so great that species, including humans, outside the scope of its usage were often adversely affected. DDE is formed as a result of DDT breaking down and can also have adverse affects on the health of humans and other species.

#### Diffuse Source

Source of pollution that is not a single point. Emissions come from numerous, widespread sources. eg. motor vehicles.

#### Digitising

Conversion of physical data such as images and documents into a computer based representation, i.e. a digital image.

#### **Ecological Footprint**

A measure of the global land area required to produce the resources needed by an individual or population to sustain their way of life.

#### Ecosystem

A system in which all living organisms interact and function together, and with the physical surrounds, as a single unit.

#### Electromagnetic Survey

Method of transmitting electromagnetic signals into the Earth's surface, from which a map can be created to help determine underground rock formations, pollution, groundwater and salinity.

#### **Emission Intensity**

Amount of Carbon Dioxide emitted per unit of electricity generated.

#### **Environmental Flows**

The Quantity of water needed in a water system to maintain its health.

#### EPBC Act

Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth)

#### EPP

**Environment Protection Policy** 

#### Equilibrium

The state of a system in which all factors are balanced.

#### Estuary

A tidal body of water adjacent and open to the ocean, into which rivers and streams flow.

#### **Evapo-transpiration**

The total amount of water lost from the Earth's surface to the atmosphere, through evaporation from a body of water and through the leaves of plants (transpiration).

#### Fire Regime

The fire regime in a given area describes the fire's extent, type, frequency, seasonality, intensity, and other attributes.

#### Floodplain

Generally flat land that bounds a river, which becomes covered in water during times of flood.

#### **Geothermal Energy**

Energy that is generated using heat that is stored underneath the Earth's surface.

#### Greenhouse Gases

Gases in the Earth's atmosphere that are responsible for causing the Greenhouse Effect and maintaining the Earth's temperature.

#### Greywater

Waste water from domestic uses, such as clothes washing and personal bathing.

#### Groundwater

Water stored underground in aquifers that can be accessed by springs, wells or bores.

#### Groundwater Recharge

The process of replenishment of groundwater resources.

#### Heated Effluent Disposal

Discharge of warm water from a power plant in to a nearby body of water, resulting in a localised rise in water temperature which can affect the surrounding ecosystem

#### Heritage Object

A specific heritage item at a heritage site, or item in a heritage collection institution such as an archive, library or heritage building.

#### Hydrocarbon Fuels

Fuel of organic origins that contain only hydrogen and carbon. These include oil, coal and natural gas.

#### Ice Cores

A core taken out of an ice sheet that, through analysis of entombed air bubbles from the ice, can give an indication of what the climatic conditions were at a certain time.

#### Immunocontraception

Birth control method that uses the body's immune response to prevent pregnancy.

#### Indigenous

Originating and occurring naturally in a given area.

#### Intercensal Period

The time between two censuses taking place.

#### Inter-glacial Period

A time of relatively warm global average temperatures separating glacial periods.

#### Macroinvertebrate

Aquatic animals without backbones

that are large enough to be seen with the naked eye. These include insects, crustaceans, molluscs, worms, mites and sponges.

#### Mainswater

Water that is delivered to households via a supply network controlled and maintained by an authority. For South Australia this is SA Water.

#### Microchipping

A small implant placed under the skin of an animal which contains information about that particular animal, and can be used to aid identification.

#### Natural Resource Management

Integrated management of resources such as water, soil, plants and animals, working towards sustainable usage of all resources.

#### **Nitrogen Fixing**

The ability of certain plants to take atmospheric nitrogen (N2) and convert it to nitrogen compounds that add to soil nitrogen levels.

#### **Nutrient Loading**

The amount of nutrients entering a specific ecosystem over a given amount of time.

#### Oxygen Isotopes

Different forms of oxygen that can be used to determine climatic conditions at different times. They are particularly common in ice cores.

#### Particulate Matter

Particles of solids and liquids, such as dust and water vapour that are suspended in the atmosphere.

#### Pathogen

An organism or agent that can cause disease and illness.

#### Perennial

A plant that lives for more than two years.

#### Peri-urban

The area immediately around an urban centre.

#### **Photochemical Smog**

Visible pollution that is created when sunlight reacts with chemicals such as ozone, oxides of nitrogen and volatile organic compounds.

#### Photopoint monitoring

Repeat photography of a certain area over time, taken from the same point. Photographs are then compared to show visible changes.

#### Photosynthesis

The biological process of turning water and carbon dioxide into oxygen and

carbohydrates, using light as energy to complete the reaction. This is essential for almost all plants to survive.

#### Piezometer

A device used to measure the water pressure of underground water in aquifers.

#### Prescribed Burn

Intentionally lit and managed fires within an ecosystem which can be important to the correct management of the system.

#### Ramsar Site

A wetlands site of international significance, classified under the Ramsar Convention for the conservation and sustainable utilisation of wetlands.

#### **Remnant vegetation**

Stands of the original vegetation of an area.

#### **Remote Sensing**

Gathering of information from a certain area without being in physical contact. Satellite imagery and aerial photography are two common methods of remote sensing.

#### **Renewable Energy**

Renewable energy is energy generated from natural resources such as sunlight, wind, rain, tides and geothermal heat which are renewable (naturally replenished).

#### **Riparian Zone**

The area of interface between land and a river or stream. Vegetation in this zone are particularly influenced by the health of the water body.

#### Runoff

Any water that does not penetrate into the ground and consequently runs across the surface of the land.

#### Salinity

SASP

The amount of salt in a particular body of water or land.

### South Australian Strategic Plan.

#### Sea change

A social phenomenon in which people living in the city move to coastal communities.

#### Sodicity Soil with a high soo

Soil with a high sodium content

#### Spatial Modelling

A computer generated model of a particular place that can be used for analysis of certain aspects.



#### Subtidal

Land and marine ecosystems, usually in an estuary, that are permanently covered by water, even at low tide.

#### Supratidal

Land and ecosystems that extend from the high tide mark, inland.

#### Таха

A defined unit (e.g., subspecies, species or genus) in the classification of plants or animals.

#### Tree Ring

Rings in the trunk of a tree, caused by growth during a season, can be used to determine the age of the tree as well as climatic conditions at certain times in the past.

#### Turbidity

Cloudiness of water caused by suspended solid particles, such as soil. Turbidity is used as a factor in determining water quality.

#### UNESCO

United Nations Educational, Scientific and Cultural Organisation

#### UNFCCC

United Nations Framework Convention on Climate Change

#### **Virgin Materials**

Earth resources that have been extracted but not yet refined, e.g. timber and ore.

#### Volatile Organic Compounds

Organic chemical compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the atmosphere.

#### Watertable

Level of groundwater below the surface.

#### Wetlands

An area that is permanently, seasonally or intermittently waterlogged or inundated with fresh, saline, flowing or static water.

#### WHO

World Health Organisation



# For further information please contact:

Information Officer Environment Protection Authority GPO Box 2607 Adelaide SA 5001 Telephone: (08) 8204 2004 Facsimile: (08) 8204 9393 Freecall: 1800 623 445 (country) Website: www.environment.sa.gov.au/soe2008