

What is salinity, and how is it measured?

The term salinity refers to the movement and concentration of salt through the landscape. Salinity can occur in both water and soils.

Electrical Conductivity (EC) is a relative measure of salinity. An EC meter is used to measure how much salt is present by detecting the flow of electricity between two electrodes. Many different units can be used to report salinity; however micro-Siemens per centimetre ($\mu\text{S}/\text{cm}$) is most commonly accepted.

Where does salt come from?

Salt is a natural component of the environment, derived through three main processes; weathering of rocks, ancient inland seas, and rainfall. Salt occurs throughout Australia at varying levels.



What causes changes to salinity levels?

Variation in salinity levels can be due to many processes including; geological weathering, groundwater interactions, land-use changes, waste and stormwater runoff, and altered rainfall patterns.

Impacts of salinity

Impacts of increasing salinity include; loss of species diversity and abundance, loss of productive land, reduced value of water, degraded water quality, reduced health of fauna and flora, limited uses of the water, and damage to infrastructure. All organisms have set tolerance levels for salinity, once these limits

are exceeded it is expected that symptoms such as a decline in health or growth rate will be experienced.

A sudden change to salinity levels can have a lethal impact on animal health and may cause illness or death.



Approaches to reduce salinity

Commonly accepted techniques employed to reduce the impact of salinity include; planting deep rooted native trees in high recharge areas to lower the watertable, improved land management practices e.g. whole farm planning; and monitoring of groundwater and surface water to determine changes in salinity levels.

What is...water quality series

The *What is...* water quality series of fact sheets are designed to introduce readers to some of the most commonly measured water quality parameters.

These include: Salinity; pH; Turbidity; Phosphorus; and Flow.

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