

Key Terms

Term	Definition
Alkalinity	Capacity of water to resist pH change by its content of bicarbonates, carbonates, or hydroxides. Measured in mg/L as CaCO ₃ .
Brine	See Concentrate
Buffer zone	Area around a plant to provide a barrier to minimise disturbance to neighbouring areas (e.g. noise, odour etc)
Co-location	Siting of a desalination plant with an industrial facility such as a power station to utilise waste heat and existing infrastructure.
Concentrate	Saline waste stream produced as a by-product of the desalination process.
Concentrate Outlet	Structure used to discharge concentrate back into the marine environment with diffuser structures attached.
Desalination	Process of producing fresh water from saline water.
Diffuser	Structure fitted to the outlet to facilitate rapid mixing and dilution of concentrate back into the marine environment.
Greenhouse Gas	A number of gases, which contribute to global warming, measured as a mass of equivalent carbon dioxide.
INCA	Geographical information system (GIS) model used to evaluate locations against a wide range of criteria.
Long Listed Locations	Initial set of potential locations considered as part of this study.
Osmotic Pressure	Pressure gradient across a semi-permeable membrane created by the difference in concentration of a solute.
Post-treatment	See potabilisation.
Potabilisation	Treatment of desalinated water to add alkalinity and make suitable for drinking.
Pre-treatment	Treatment to remove suspended solids and other matter from influent seawater prior to desalination
Potable Water	Water suitable for human consumption and compliant with the Australian Drinking Water Guidelines and the Victorian Safe Drinking Water Act.
Reverse Osmosis	A water treatment process whereby dissolved salts may be separated from water by forcing the water through a semi-permeable membrane under high pressure.
Seawater Intake	Structure (either tunnel or pipeline) used for drawing seawater to be desalinated.
Short-circuiting	Risk of water from another source (e.g. concentrate outlet, drain etc) being drawn into the intake structure and into the treatment plant.



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Short Listed Locations	Set of potential locations refined from the long listed set.
Sludge	Waste by-product of the pre-treatment process containing solids and organic matter removed from incoming seawater.
South Eastern Outfall (SEO)	Pipeline used to transfer treated effluent from the Eastern Treatment Plant at Bangholme for discharge into Bass Strait at Boags Rocks
Suspended Solids	Solids present in seawater that are removed by the pre- treatment process.
Thermal Desalination	Desalination process utilising heat by evaporating “pure” water, leaving the salt behind.
Transfer Pipeline	Pipeline used to carry desalinated water to supply network.
Recovery	Proportion of influent seawater converted to fresh water, expressed as a percentage.
Total Dissolved Solids	Measure of the dissolved constituents in water (e.g. salt)
Water Quality	Term used to describe water based on its chemical constituents and characteristics.