A POCKET GUIDE TO

Monitoring Water Salinity

IN NORTH EAST VICTORIA

Testing the salinity status of local rivers, creeks, dams and groundwater supplies is a useful tool in determining one aspect of water quality. This calculator has been developed to assist you in converting the common units used in measuring water salinity. The amount of salt in a sample of water can be measured in the following ways. Either as total dissolved salts (TDS) or electrical conductivity (EC).

Victoria Department of Natural Resources and Environment

Natural Heritage Trust

North East Catchment Management Authority

Victoria The Place To Be

This is a general guide to one aspect of water quality. It is possible for situations to occur that lead to higher or lower tolerances levels. Such as short/long term use of salty water, weather and not watering plants leaves. Note that other elements in water can become toxic as salt increases. This also plays a part in limiting water uses.

Salinity Tolerance Levels

EC Units microSiemens per centimetre, (µS/cm)

50,000 = Sea Water (approximately)

16,500 = Limit for adult sheep
15,500 = Limit for beef cattle and septic tanks

11,000 = Limit for lambs & weaners
6,200 = Limit for showers and baths
6,000 = Recommended limit for lactating ewes
5,500 = Limit for dairy cattle
4,700 = Limit for mixing herbicide
4,000 = May cause shell cracking in laying Hens
2,300 = Absolute limit for people
2,000 = Recommended limit for irrigating lucerne
1,800 = Limit for roses, camellias and azaleas
1,700 = Tastes salty
1,600 = Limit for hot water systems
800 = Ideal limit for people
200 = Murray River at Mildura on 25/7/02
0 = Pure distilled water

Salinity Status of North East Creeks/Rivers in 2000.

354 = Mean Daily EC Indigo Creek
167 = Mean Daily EC Black dog Creek
64 = Mean Daily EC Ovens River

Salinity Converter

Formula: 100EC (µS/cm) = 64ppm

EC (µS/cm)	=	ppm
20000		12800
15000		9600
10000		6400
8000		5120
5000		3200
2000		1280
1000		640
500		320
200		128
100		64
50		32
0		0

Caution: Always determine the units your salinity meter measures in before using this information. Some meters use another EC scale: deciSiemens per metre (dS/m). If this is the case multiply the reading on the screen by 1000 to get EC (µS/cm) as listed here.

Salinity:
Extreme
High
Medium
Low

Electrical Conductivity (EC) units are: microSiemens per cm (µS/cm)
Total Dissolved Solids (TDS) units are: parts per million (ppm)

RESULTS: of water sample

Date	Location	EC Reading

For further information:
Contact your local Salinity Extension Officer at:

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For information on the Department of Natural Resource and Environment (NRE), visit www.nre.vic.gov.au or call the NRE Customer Service Centre on 136 186