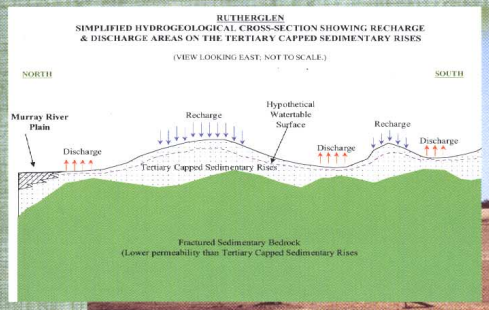
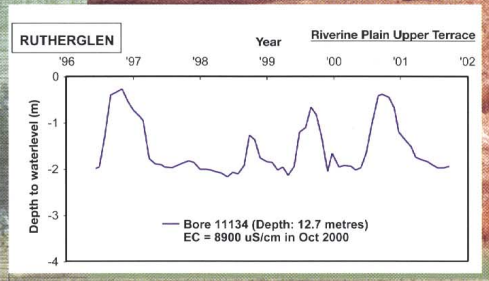
What Causes Salinity?

Salinity results from an imbalance in the water cycle. Native vegetation has developed over thousands of years to use most of the rain that falls in a landscape. However, introduced shallow rooted pastures and crops use less water than the original vegetation.

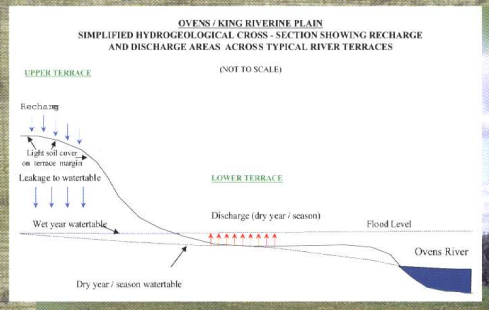
Some of this unused rainfall drains through the soil profile, adding extra water to groundwater storage in a process known as **recharge**.

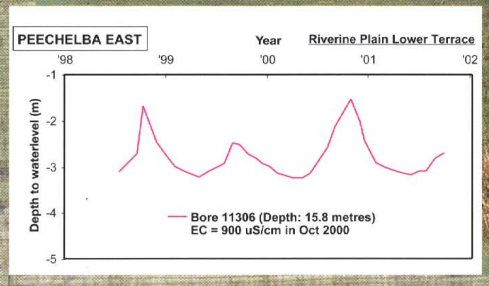
As the groundwater storage is filled the watertable rises. Salt in the soil is dissolved and moves upward with the watertable. If the watertable rises to within 1 to 2 metres of the land surface, water and dissolved salts are drawn up by evaporation to appear on the surface as **discharge**.





Substantial seasonal rise in groundwater during winter/spring period in all years except 1997 and 2001. Groundwater trend is inconclusive due to short period of monitoring.





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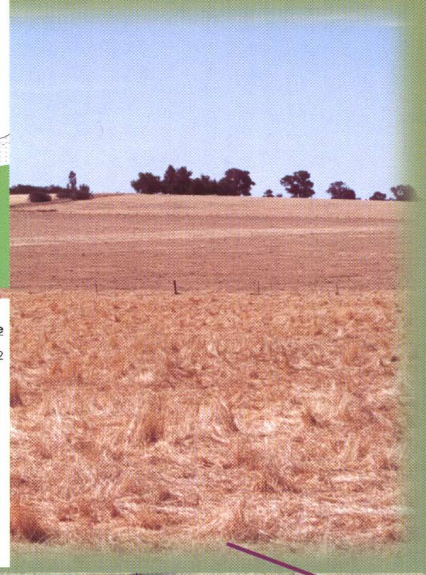

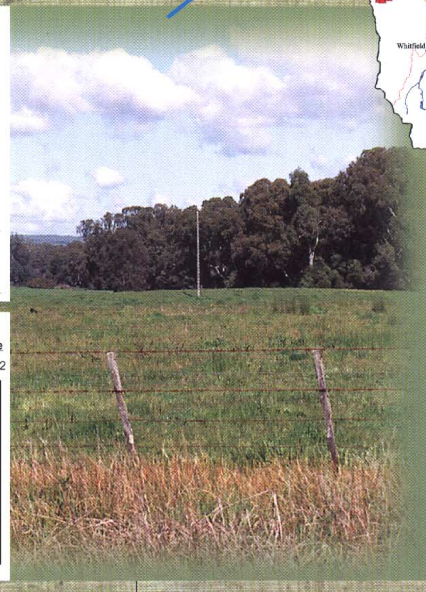

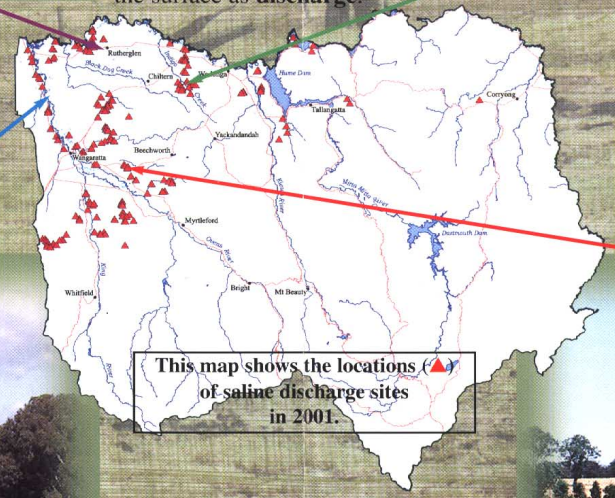

This map shows the locations of saline discharge sites in 2001.

Salt that accumulates near the land surface can impact on soil health and vegetation.

Geology, geography and climate vary across different landscapes. These factors influence if and how salinity develops.

Monitor bores are an effective method to measure watertable and salinity (EC) trends.

Hydrogeological diagrams and bore graphs of 4 districts are included on this page.

Water level rose slightly during the wet years in late 1980s and early 1990s. Then a significant fall from 1994 to 1998 followed by a rising trend to 2001.

Water level had a sharp rise from 1989 to 1993 and substantial rise in 1995-6. Slight fall during the dry periods in 1994 and late 1990s followed by a rising trend to 2001. High salinity risk in this area.