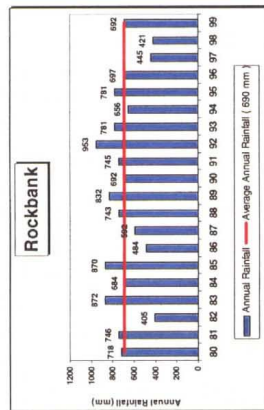
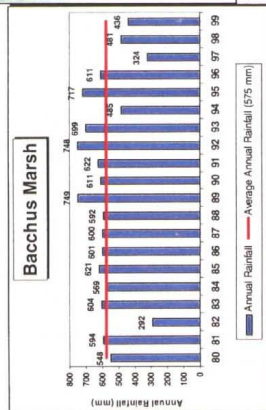


# SELECTED HYDROGRAPHS FROM KEY BORES IN THE ROCKBANK - BALLIANG AREA.

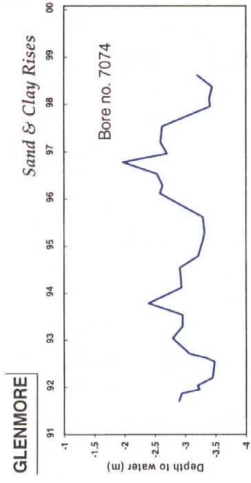
## Groundwater Trend Update

**GROUNDWATER HYDROGRAPHS**  
A graph of groundwater levels against time is usually referred to as a hydrograph. The pattern of water level variation in a hydrograph is dependent upon the nature of the groundwater system. As well as indicating long term trends, the hydrograph often also fluctuates according to the seasons. A peak is commonly observed in winter/spring as a result of recharge during this period. Where there is minimal seasonal fluctuation, only minor recharge to the watertable is suggested, though soil waterlogging may then be the significant issue.

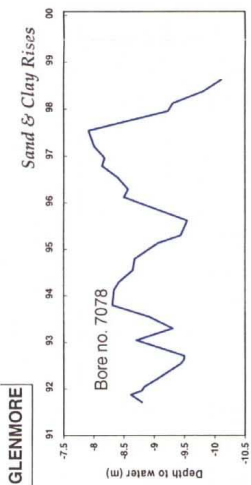
### Selected Rainfall graphs



**RAINFALL GRAPHS**  
The general falling trends observed in the Rockbank and Balliang hydrographs can be directly related to a larger than normal number of dry years since the mid 1990s. Observation of the annual rainfall data at Bacchus Marsh and Rockbank clearly indicates a dry 1994, and continuous dry years from 1997.



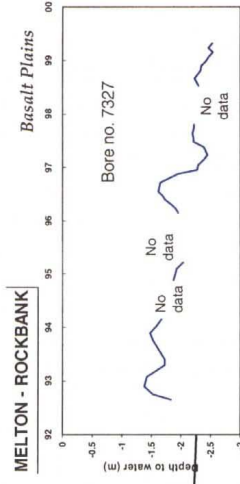
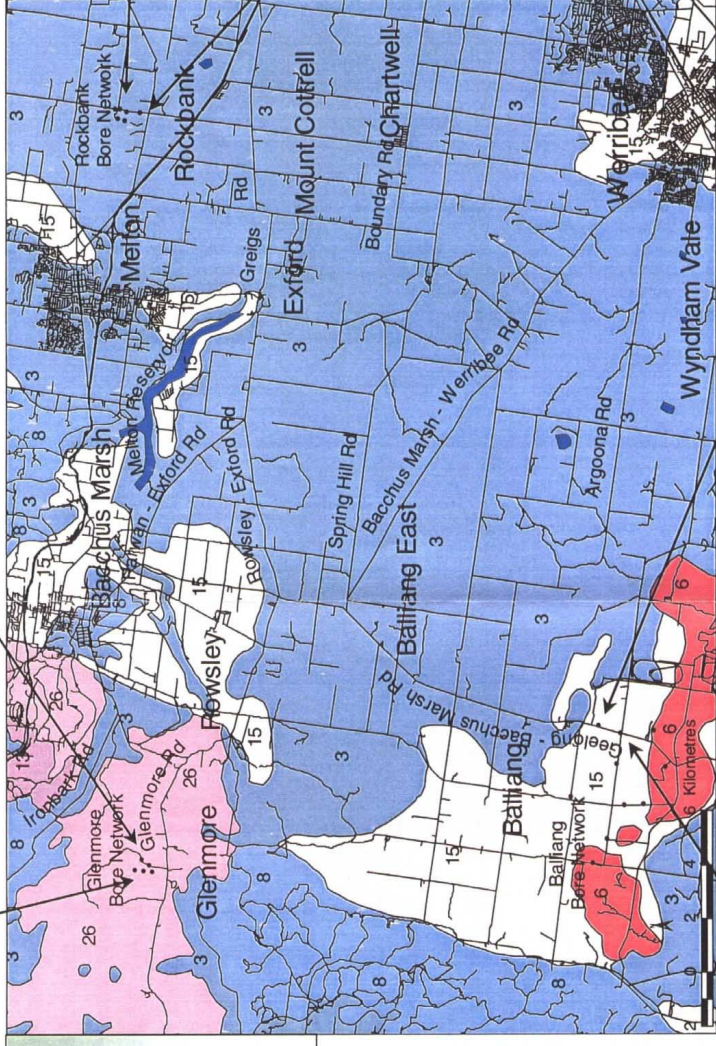
Overall flat trend, with significant seasonal recharge events.



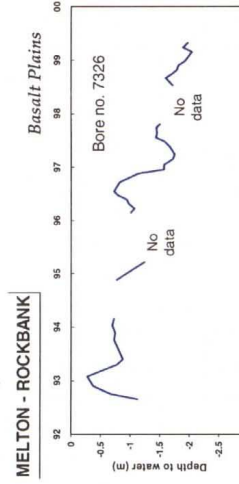
Overall flat trend throughout the seven year monitoring record.

**KEY BORES**  
Seven representative or key bores have been selected across the area to assist in the analysis and reporting of groundwater trends. These have been selected on the basis of representative trends within a monitoring network, geographic distribution, quality and length of record. Trends from the key bores are reported on a two yearly basis.

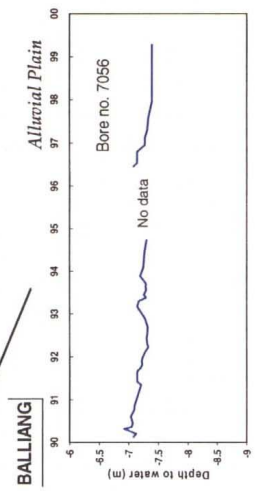
- LEGEND**
- Groundwater monitoring bores
  - Roads
  - Land Management Units
    - Alluvial plain (19)
    - Basalt plains (3)
    - Clay plains (14)
    - Cropped basalt rises (5)
    - Dissected plain (24)
    - Granite rises (6)
    - Greenstone (14)
    - Lake & dune system (19)
    - Sand & clay rises (26)
    - Southern hills (27)
    - Stony rises (20)
    - Western highland hills (8)



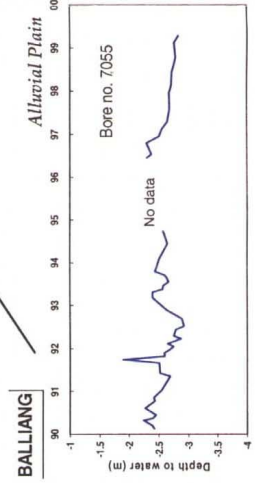
Despite significant gaps in the data, overall there is a falling watertable trend since 1992.



Gradual fall in watertable since 1993 that coincides with a period of lower rainfall.



Overall steady watertable level with marginal fall since 1990. Little recharge indicated here, though seasonal perched watertables may be significant



Overall steady watertable level.

**LAND MANAGEMENT UNITS**  
The key bores here overlay Land Management Units (LMUs). LMUs are zones of similar geology, soils, landscape type and climate. By definition, a particular LMU would be expected to respond in a consistent manner with respect to salinity treatment.