

Groundwater in Victoria

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Introduction

In Victoria one out of 10 people use groundwater - from private bores, springs or public water supplies - for at least part of their daily water supply. This figure does not include mineral water consumption. There are 74 250 bores, extracting about 400 000 to 550 000 megalitres of water per year. Dependable groundwater supplies for private bores are available at depths less than 50 metres in most areas of the State. A bore yield of at least 0.5 litres per second is usually needed for home use, though higher yields are more desirable.

Where's the Groundwater?

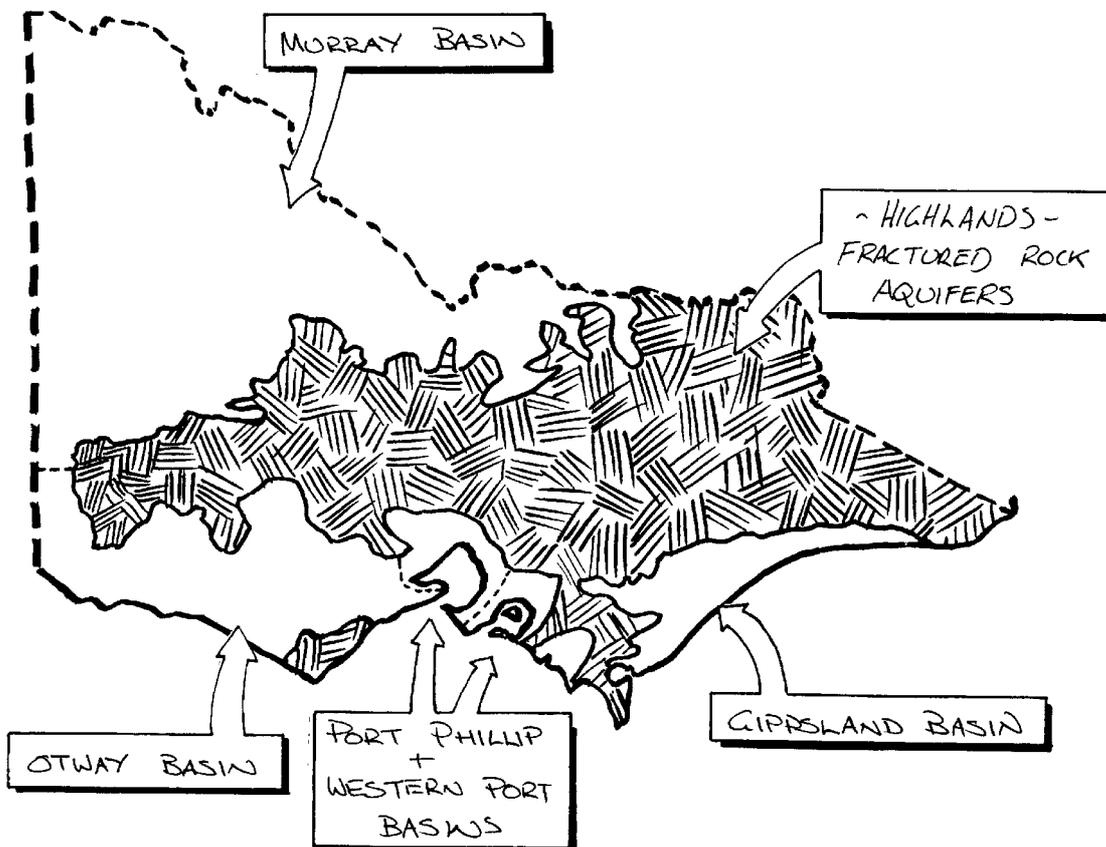
The physical structure of Victoria is dominated by a central backbone of fractured rocks known as the Highlands, which form part of the Great Dividing Range. Over the past 50 million years substantial deposits of sand, clay, gravel, calcareous sediments

(e.g. limestone), basalt and coal have accumulated to form gently undulating plains in sedimentary basins south and north of this backbone. These sediments host the major **aquifers** (see Groundwater Note Number 1 in this series).

The Gippsland and Otway basins are the major basins south of the Divide while the Murray Basin is the dominant basin north of the Divide and includes important sub-basins such as the Goulburn, Broken, Ovens, Campaspe and Loddon. The Port Phillip and Western Port basins are important smaller basins south of the Divide.

Groundwater Occurrence

Our understanding of groundwater occurrence in Victoria is the result of more than a century of groundwater use and over 30 years research by many state and federal agencies and private exploration



companies.

More than 120 000 bores have been drilled across the State. Many of these bores were drilled for mineral purposes for which limited records were kept, however comprehensive information including bore logs, groundwater levels and chemistry have been kept on a central Groundwater Database for more than 50 000 water bores.

All this information has been checked for reliability and pieced together with the data gained from strategic drilling programs during the 1970s and 80s to develop our current understanding of groundwater occurrence. The results are a series of maps, records and reports that detail many facets of the occurrence of groundwater and the rocks that contain it.

The Groundwater Notes series has issues specific to each groundwater basin. These offer a general guide to the location and depth of the aquifer, the likely yield and the quality of the groundwater.

Because bore yield and aquifer depth can vary locally, even on adjacent parcels of land, if you intend to tap groundwater you are advised to obtain more accurate information about the groundwater on your property. See Groundwater Notes Number 17 in this series about where you can get groundwater advice.

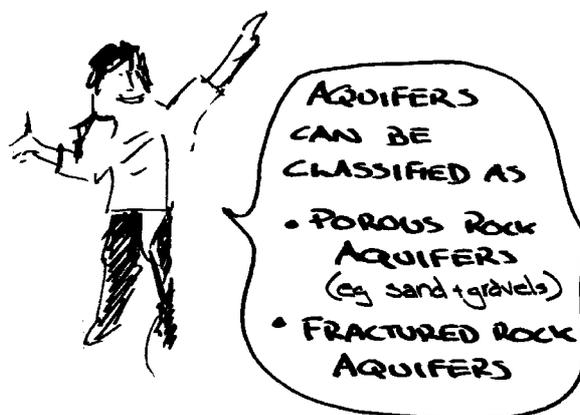
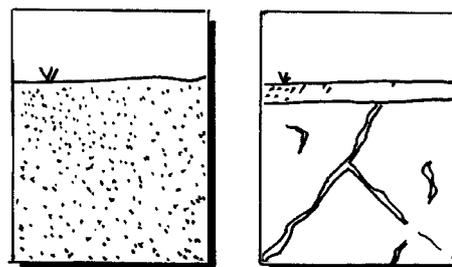
Groundwater Database

The Groundwater Database can be accessed for information on groundwater bores and data obtained from these bores and you should read Groundwater Notes Number 20 in this series for further information.

Groundwater Management

Demand for water in Victoria has led to greater use of groundwater for supply of drinking, stock and irrigation water, for "drought-proofing" properties and reliable supply.

Greater management of this resource is necessary to ensure all potential customers are allowed a fair and reasonable amount of what may be a limited resource. See Groundwater Notes Number 16 in this series for an overview of how this resource is being managed



Other Titles in this Groundwater Notes series are:

- 1 *What is Groundwater*
- 2 *Groundwater in Victoria*
- 3 *Groundwater Occurrence in the Highlands*
- 4 *Groundwater Occurrence in the Otway Basin*
- 5 *Groundwater Occurrence in the Gippsland Basin*
- 6 *Groundwater Occurrence in the Murray Basin*
- 7 *Groundwater Occurrence in the Westernport Basin*
- 8 *Groundwater Occurrence in the Port Phillip Basin*
- 9 *How to Become a Groundwater User*
- 10 *Drilling and Constructing a Water Bore*
- 11 *Testing the Aquifer & Pumping Groundwater*
- 12 *Testing Groundwater Quality*
- 13 *Looking after Your Water Bore Quality*
- 14 *Encrustation of Water Bores - Iron Bacteria*
- 15 *What Can You Do to Prevent Groundwater Pollution*
- 16 *Groundwater for Our Future*
- 17 *Where to get Groundwater Advice*
- 18 *When is a Bore a Water Bore*
- 19 *Decommissioning a Bore*
- 20 *Groundwater Data Base & Advisory Services*

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