

# Central Queensland News

## Friday 28 July 2017

# Delving deep into unknown

### Our contribution to Basin

THIS week's article tells an interesting and widely unknown local fact.

This week we delve into the Central Highlands sandstone belt and its contribution to what is the largest and deepest natural underground water storage system in the world, the Great Artesian Basin.

It's a story that goes back many millions of years and still has significance to this day.

The eastern rim of the Great Artesian Basin was formed with the uplifting of the Great Dividing Range about 200-230 million years ago. Later still, parts of the range were covered by basalt during a period of volcanic activity and further uplifted about 25 million years ago.

Over these many millions of years, a number of streams, including Carnarvon Creek, have cut down along vertical cracks in the sandstone.

The result is the many



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**PETER GRIGG**  
CHDC tourism development officer

deep gorges between sheer cliffs. Still today, the porous sandstone of the gorges are an important recharge aquifer for the Great Artesian Basin.

This underground water filters, over thousands of years, through the rocks to spread beneath a vast area of arid and desert regions of central Australia.

The movement of this water is made possible by an impervious layer of shale that underlies the porous rock. Because the sandstones are permeable, water gradually makes its way through the pores between the sand grains, flowing at a rate of one to five metres per year.



**REJUVENATING:** Artesian water from the bore at Burren Junction, Walgett maintains a temperature of approx 41.5 degrees. PHOTOS: CONTRIBUTED

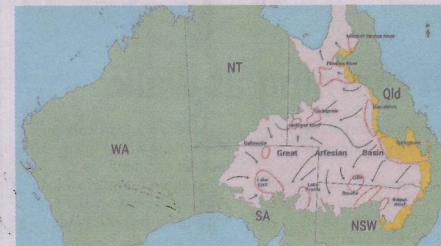
The Carnarvon Range are commonly referred to as the roof of Queensland, a range where the event of rainfall and run-off has a number of options of flow:

- Drain to the east and join a number of rivers and creeks flowing to the coast, the largest being the Dawson River system.

- Flow to the west where the waters eventually drain into the upper Murray-Darling River catchment area

- Be absorbed through the porous sandstone rock of the ranges and add to the ground water held within the Great Artesian Basin.

This recharge is so



significant that the sandstone ranges of central Queensland are one of the largest water contributors in the entire Great Artesian Basin system. The Great Artesian Basin underlies 23% of the continent

including Queensland, New South Wales, South Australia and the Northern Territory and in some arid inland areas provides the only source of fresh water. Who would have thought that our backyard plays such

The Great Artesian Basin.

“Our backyard plays such a vital role in the recharge and sustainability of ground water absorption

a vital role in the recharge and sustainability of ground water absorption into the Great Artesian Basin?”