

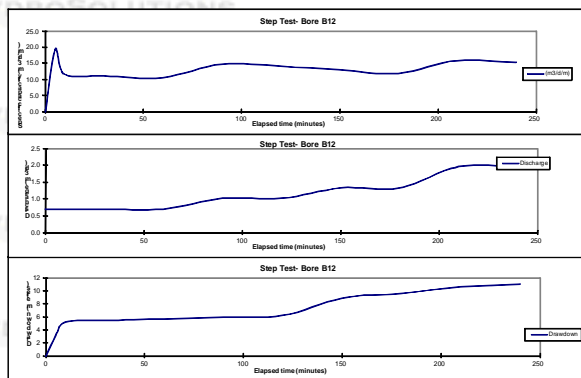
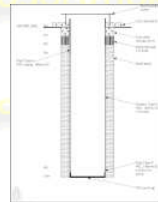
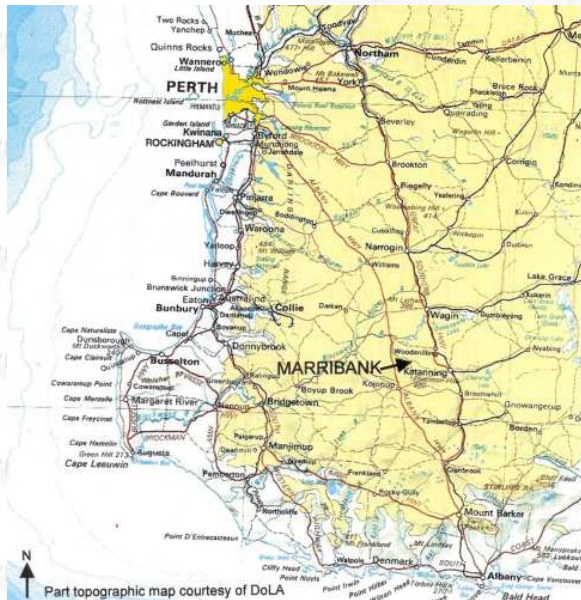


PROJECTS

HYDROGEOLOGY

Marribank Aboriginal Community Hydrogeological review for sourcing a groundwater supply

HydroSol Hydro37



Exploratory drilling was undertaken to meet the communities future water requirement, estimated to be 100m³/d.

Initial exploration found that fresh groundwater was unlikely to be available within the vicinity of the community. Additional exploration found deeper brackish groundwater & two production bores were completed, although the yield of one of these bores was not adequate.

The other bore was test pumped and could provide a supply of 133m³/d, sufficient for a reverse osmosis treatment plant to provide 100m³/d of potable water, with a maximum short term yield of approximately 175m³/d. The bore was found to be unaffected by waste disposal areas or septic tanks at the community and although the long term suitability of the bore is not known without a long term test pumping program the aquifer will be recharged during wet periods which will improve the sustainability of the abstraction.

An existing bore drilled for aquaculture purposes was also test pumped and found to be capable of providing 133m³/d with a maximum short term yield of 170m³/d.

Water from both bores would need to be pre-treated via reverse osmosis and chlorination as a minimum before use for drinking purposes. The untreated water is brackish, contains major ions, hardness, cadmium and thermotolerant coliforms exceeding the drinking water guidelines.

It was recommended that the production bore be utilised and the existing bore be used as a standby. The water should be treated before use and tested every six months. Existing water supply sources should be amalgamated into new water supply infrastructure which would include a groundwater storage tank.

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