

Prospectivity of new Hamersley Range groundwater resources



The Department of Water has discovered new water resources in seven alluvial aquifers in the Hamersley Range that have the potential to supply water for West Pilbara towns, industry and irrigated agriculture.

We reviewed more than 1000 reports from Department of Mines and Petroleum's online mineral exploration database, mining companies and other stakeholders. The combined data shows potential for around 10 GL/year from two aquifers that could be piped to Onslow; and 20 GL/year from four aquifers closer to the West Pilbara public water supply scheme.

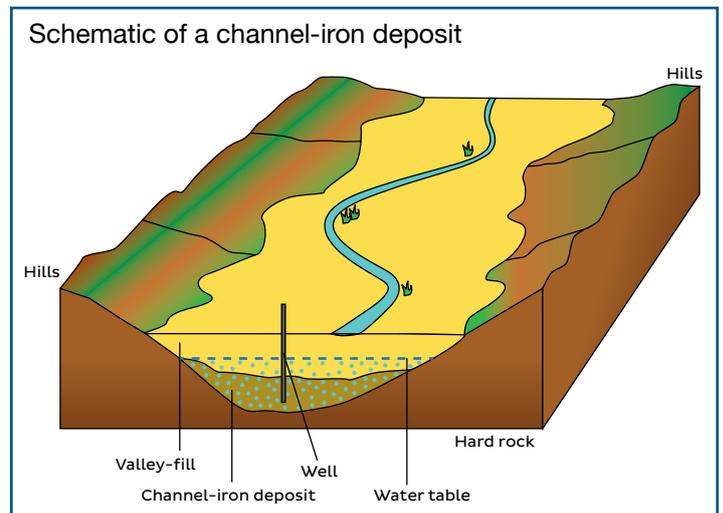
This new information is now ready for sharing with industry and government planners to stimulate new ventures and investment planning. These discoveries are a great example of the State Government's commitment to build on mining sector growth to diversify the economy, grow the population and provide liveable towns and cities in the Pilbara through Royalties for Regions.

Information compiled from the assessment is available, email enquires to: spatial.data@water.wa.gov.au

Our findings

The aquifers in the Upper Bungaroo, Weelumurra West and Caliwingina creek systems are the most prospective water resources in the north-west Hamersley Range. They are made up of channel-iron deposits and calcrete overlain by valley-fill material. The aquifers are generally fresh, relatively large, and are close to existing infrastructure.

Our estimates of minimum and maximum recharge and storage for each of the seven prospective aquifers give a preliminary indication of the size of renewable resources that could be developed.



Why channel-iron deposits, calcrete and valley-fill aquifers?

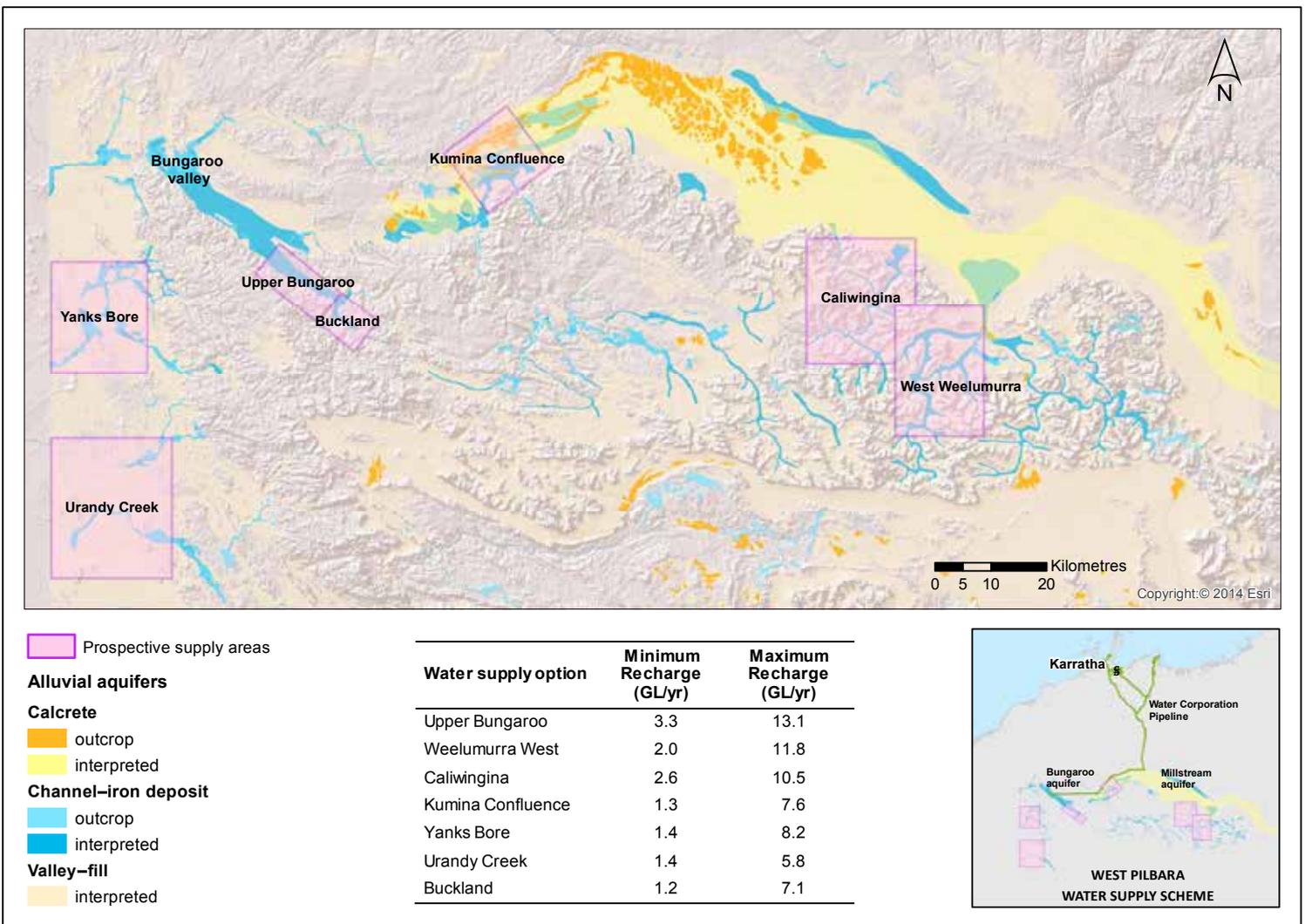
The geological makeup of the alluvial and calcrete aquifers in the Hamersley Range means they can soak up and store large volumes of water from regular cyclones and rainfall events.

Rio Tinto has already used groundwater from channel-iron deposits in the Bungaroo Valley to supply water for West Pilbara towns and ports. This project aimed to find similar resources and capitalise on existing infrastructure to supplement the West Pilbara Water Supply Scheme into the future.

Accessing water in the north-west Hamersley Range

The recharge estimates for the seven alluvial aquifers are a starting point to estimate water availability from the north-west Hamersley Range. Developers will need to provide additional hydrogeological assessment to support an application for a water licence in the area and are encouraged to contact the department's Karratha Regional office on (08) 9144 0200 for more information. Water availability information for the Pilbara is available online through the department's water register at www.water.wa.gov.au.

Hydrogeology of the north-west Hamersley Range and prospective supply areas



For further information, please contact

Department of Water
 Gary Humphreys • North West Regional Manager
gary.humphreys@water.wa.gov.au • Phone (08) 6364 6898

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