

Wildman River Area, NT

- Northern Australia Water Resources Assessment
 - How much **groundwater** can be extracted for **irrigated agriculture** without compromising **baseflow** to **springs** and **rivers**, existing **bores** and **groundwater dependent ecosystems**?
- Potential casestudy
 - Reduce predictive uncertainty of groundwater models by combining geophysics and environmental tracers (PhD Trine Enemark)
 - Probabilistic groundwater resource assessment (DEI FSP)

DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

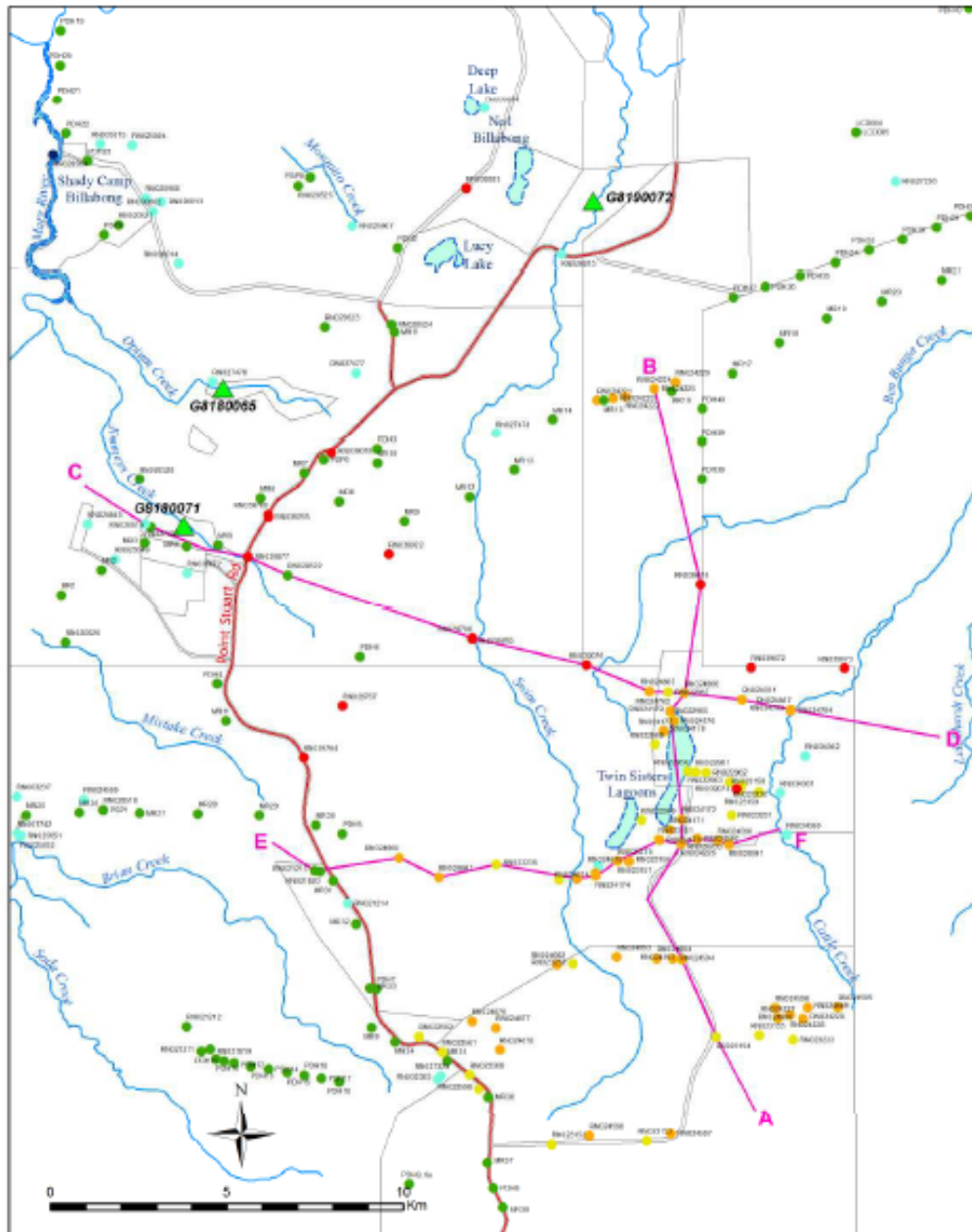


Water Resources Division
Report 8/2017D
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www.nt.gov.au/environment



Boreholes and Gauging Stations



Boreholes

- 2016 Investigation
- Stage 2 Investigation
- Stage 1 Investigation
- Mary River Investigation
- Private water bores
- Mineral Exploration

- ▲ Gauging Stations
- A—B Cross-section

Springs and Spring Fed Rainforests



Rainforest (Russell-Smith, 1991)

- Riparian rainforest
- Rainforest associated with springs

- ▲ Spring
- R Field site
- Stream catchment boundary
- ▲ Gauging Station

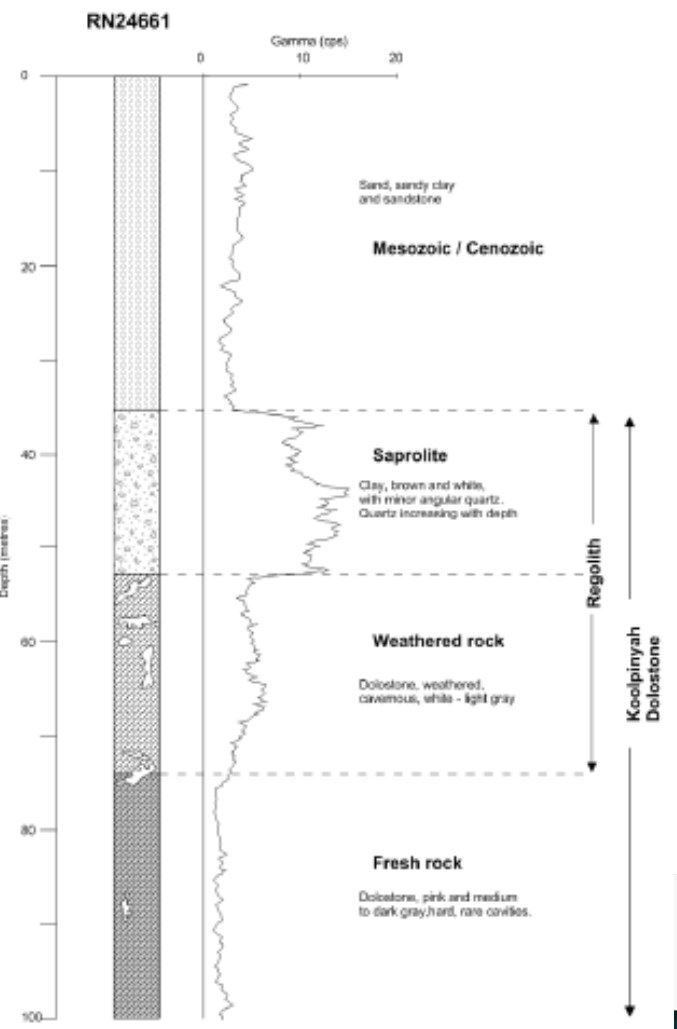
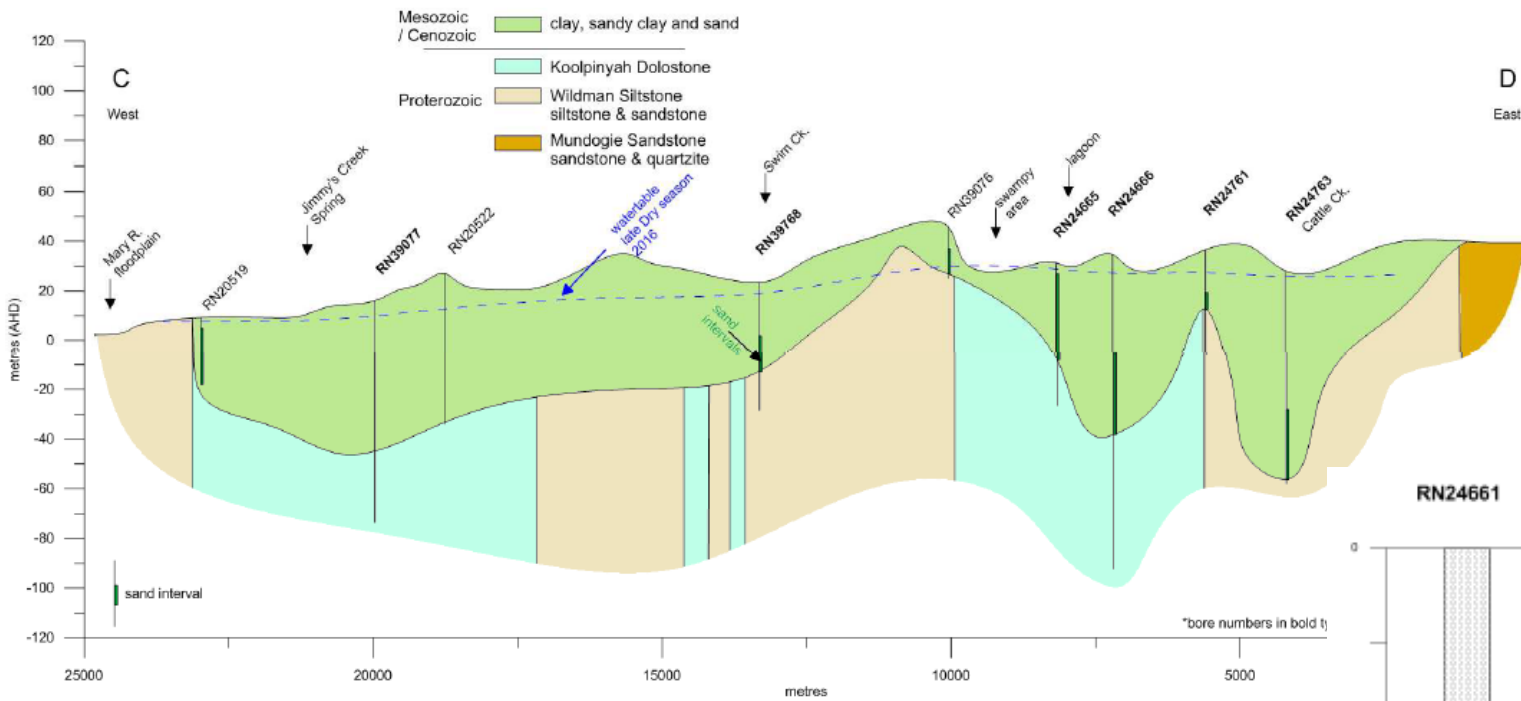
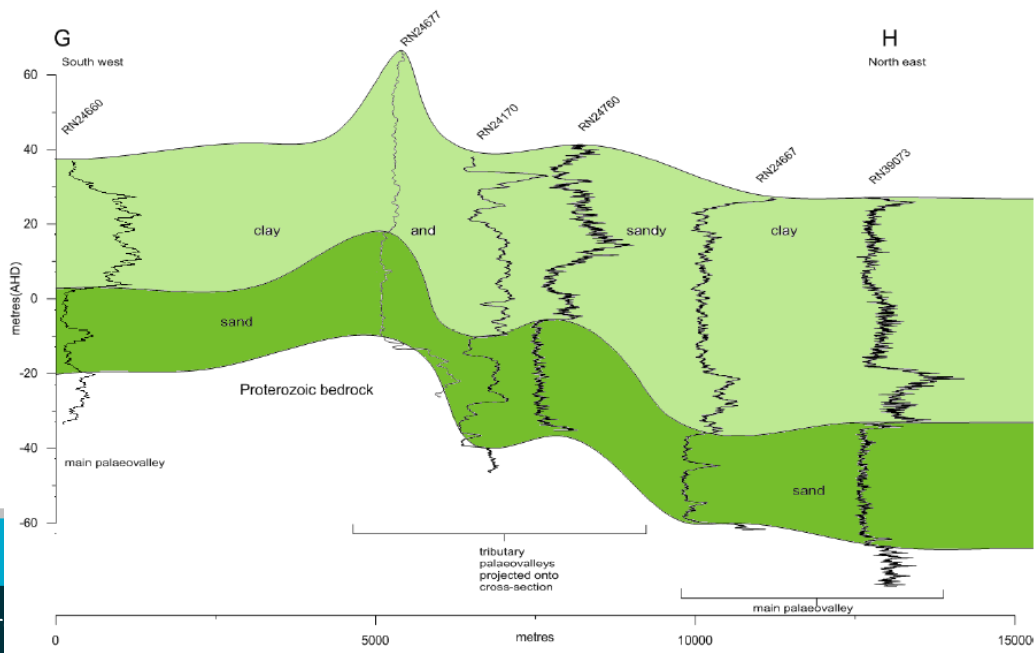
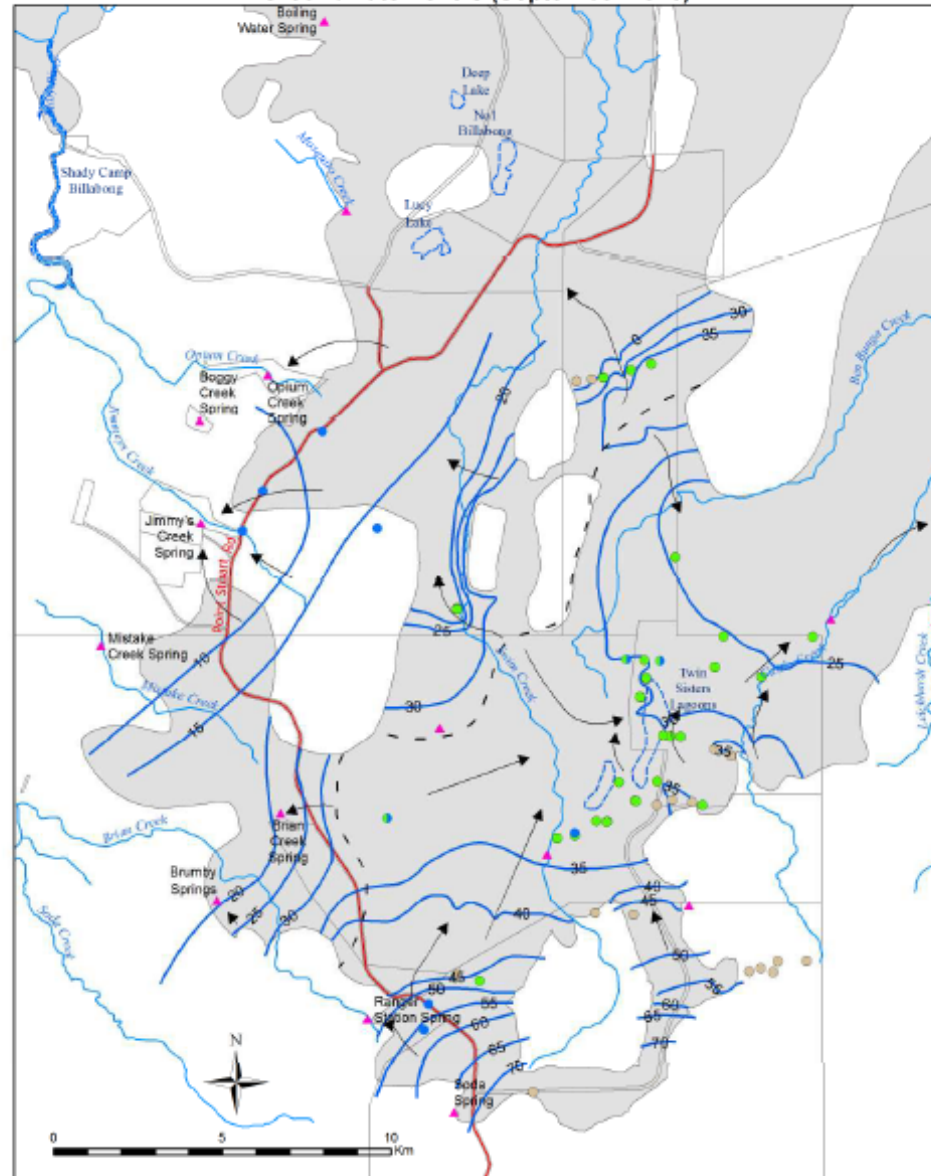


Figure 9 Cross-section C-D
See Figure 13 for location



Groundwater levels (September 2016)



Monitoring bores / aquifer

- Mesozoic / Cenozoic
- Mesozoic / Cenozoic & Koolpinyah Dolostone
- Koolpinyah Dolostone
- Wildman Siltstone

— 20 — Groundwater elevation (metres AHD)

- ▲ Spring
- - Groundwater Divide
- ▲ Generalised flow direction
- Mesozoic / Cenozoic aquifer

Figure 20 Groundwater levels (September 2016)

Woolner granite – Rum Jungle TEMPEST AEM

