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Project management, data compilation and interpretation by Graham Ride, Landcare Engineer, Natural Resources.

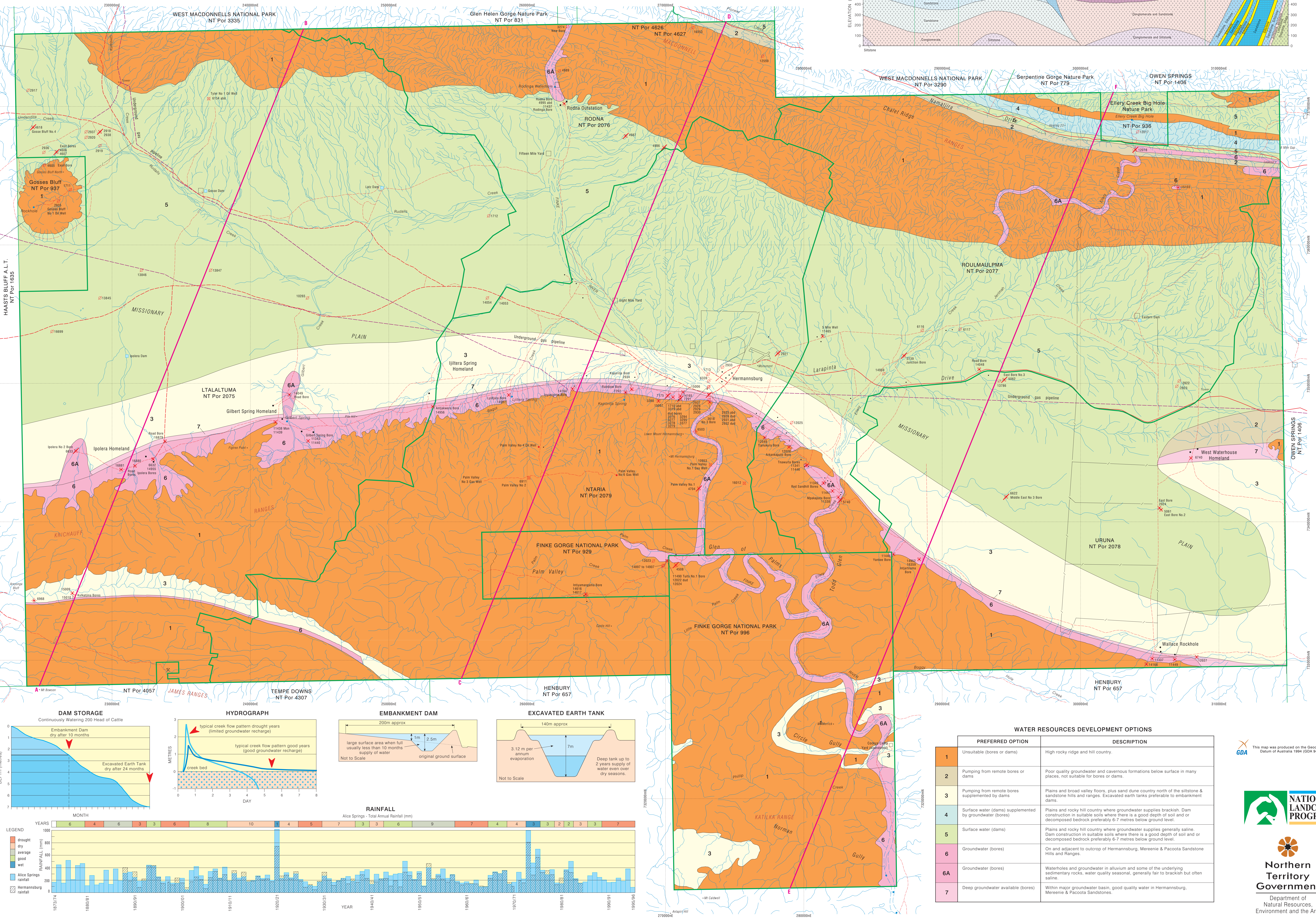
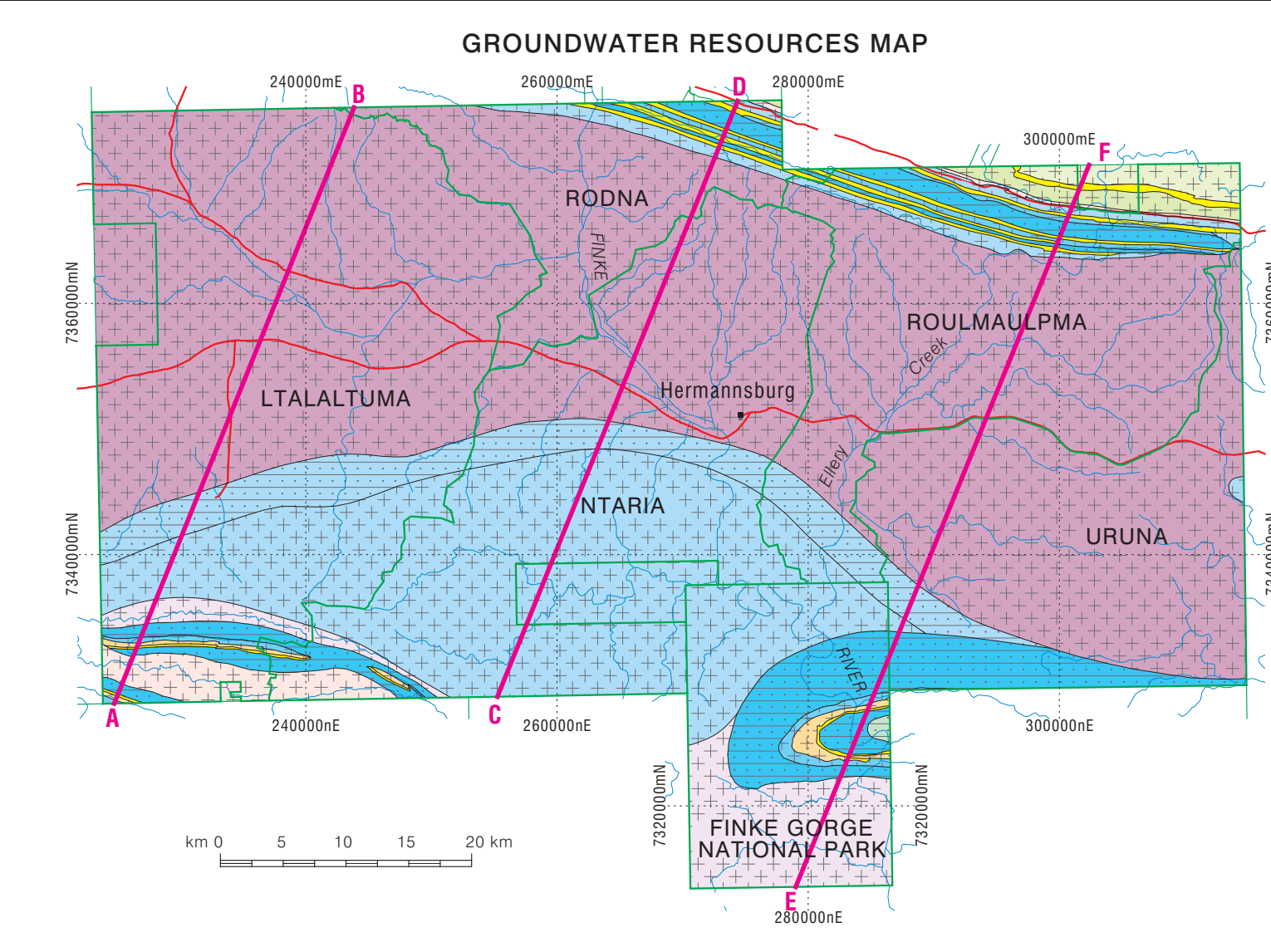
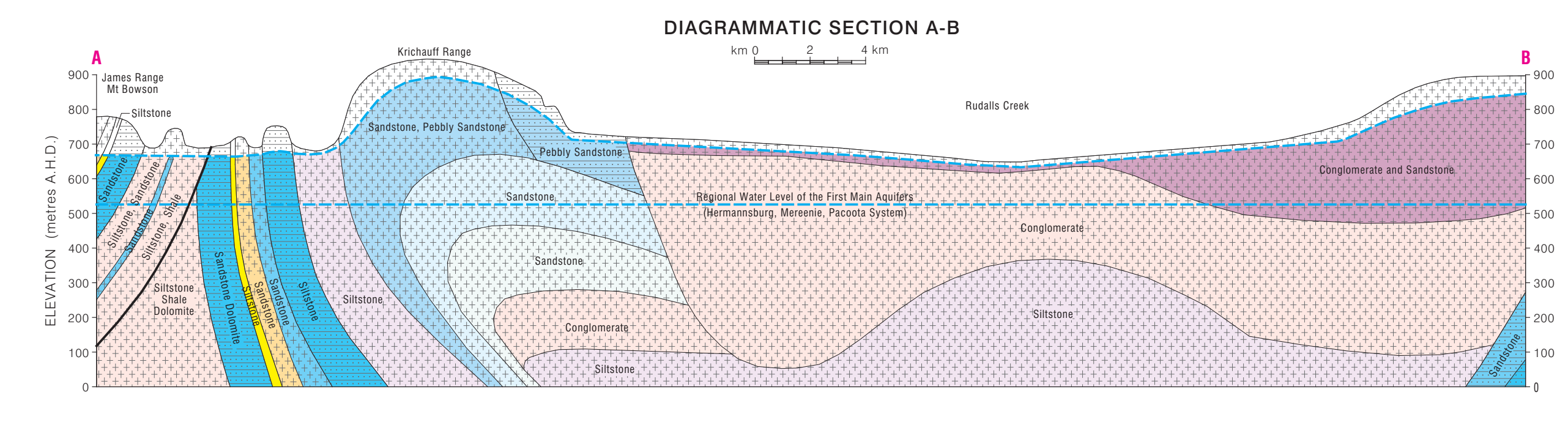
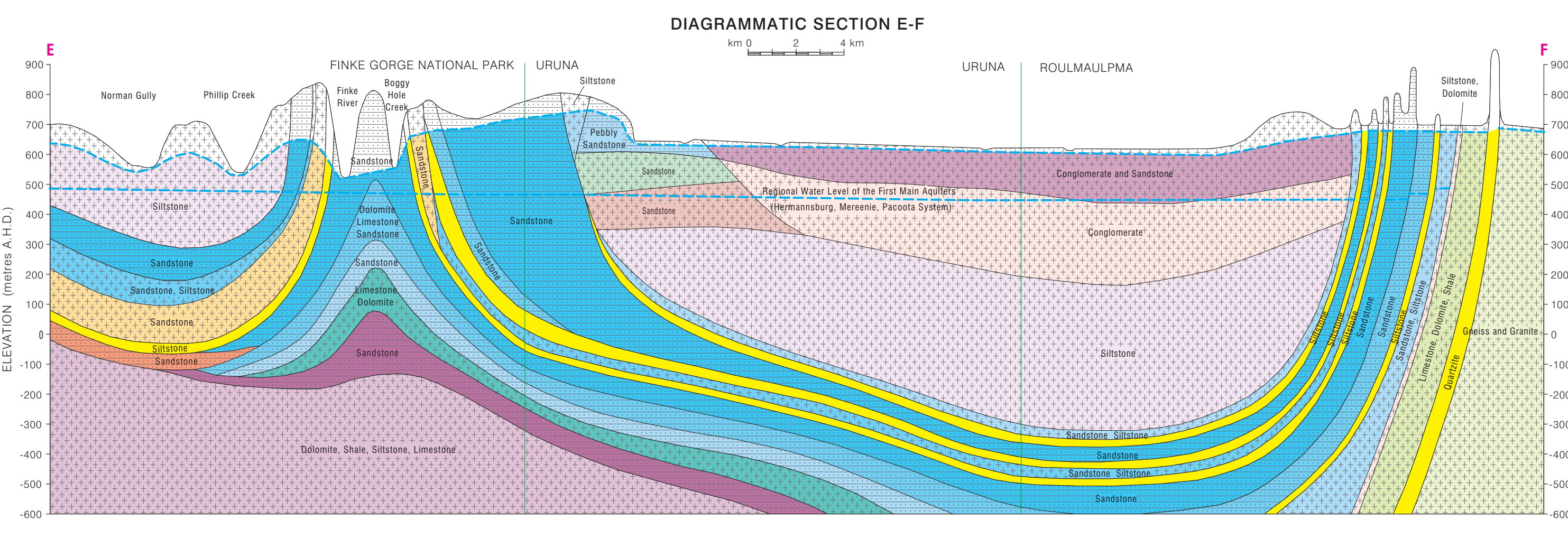
Map compilation by Avis Waigale, GIS Officer, Natural Resources, April 1998.

Second Edition prepared and edited by John Hansen, GIS Officer, Natural Resources, April 2000.

The map has been converted to Geocentric Datum of Australia (GDA94), and Government Department changes updated.

Third Edition prepared and edited by Lynton Fritz, Land and Water Division, NRETA, July 2007.

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FRAGMENTED AND WEATHERED ROCKS - LOCAL AQUIFERS

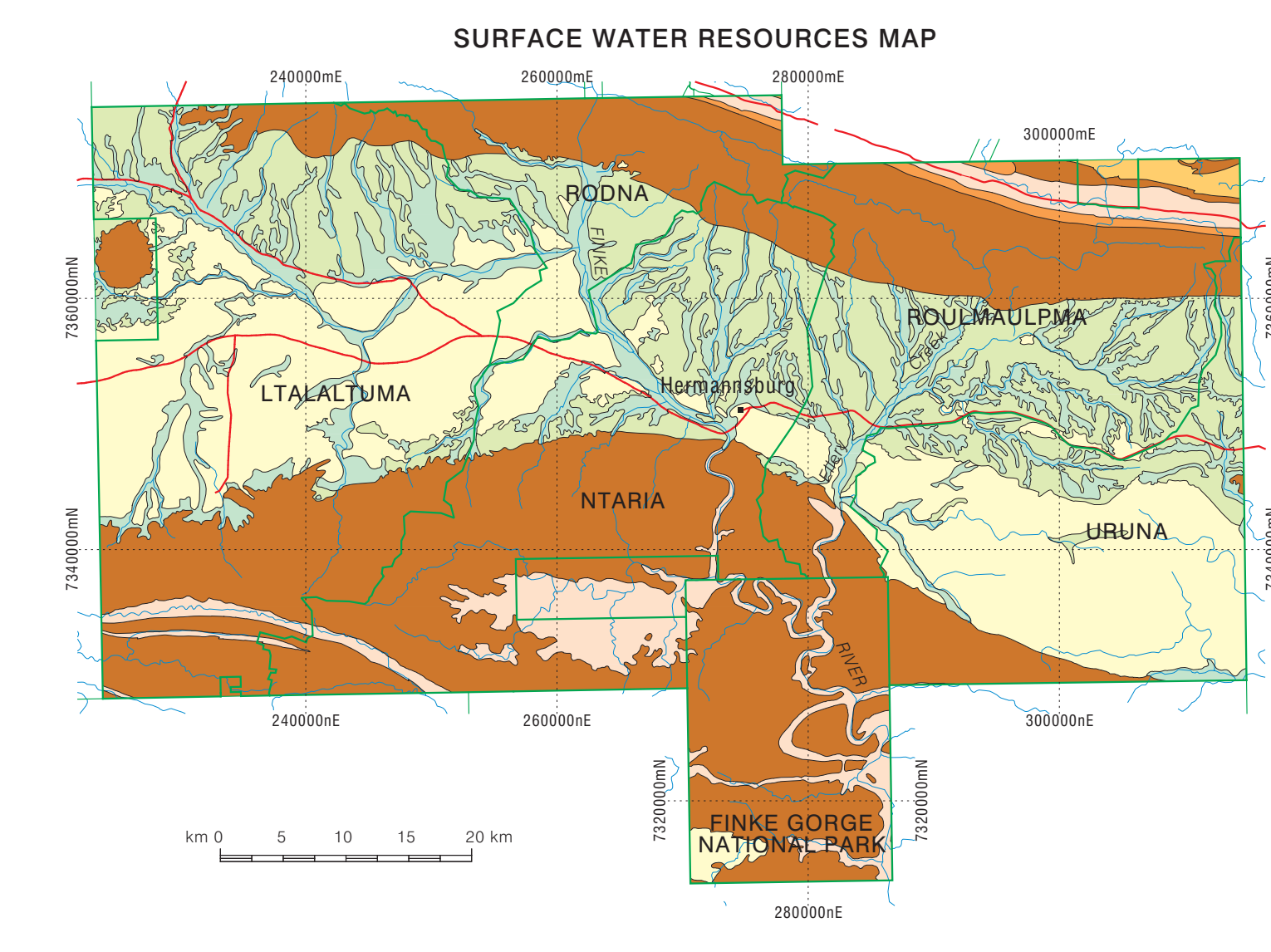
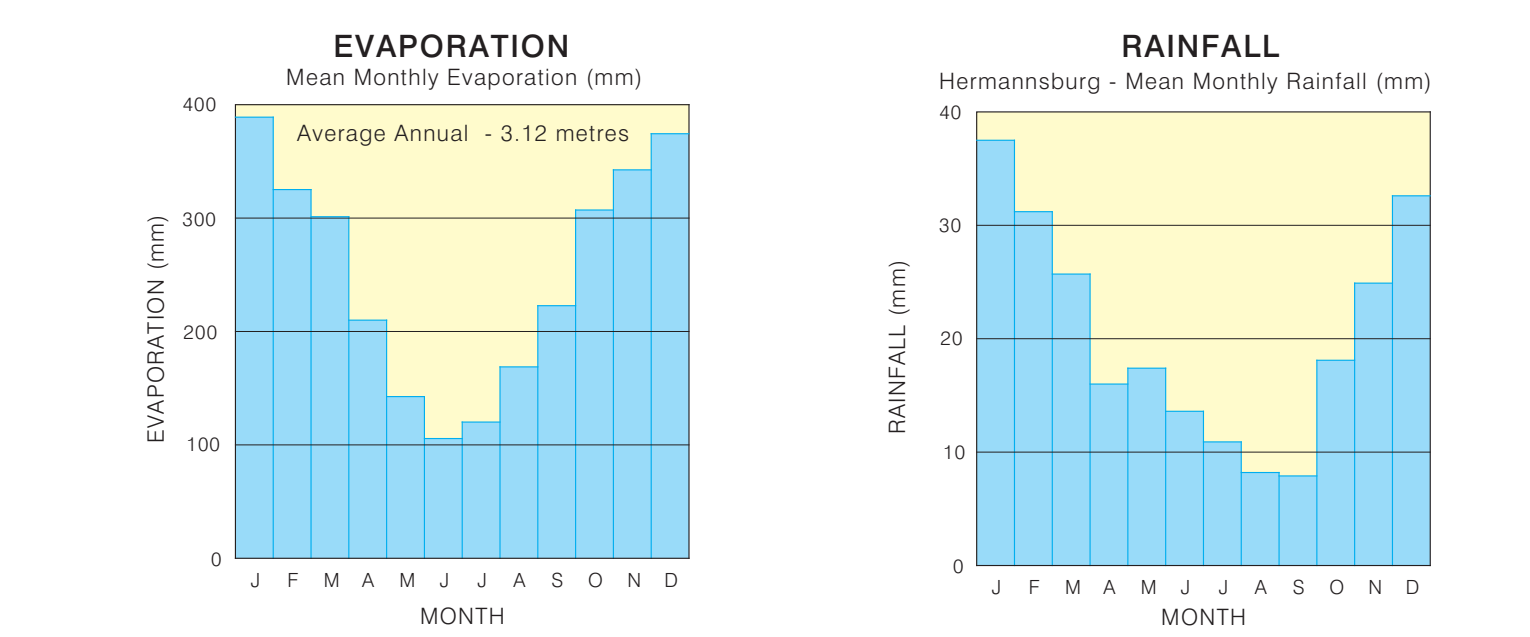
- good to fair quality water yield 2.5 to 5.0 L/s
- good to fair quality water yield 0.5 to 2.5 L/s
- fair to saline quality water yield < 0.5 L/s
- brackish quality water yield 0.5 to 2.5 L/s
- saline quality water yield 2.5 to 5.0 L/s
- saline quality water yield < 0.5 L/s
- fair to saline quality water yield < 0.5 L/s

POROUS AND FRACTURED ROCKS - WIDESPREAD AQUIFERS

- good to fair quality water yield > 5.0 L/s
- good to fair quality water yield 0.5 to 2.5 L/s
- fair to brackish quality water yield 0.5 to 2.5 L/s

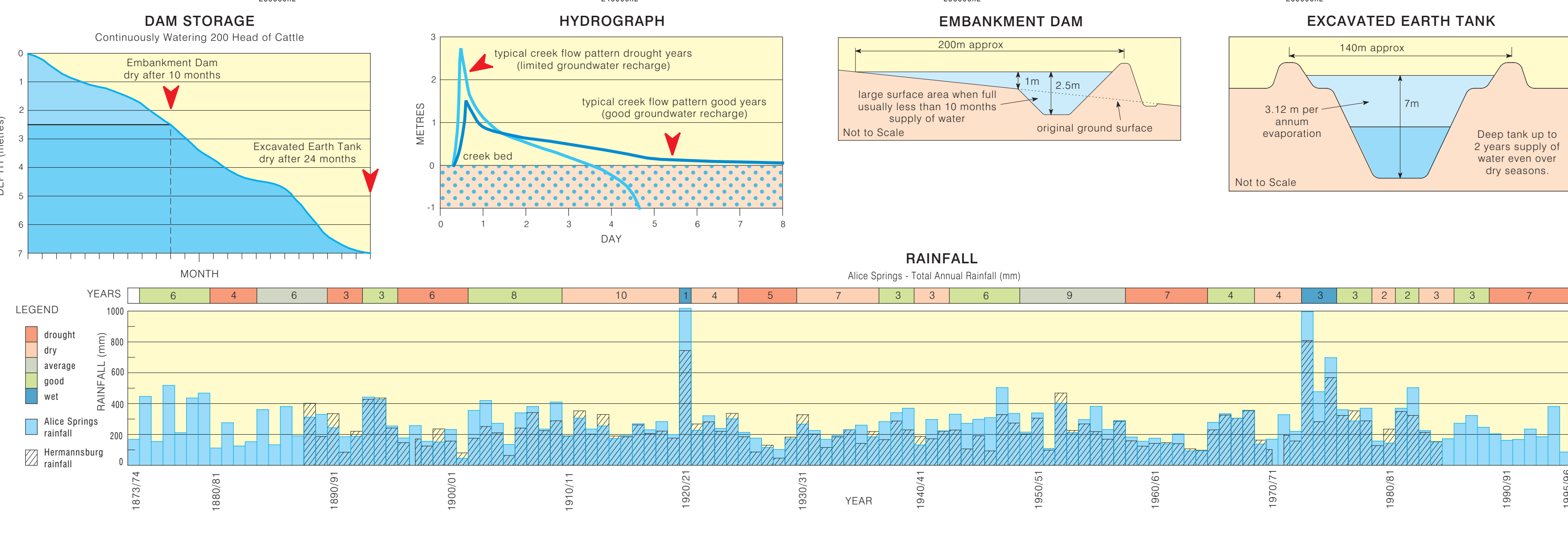
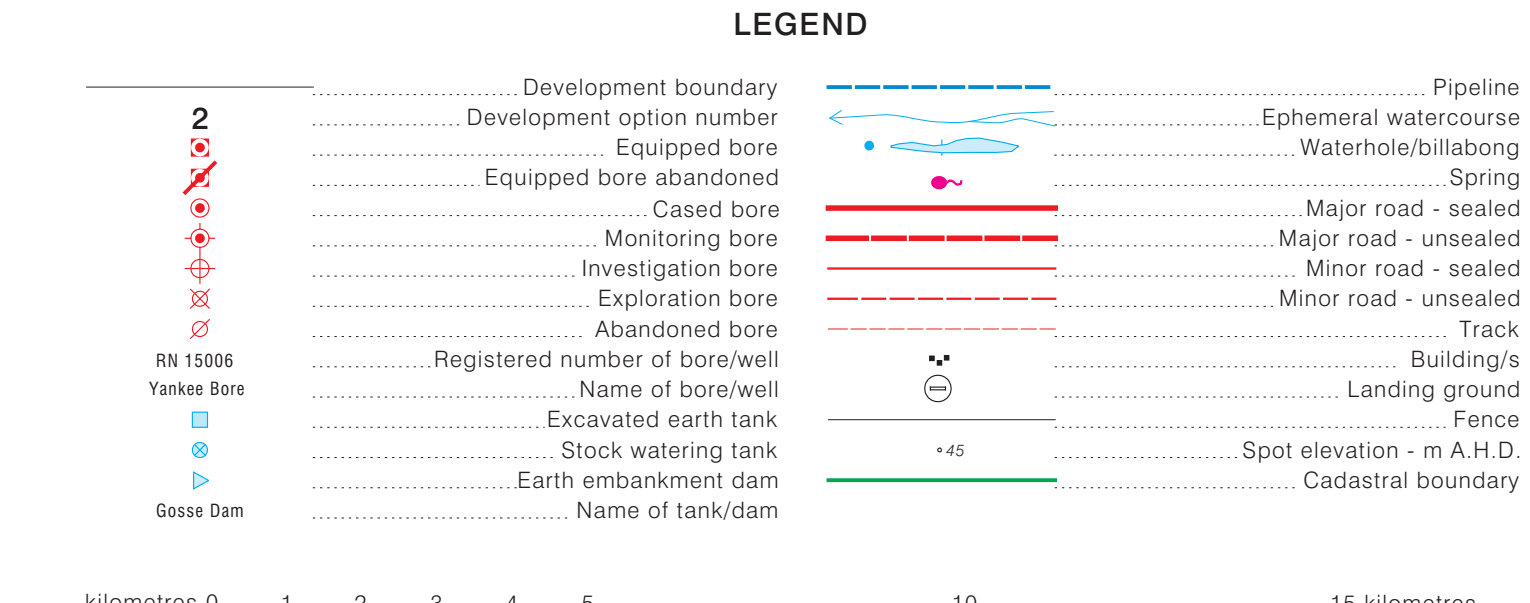
LIMITED OR NO AQUIFERS

- Geological Boundary
- Waterable (cross-section)
- Line of cross-section



DESCRIPTION

- High sandstone and siltstone ridges up to 300 metres, surface runoff high. Generally unsuitable for surface storage development, some opportunities on adjacent valley floors where there is a good depth of soil and weathered rock.
- Sandstone ridges and hills up to 100 metres above the plains, surface runoff moderate. Surface water development unsuitable for surface storage development, some opportunities on adjacent valley floors where there is a good depth of soil and weathered rock.
- Sandstone, siltstone, rocky hill country up to 50 metres above the plains, surface runoff high to moderate. Surface water development generally unsuitable, embankment dam sites available in locations where there is sufficient depth of decomposed rock.
- Valleys between ridges and hills or undulating plains, generally shallow bedrock. Surface water developments unsuitable due to shallow soils or potential leakage problems.
- Alluvial plains. Flat gently undulating plains. Soils are not ideal for surface storage and in some areas quite poor. Excavated earth tanks can be constructed where sufficient runoff and a good depth of soil/weathered rock exists.
- Generally broad undulating siltstone and limestone terrain, soils generally unsuitable to dam construction, but deep excavated earth tanks can be constructed in selected areas.
- Sand dune country, inter-rural runoff, some clay pan, gypsum and calcareous areas, unsuitable for surface storage development, except in selected areas.



WATER RESOURCES DEVELOPMENT OPTIONS

PREFERRED OPTION	DESCRIPTION
1	Unsuitable (bores or dams) High rocky ridge and hill country.
2	Pumping from remote bores or dams. Poor quality groundwater and cavernous formations below surface in many places, not suitable for bores or dams.
3	Pumping from remote bores supplemented by dams. Plains and broad valley floors, plus sand dune country north of the siltstone & sandstone hills and ranges. Excavated earth tanks preferable to embankment dams.
4	Surface water (dams) supplemented by groundwater (bores). Plains and rocky hill country where groundwater supplies brackish. Dam construction in suitable soils where there is a good depth of soil and/or decomposed bedrock preferably 6-7 metres below ground level.
5	Surface water (dams). Plains and rocky hill country where groundwater supplies generally saline. Dam construction in suitable soils where there is a good depth of soil and/or decomposed bedrock preferably 6-7 metres below ground level.
6	Groundwater (bores). On and adjacent to outcrop of Hermannsburg, Meremeie & Paccotta Sandstone Hills and Ranges.
6A	Groundwater (bores). Waterholes and groundwater in alluvium and some of the underlying sedimentary rocks, water quality seasonal, generally fair to brackish but often saline.
7	Deep groundwater available (bores). Within major groundwater basin, good quality water in Hermannsburg, Meremeie & Paccotta Sandstones.

This map was produced on the Geocentric Datum of Australia 1994 (GDA 94).

NATIONAL LANDCARE PROGRAM

Northern Territory Government
Department of Natural Resources, Environment and the Arts

WATER RESOURCES DEVELOPMENT MAP OF LTALALTUMA, NTARIA, RODNA ROULMAULPMA and URUNA
ABORIGINAL LAND TRUSTS (HERMANNSBURG) and FINKE GORGE NATIONAL PARK
THIRD EDITION JULY 2007