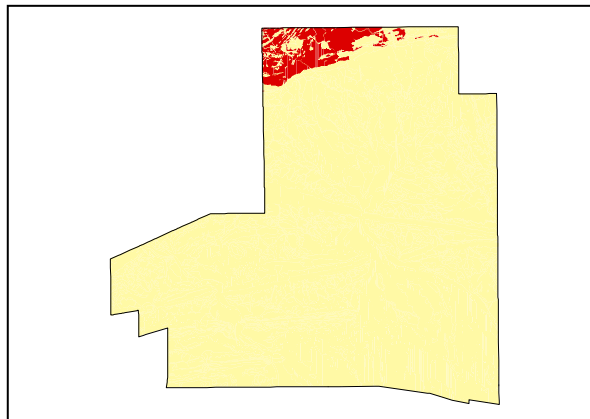


Rises

LAND UNIT 2.12**Charles River Gneiss Rises**

DESCRIPTION: Low rises of Charles River Gneiss with Witchetty Bush and Mulga over sparse annual and perennial grasses.

SITES: 002, 009, 010, 014

**Distribution of land unit.**

Area = 11.45 km², 3.48% of mapped area.

LAND CAPABILITY:

ATTRIBUTES	
SLOPE (%)	15
RELIEF (m)	60
SOIL DEPTH (m)	0.05
SURFACE CONDITION	Loose. trace cryptogram crust
DEPTH TO SUBSTRATE (m)	0.05
REACTION TREND (pH)	7.0
OUTCROP (%)	85
RUNOFF	Rapid
PERMEABILITY	Moderately permeable
DRAINAGE	Well drained
SALINITY (µs/cm)	33.2

DEVELOPMENT RISKS	
EROSION	Slight
ROCK FALL	Slight
SHEET FLOODING	None
INUNDATION	None
SALINITY	None
ALKALINITY	None
ACIDITY	None

CAPABILITY CLASS					
Formed Roads	Shallow excavations	Septic Disposal	Horticulture	Building Foundations	Landscaping
Fair	Very Poor	Very Poor	Very Poor	Good	Poor

Rises

TECHNICAL DETAILS**LAND UNIT 2.12**

DESCRIPTION: Rises of Charles River Gneiss with Witchetty Bush and Mulga over sparse annual and perennial grasses.

GEOLOGY: Early Proterozoic in age. Metamorphic unit of the Arunta Block in the northern part of the municipality and truncated by the east west trending Charles River Fault.

LANDFORM: The Undulating Low Hills of this land unit generally have a lower relief (60m) than the surrounding region with slopes to 15%. The area forms the northern portion of the Todd River catchment and is transected by multiple integrated drainage channels.

SOIL: Example from **Site 009**
MGA. Coords: 7385128mN, 382436mE.

CLASSIFICATION: Lithosol. Rudosol - RU, CY, CZ, AR, H, K, T

SURFACE: 40% 20-60mm coarse subangular tabular gravelly gneiss and 10% 60-200mm subangular tabular gneiss cobbles. Soil formation is broad and shallow on flatter areas and minimal on slopes.

DEPTH (m)	HORIZON	TEXTURE	pH	SALINITY (µs/cm)	OTHER DETAILS
0.00 - 0.05	A1	Clayey sand (CS)	7.0	33.2	Dark brown (7.5YR3/4). 20% 2-6mm fine gravelly angular quartz fragments. 5% 6-20mm medium angular quartz and tabular gneiss fragments. Apedal with single grain incoherent structure.

VEGETATION: **Site 252** (Albrecht, D. and Pitts, B. 1999).

UPPER STRATUM - Absent	
Dominant species	
Other species	
MID STRATUM - Isolated shrubs	
Dominant species	Mulga.
Other species	Witchetty Bush, Silver Cassia.
LOWER STRATUM - Open heath	
Dominant species	
Other species	Dwarf Lantern Flower, Wild Hops, Bogan Flea, Woolly Cloak Fern, Tickweed, Cotton Panic Grass, Tropical Speedwell, <i>Heliotropium sp.</i> (one or both of <i>H.cunninghamii</i> & <i>H.tanythrix</i>), Green Peppergrass, Boggabi, Flat-awned Threawn, Tar Vine & Yipa, Buffel Grass, Rock Fern, Ruby Saltbush, Woollyoat Grass, Mountain Wanderrie, Sticky Indigo, Munyeroo, Large Green Pusstail, Crimson Foxtail, Downy Thread-petal &/or Narrow Thread-petal, <i>Tephrosia supina</i> , Cattle Bush, Cobbler's Pegs, Lemon-scented Grass, Silver Indigo, Birdsville Indigo, Striped Mintbush, Silver Sida, Potato Bush.

(See Appendix 3 for botanical names)