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Groundwater dependent ecosystem pictorial conceptual model 'fractured rocks (rocks with predominantly secondary porosity)'

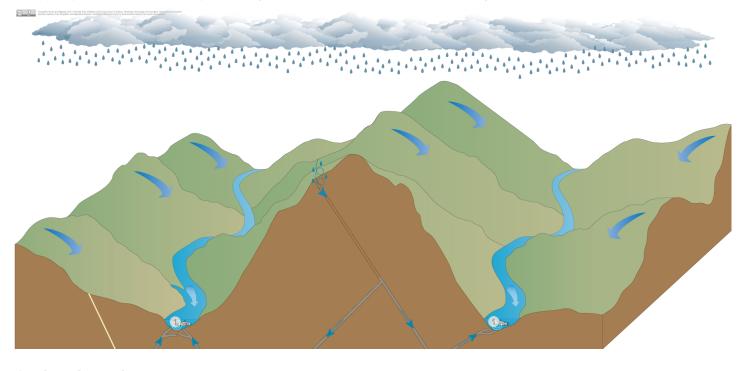
Version 1.5

Fractured rocks (rocks with predominantly secondary porosity)

Fractured rocks store and transmit groundwater through fractures within otherwise low permeability rock.

Fractures, including joints and faults occur where stress exceeds the rock strength causing the rock to split along its weakest plane. Fracturing of rocks often results from tectonic movement of the Earth's crust, which can be at a local or regional scale.

Fractured rock aquifers may discharge groundwater into channels largely in the lower parts of the landscape supporting fauna and flora communities, ecological processes and delivery of ecosystem services. Channels in upper parts of the landscape usually transmit surface water run-off only.



Geology legend



Fracture Stores and transmits groundwater through the void spaces created by fractures in the rock



Groundwater hydrology legend



Low permeability rock (unsaturated)



Low permeability rock (saturated)



Infiltration and percolation

Rain infiltrates through the soil to recharge the aquifer below



Mixing of groundwater and surface water

Direction of groundwater movement Direction of surface water movement in the channel Direction of surface water movement outside of a channel

Fauna legend



Fish

Groundwater dependent ecosystem legend



Surface expression GDEs Lacustrine wetlands, palustrine wetlands and riverine water bodies may depend on the surface expression of groundwater for some or all of their water requirements.

Citation

Queensland Government (2017) *Groundwater dependent ecosystem pictorial conceptual model 'fractured rocks (rocks with predominantly secondary porosity)': version 1.5*, Queensland Government, Brisbane.