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Effect of *Eucalyptus* plantations, geology, and precipitation variability on water resources in upland intermittent catchments

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plantation forestry, land-use change, groundwater, evapotranspiration, intermittent catchments, Australia

Highlights:

- Water balances of pastures and *Eucalyptus* plantations were studied
- Contrasting land use differences had no clear effect on annual streamflow
- Groundwater storage declined in plantation catchments
- Groundwater changes had minimal effect on intermittent streamflow
- Pasture actual evapotranspiration was higher than predicted by global relationships

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Abbreviations: ET_a Actual evapotranspiration, ET_0 Potential evapotranspiration, P precipitation, Q_{sw} streamflow, Q_{gw} groundwater outflow, ΔS_{gw} change in groundwater storage, ΔS_{vz} change in vadose-zone moisture storage, GF Gatum Farm, GP Gatum Plantation, MF Mirranatwa Farm,

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