

# Waterhole threats and condition in the Lake Eyre & Bulloo Rivers

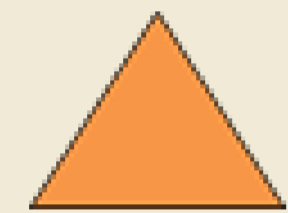
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**Introduction** Threats to waterholes in the Queensland portion of the Lake Eyre and Bulloo catchments of Queensland were identified and prioritised using a desktop and expert review. Broadscale prioritisation was based on a **risk** assessment using likelihoods of threat presence and the perceived consequences if they were present. Monitoring and assessment was undertaken to measure the priority **threats** and **condition**, where possible.

## Feral pigs and cattle



**High Risk**



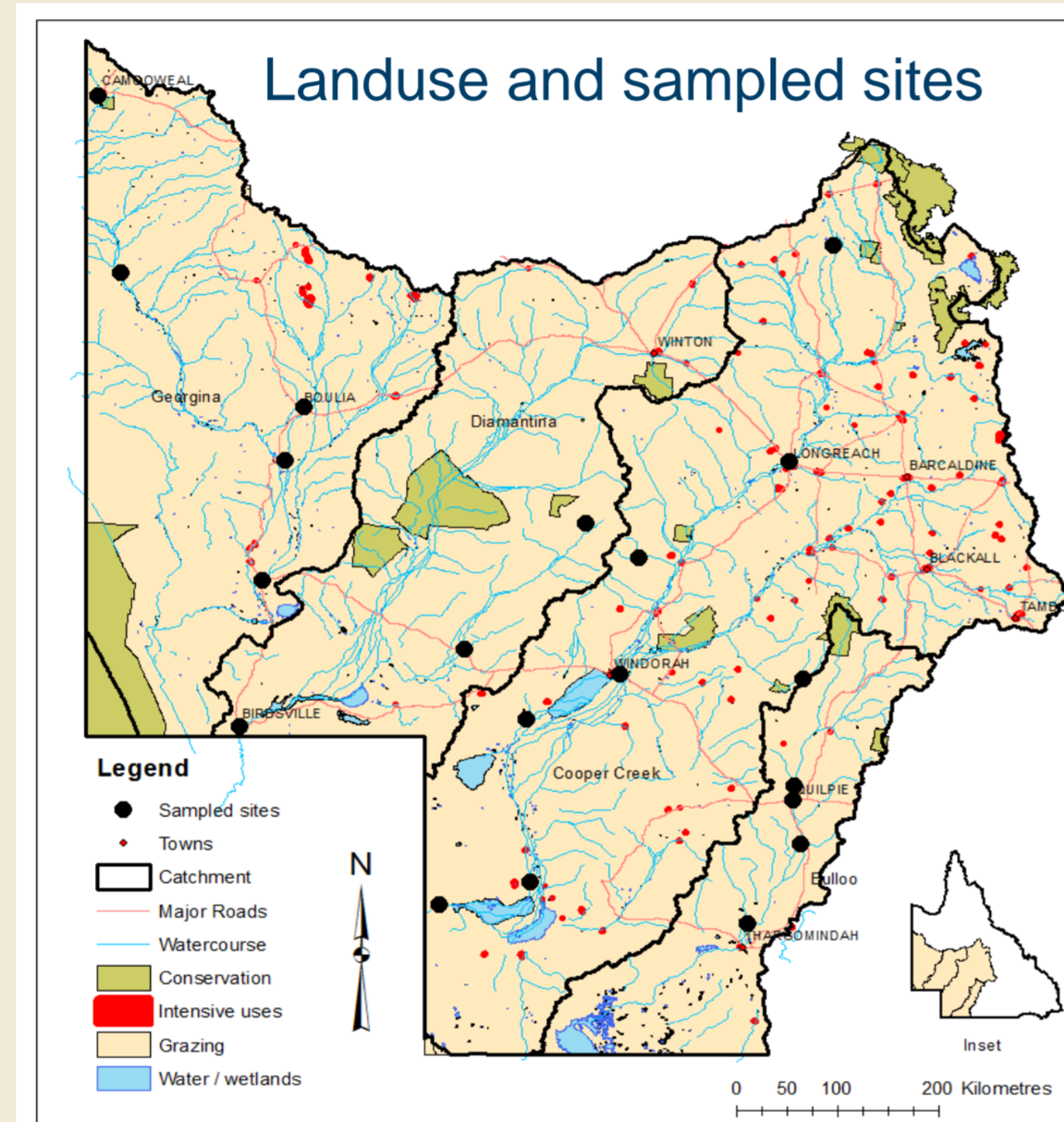
**Moderate Current Threat**

Condition not assessed

Bank and riparian damage was widespread. Lower levels of damage in the Cooper and Bulloo could be due to the presence of more active pig eradication programs.



Feral pigs at waterhole – Lower Cooper Creek



## Risk scores for each threat.

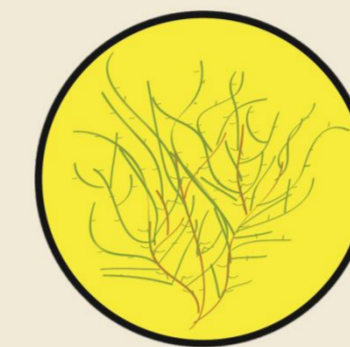
Threat	Risk	Threat	Risk
Introduced riparian fauna	High	Climate change*	Low
Pest aquatic fauna	Moderate	Aquatic weeds*	Low
Riparian weeds	Low	Riparian habitat – connectivity	Low
Riparian disturbance	Low	Acid soil runoff	Low
Deposited sediments*	Low	Suspended Sediments	Low
Flow management - waterhole pumping	Low	Pathogens	Low
Biota removal or disturbance	Low	Salinity	Low
Toxicants – mining	Low	Organic matter	Low
Nutrients	Low	Aquatic habitat - disturbance	Low
Aquatic habitat -connectivity	Low	Thermal alteration	Low

\* low confidence

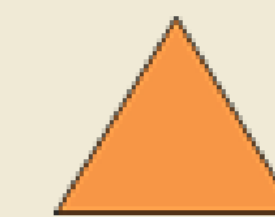
## References

- Clifford, S, Blessing, J, Woods, R & Negus, P 2012, Stream and Estuary Assessment Program Lake Eyre and Bulloo Province Stressor Prioritisation Workshop Report. 29 June 2010 - CSIRO Long Pocket Labs, Queensland. Queensland Government Department of Environment and Resource Management, Brisbane.
- Negus P, Blessing J, Clifford S & Steward A. 2013. Riverine Assessment in Queensland's Lake Eyre and Bulloo catchments: Stream and Estuary Assessment Program 2012. Brisbane: Department of Science, Information Technology, Innovation and the Arts, Queensland Government.

## Riparian weeds



Low Risk



**Moderate Current Threat**

Condition not assessed

Riparian weeds were widespread across the Lake Eyre catchments. Recent rainfall prior to sampling increased the potential for the spread and growth of weeds. In contrast, few sites in the Bulloo had weeds. Level of risk from weeds needs to be reviewed in future assessments.

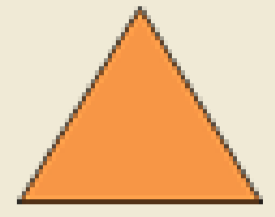


Noogoora burl – Georgina River

## Pest fish and crayfish



Moderate Risk



**Moderate Current Threat**

Slightly disturbed condition

Three aquatic pests were recorded during the surveys: Redclaw crayfish (*Cherax quadricarinatus*), Goldfish (*Carassius auratus*) and Eastern Mosquitofish (*Gambusia holbrooki*). However, more than 75% of individuals were native, indicating an ecosystem still in relatively good condition. No aquatic pests were recorded in the Bulloo.



Redclaw crayfish

**Discussion** Threats are few and of low intensity across the Lake Eyre and Bulloo catchments. Waterholes are the riverine habitats where threats are most likely to occur. Priority threats are related to introduced species. Information gaps include knowledge on likelihood and consequence of several threats. Natural variability makes assessment of condition difficult, resulting in the need for review of condition indicators. Ongoing and targeted management (including monitoring) will contribute to the maintenance of good aquatic ecosystem conditions in the Lake Eyre and Bulloo catchments.

## Contact information

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