



Desert Channels Queensland

Position Paper - Water Management in Desert Channels Region

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Desert Channels Queensland Inc (DCQ) is a community-based organisation working with landholders on the sustainable management of their land and water resources. Our goal is to have thriving communities with productive industries supported by a healthy environment.

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Draft – under development

Water Management in Desert Channels Region

The issues

- Desert Channels, as the name suggests is a hot, low rainfall region of primarily extensive grazing and few towns; water supply is from surface water and bores.
- The region relies on seasonal rainfall (most often over only 2 or 3 months) for pasture growth, beneficial stream flows and replenishment of natural and man-made surface water storages. It is recognised that natural flows, particularly with minimal change to event peaks, maximise benefits of the water.
- Much of the reliable water for the region is in impounded storages on major watercourses, shallow groundwater or groundwater from the Great Artesian Basin complex of aquifers. Less reliable water supplies come from fractured rock aquifers and shallow storages on secondary and minor tributaries. Extraction of water from artesian bores has negatively impacted water supply to springs, causing loss of habitat and localised extinction of groundwater dependent ecosystems.
- Spring complexes are under threat from loss of water supply, pest animals and plants and uncontrolled access by domestic stock.
- Landholders and local governments, some with the assistance of state and federal government funding, have made good progress to cap flowing bores and pipe stock water to replace open bore drains.
- Water distribution techniques used in the region, particularly poorly maintained bore drains and diversion of overland flow, have contributed to the spread of pest plants and animals, as well as negative impacts on riparian and groundwater dependent ecosystems. Pest animals have also increased through uncontrolled access to water supplies.
- Land condition of native pastures and riparian habitat has declined in recent years, impacting on rivers and wetlands, particularly through increased inflow of sediment and nutrients, with the former reducing waterhole persistence.
- The thickening of pest plants, along with poor grazing management has led to a decline in the condition of grasslands and woodlands, which has contributed to reduced water quality and persistence of waterholes.
- A common practice has been to water stock directly from creek, river or dams, allowing stock to urinate and defecate in the same water they drink. This reduces stock health as well as impacting on water quality and erosion. In recent years many landholders have taken steps to improve water management through piping and trough arrangements. There is still much work to be done.
- Finding 'new' water sources is rare but in recent years can include reuse of waste water, particularly from towns, and the recovery of co-produced or waste water from emerging industries, particularly Coal Seam Gas. The water quality can vary and these water sources have significant risks.
- Natural flows and flooding provide valuable riparian and floodplain habitat for a range of species with waterholes providing dry season refugia. Maintenance of water quality, waterhole persistence and riparian and floodplain habitat is critical to

watercourse health. Key threats are changes in flow patterns, changes in silt load and overall water quality and grazing pressure.

- Pest animals, all of which have been introduced are now well established in aquatic systems. The control of many of these species is challenging, and monitoring is underway to better understand the impacts on native species and ecosystems.
- Development of infrastructure, particularly on floodplains, poses a particular risk to low flow patterns with consequent impacts on habitat.
- Historically, bore water was seen as plentiful, and flowing bores, open bore drains and dams have been used as efficient or easy means of watering stock.
- Although water is often scarce, there has been a reluctance to meter or measure all water users and uses to enable improved water management and efficiency efforts.
- Outside of the State of the Rivers Monitoring, the monitoring of water quality, riparian conditions and waterhole persistence is sporadic and disjointed, and often lacks public reporting.
- On farm domestic water use is managed by the landholder and is not subject to quality control or health standards.
- Agricultural runoff has impacted on rivers and wetland through increased inflow of sediment and nutrients.
- Water resource planning for the regional river and groundwater systems is in place and establishes the mechanism for access to current and emergent supplies. Water is available for new industry development from surface water on the Diamantina and Georgina, however not the Cooper/Thomson system unless through trades. Water is available from most of the regional groundwater management units.
- Reliability of surface water is difficult given the transient, boom and bust nature of the surface water follows in our rivers, the competition for water and the historical uses of water.

Position statements

DCQ **supports** policies, programs and on farm management practice changes that improve rangeland condition (particularly increased ground cover), landholder skills and knowledge about the management of the natural systems, and riparian vegetation health, along with maintaining waterhole persistence.

DCQ **recognises** that profitable business enterprises utilising the natural resources of the region have greater capacity to invest in the management of natural resources.

DCQ **recognises** the potential cumulative impact of activities on natural systems and resources and therefore supports regional, catchment and management area-based assessments, rather than assessment of applications in isolation.

DCQ **supports** third party objections to major applications so that community concerns can be articulated and considered in the assessment of applications to use, along with potential impacts on the region's natural resources.

DCQ **does not support** policies, programs or on farm management practices that introduce new non-endemic species into the region.

DCQ **supports** the proactive implementation of the Water Resource Plan for the GAB as well as the GAB Strategic Plan, in particular the move to cap bores, pipe bore water and rehabilitate bore drains, above all, where programs can integrate with other natural resource or agriculture programs to improve overall farm and stock route management.

DCQ **supports** making the GAB 'water tight' – that is, that all bores should be capped and piped.

DCQ **supports** the allocation of saved water from the GAB aquifers to support and expand current and emerging industries as long as groundwater dependent ecosystems are not adversely impacted or impacts cannot be mitigated.

DCQ **supports** the Water Resource Plan for the DCQ river systems Cooper, Georgina and Diamantina.

DCQ **supports** programs that will assist landholders move to cap bores, pipe bore water and rehabilitate bore drains, particularly where programs can integrate with other natural resource or agriculture programs to improve overall farm and stock route management.

DCQ **supports** landholders moving to control stock or feral animal access to all artificial water sources (e.g. dams, ring tanks, bore drains) to better control stock water, reduce feral animal impacts and more closely mimic the nature landscape functions.

DCQ **supports** a region-wide water quality and river health monitoring system that gathers data from all sources, ensures real time, public access to monitoring information and sees the monitoring results used to inform policies and programs of governments and industry. Key indicators for monitoring are water quality, waterhole persistence and presence and abundance of key indicator species.

DCQ **does not support** discharge of water from towns or industry that does not meet applicable water quality guidelines, and any discharge into the natural systems should mimic natural flows.

DCQ **supports** the voluntary metering of bores so actual water use is measured to monitor areas of high extraction other than for stock and domestic.

DCQ **supports** off stream watering of stock through both fencing riverine areas and pumping water to tanks and troughs and through strategic location of this infrastructure at a distance away from riverine areas to reduce grazing pressure on riverine and creek areas.

DCQ **does not support** the construction of access and water extraction points from natural waterholes that has a detrimentally effect on natural habitat (excluding stock and domestic).

DCQ **does not support** the development of infrastructure on floodplains that will be a barrier to, or divert, overland flows, with the exception of stock watering facilities.

DCQ **does not support** any activities that intersect or poses a risk to any underground water asset.

DCQ **supports** the beneficial reuse of recovered water, but only with the following caveats:

- That co-produced, associated or recovered water is treated to the quality of background receiving water and that discharge events compliment or mirror natural flows.
- That water is comprehensively tested and treated if necessary, to ensure there is no contamination risk to agriculture or the environment.
- That groundwater-dependent ecosystems are not negatively affected.
- That any irrigation development based on temporary water sources is for annual or temporary allocations.
- That complimentary uses of recovered water do not introduce unmitigated additional biosecurity risks.
- That the cumulative impact on ground water resources of any proposed development activities is fully assessed prior to development approval.

Recommendations

- That DCQ write to local and State Government informing them of this policy.
- That DCQ write to key organisations including APPEA, RAPAD, SWRED, Qld Conservation Council, WWF, Agforce and Queensland Farmers Federation informing them of the policy and seeking to work with them to pursue the implementation of the policy.
- DCQ seeks resources to conduct projects that implement the policy statement
- DCQ takes every opportunity to make submissions on water related issues before State Parliament stating the relevant aspects of this policy.
- DCQ will ensure any funding or incentives delivered by DCQ to the community complies with this policy.

Actions

DCQ will advocate for these policy statements with local, State and Federal governments.

DCQ will develop investment strategies and project proposals, and proactively seek resources that support these policy statements.

References

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DNRME, 2018. Water Monitoring Information Portal. Department of Natural Resources, Mines and Energy, Queensland Government viewed at <https://water-monitoring.information.qld.gov.au/>.

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Australia provides critical habitat for millions of migratory birds each year.

To ensure their conservation the Australian Government has fostered international cooperation through a range of important agreements, including bilateral migratory bird agreements with Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA), the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), the Ramsar Convention on Wetlands, the Agreement on the Conservation of Albatrosses and Petrels (ACAP), and through the East Asian - Australasian Flyway Partnership.

A range of important activities are also undertaken within Australia to conserve migratory bird populations and their habitats. These activities have largely focused on waterbirds, mostly shorebirds and seabirds; because their tendency to aggregate in flocks in coastal areas makes them particularly vulnerable to disturbance and predation.

<http://www.environment.gov.au/biodiversity/migratory-species/migratory-birds>

Relevant Water Plans for DCQ;

<https://www.business.qld.gov.au/industries/mining-energy-water/water/catchments-planning>

<https://www.business.qld.gov.au/industries/mining-energy-water/water/catchments-planning/water-plan-areas/cooper-creek>

<https://www.business.qld.gov.au/industries/mining-energy-water/water/catchments-planning/water-plan-areas/georgina-diamantina>

<https://www.business.qld.gov.au/industries/mining-energy-water/water/catchments-planning/water-plan-areas/great-artesian-basin/water-plan>