



Queensland Murray-Darling Committee Inc.'s Submission on the *Draft National Wildlife Corridors Plan March 2012*

27 April 2012

Submission to:

Director

Conservation Incentives and Design Section

Department of Sustainability, Environment, Water, Population and Communities

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This submission is presented by the Chief Executive Officer, Geoff Penton, on behalf of the Queensland Murray-Darling Committee Inc. (QMDC). QMDC is a regional natural resource management (NRM) group that supports communities in the Queensland Murray-Darling Basin (QMDB) to sustainably manage their natural resources.

1.0 Background

QMDC has made submissions and deputations to both the Australian and Queensland Governments seeking improvement to legislation, policies, and planning in order to prevent adverse impacts to the extent, value and function of the region's biodiversity through further fragmentation. QMDC sought action from the government to ensure that:

- Priority landscape scale ecosystems are maintained or improved.
- Natural assets including native vegetation are managed or conserved to maintain ecological processes and ecosystem linkages, and increased in extent and abundance at priority catchment scales.
- Areas of identified high nature conservation significance are maintained in current condition and improved against the Common Nature Conservation Classification System.
- Decline in populations of 'at risk' flora and fauna species are halted.
- The biodiversity condition and ecological health of native flora and fauna in priority catchments are maintained or improved.



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2.0 General comments

QMDC, overall, supports the aspirations of the Draft National Wildlife Corridors Plan (the Plan). We are pleased to see, there is recognition of the role that NRM organisations can play in rolling out the Plan and that the Plan promotes specific regional information, expertise and a process of regional management. Local and regional input to the Plan will better inform ecosystem vulnerability and innovative management options for conservation. QMDC offers the following specific comments in relation to the Plan and its implementation in the QMDB region and the biodiversity aspirations and targets described in this region's NRM Plan.

3.0 Connectivity between ecosystems and across landscapes that may contribute to biodiversity conservation

- 3.1 QMDC supports strategies and actions which maintain or improve priority landscape scale regional ecosystem connectivity so that ecological processes and ecosystem linkages are increased in extent and abundance at priority catchment scales.
- 3.2 Fragmentation has been identified in a number of studies as a critical factor in biodiversity decline within the Brigalow Belt. In QMDC's opinion the Plan must therefore address the need to protect the Brigalow Belt within the QMDB as part of the identified priority areas. The long term conservation of biodiversity and the wellbeing of the region's ecosystems depend upon the protection of the Brigalow Belt as a natural asset. The Brigalow Belt is EPBC listed and it is one of Australia's 15 National Biodiversity Hotspots. QMDC is therefore surprised and disappointed that such iconic plant communities are not included as a priority in the development of the Plan.
- 3.3 Particular nationally significant corridors will become more important as regional climate shifts limit the extent for species existence. Identification of key areas where corridors are needed in the QMDB is likely to include mid-latitudes where tropical meets sub-tropical and sub-tropical meets temperate. QMDC asserts that the identification of these areas should inform priority investment with the aim of increasing regional knowledge and advancing conservation strategies that will aid the protection or restoration of ecosystems that are both regionally and nationally important.
- 3.4 QMDC has previously undertaken "*Climate witness projects*" which involved interviewing landholders and obtaining their long term observations on climate change patterns or variability. These observations were compared to related weather statistics and information to ascertain whether any long term trends were emerging. Results from this comparative analysis indicated there was a reduction in the number of frosts in the Granite Belt region. Although the initial research was focused on agriculture it triggered a warning signal that the area's biodiversity may be under serious threat because of the changing climate.

In response QMDC commissioned Paul Donatui to conduct climate refugia research in the New England Tableland. The New England Tableland (NET) bioregion comprises the Queensland sections of the New Stanthorpe Plateau and Tenterfield Plateau and Nandewar subregions. The NET is considered "botanically significant due to its high plant species diversity and high level of endemism".

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The NET region is characterised by numerous landscape features which are believed “to act as climate refuges for some rare and threatened species, endemic species and ecosystems”. The report states that “the interaction between a complex topography, geology, altitude and the pronounced moisture gradient from southeast to northwest has resulted in a wide diversity of habitats”.

- 3.5 QMDC’s next most vulnerable community is semi evergreen vine thickets (EPBC listed community). These thickets are historical remnants of rain forests that have been resilient, surviving the continent drying up throughout the last several thousand years. If climate change trends accelerate it could put these vines at increased risk.
- 3.6 QMDC asserts that the Plan has not identified important areas in the QMDB which need to be considered as part of its prioritising for the establishment of corridors. Prior to deciding on where these corridors are to be established there needs to be more thorough research to address regional information gaps – particularly fauna surveys. QMDC has found that this sort of valuable information is often unavailable to help inform key stakeholders (such as NRM managers, landholders, proponents of development, scientists, planners, regulators/decision makers etc.)
- 3.7 QMDC is concerned by the voluntary participation in the plan. Further clarification is needed with regards to how the Plan will be implemented. For example, when landholders withdraw their consent to be involved in the ongoing maintenance of a corridor after it is ‘implemented’ or if there is a change in ownership on a property affected by a corridor and the new owners do not give their commitment to a corridor established/ or utilising that property. QMDC believes there needs to be a component in the Plan to ensure priority areas remain ‘locked up’ as wildlife corridor area such as an amendment to the EPBC Act to give the Plan more mandatory powers.
- 4.0 The impact of CSG and coal mining in the QMDB**
- 4.1 QMDC argues that overall the studies used by proponents for development through the Environment Impact Statement and Environmental Authority processes (EPBC and EPA Acts) do not demonstrate adequate scientific understanding of the importance of remnant vegetation and preventing further fragmentation or destruction of ecosystem corridors in the QMDB.
- 4.2 QMDC is concerned that there are many EAs that permit CSG and coal companies to destroy habitat before equivalent habitat has been restored thereby increasing the risk of species extinction. Additionally, species that need time to colonise a restored habitat are not given a real opportunity to do so, and too frequent a turnover of habitat may be also increasing the risk of species extinction in the QMDB.
- 4.3 QMDC believes that the *Terrestrial (and aquatic) ecological environmental plans* (EEPs) produced by proponents of development are not demonstrating an understanding that modification or destruction of ecological processes are, in practice, often irreversible and an ecosystem will not necessarily rehabilitate to its prior function.

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- 4.4 QMDC supports attempts by the Plan to halt the decline in populations of 'at risk' flora and fauna species at a catchment and regional scale. The Plan however must challenge the assumption (a common practice by proponents) that fauna, if found where vegetation is to be cleared in accordance with an EA, can be removed to another ecosystem, or that birds will simply fly away to somewhere else if disturbed by lighting, noise or dust.
- 4.5 QMDC asserts that the Plan needs more teeth making it mandatory for decision makers/regulators to ensure that all proposed developments respond adequately through EEPs or other mechanisms to the complexities in the ways in which threats affect ecological processes and regional ecosystems. For example proponents of development need to address the following issues:
- Impacts may occur far from the location of the initial threat or disturbance (particular hundreds of kilometres upstream of Ramsar sites).
 - Threats that affect one species may have cascading effects on other species.
 - Environmental responses to a threat are not necessarily directly proportional to the level of threat (ie a linear response). Non-linear responses mean there are critical thresholds where small increments of change can result in dramatic shifts in the state of the system.
 - There is often a time delay, from days to decades, between alteration to an ecological process and its full effects on biodiversity.
 - Threats may have a combined impact greater than their independent effects.
 - Complexities in interrelationships among species and chance environmental variation may mean that often there will be uncertainty about the effects of a particular threat on processes.
- 4.6 QMDC recognizes the value of the terrestrial and aquatic ecology studies that may have already been conducted in proposed development areas. QMDC believes however that further studies are required to ascertain which processes have the greatest influence in a project development area, their role, the spatial extent over which they operate, the kinds of threats that are limiting their function. This will assist the EEPs and other planning mechanisms to direct their management strategies where they will have the greatest impact and therefore compliment a National Wildlife Corridors Plan.
- 4.7 QMDC argues that the *EPBC Act* species listing categories should suggest that a higher level of protection and or a higher offset requirement should be in place and supported by a National Wildlife Corridors Plan.

Protection mechanisms in the QMDB region within the National Wildlife Corridors Plan could include:

- Protecting floodplains adjacent to river channels to maintain lateral hydrological connectivity and the ecological benefits of periodic flooding.

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- Maintaining continuous vegetation along elevational gradients to enhance opportunities for altitudinal migration or range shifts in a changing climate.
- Protecting key wetlands along the migration paths of waterbirds as critical stops for refuelling.
- Maintaining riparian vegetation to promote interactions between terrestrial and freshwater systems.
- Protecting “keystone” species and communities within small ephemeral streams and wetlands to aid the re-establishment of ecological process in restoration.

5.0 Recommendations

5.1 That the National Wildlife Corridors Plan be supported by regulation and legislative mechanisms making it mandatory that:

- **no development will be permitted to impact on high-conservation areas**
- **land is allocated by a development for habitat connectivity to allow species to move as climate zones change**
- **no development be approved until a detailed site investigation is carried out and an official map modification is approved as per the Queensland Herbarium process giving accurate details of the regional ecosystem and its biodiversity and landscape types that could contribute to the establishment of a strategic corridor**
- **a development identifies the processes that are most important in sustaining the regional ecosystems or species in their development areas**
- **a development establishes a long term monitoring programme to measure environmental change and generate information on:**
 - i. The direction and magnitude of change (taking into account natural fluctuation)**
 - ii. The rate of change**
 - iii. The pattern of the change response**

5.2 That the New England Tableland be considered for a case study as a nationally important ecosystem.

5.3 That semi evergreen vine thickets and their habitats be considered for a case study as a nationally important ecosystem.

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