



30 June 2026

Dear Fitzroy-Derby Water Resources Management Plan Team,

Thank you for the opportunity to provide feedback on the draft **Fitzroy-Derby Water Resources Management Plan: Policy and Guidance**.

I would firstly like to commend the Department on the direction of the draft Plan. The Vision represents an important shift toward a more holistic understanding of water management, recognising that water is fundamental to people, culture, Country, ecosystems and sustainable economic opportunity. The commitment to collaboration with Traditional Owners, protection of the free-flowing Martuwarra Fitzroy River, and long-term regional resilience provides an excellent foundation for future management.

I am particularly supportive of the proposed Advisory Group. I believe this represents one of the most significant opportunities within the Plan and has the potential to become much more than a consultation mechanism. With appropriate design, it could form the foundation of a long-term collaborative catchment stewardship framework for the Fitzroy.

From water management to catchment stewardship

The draft Plan recognises that sustainable water management cannot be achieved through regulation or allocation decisions alone. I strongly agree with this direction.

The remaining challenge is not simply one of hydrology or hydrogeology, but of governance, capability, economics and collaboration.

The Fitzroy catchment is a highly complex socio-ecological system. Significant uncertainty will always exist regarding groundwater systems, surface water interactions, ecological thresholds and future climate change. We should therefore recognise that perfect knowledge is unlikely to ever exist.

Rather than attempting to eliminate uncertainty before decisions are made, the management framework should embrace adaptive management based upon transparent monitoring, shared learning and collaborative decision-making.

In other words, water planning should evolve into **catchment stewardship**. Healthy catchments emerge when both the natural and human systems function well together.

The natural system includes healthy soils, functioning vegetation, resilient hydrological processes and biodiversity. These ecosystem processes underpin groundwater recharge, water quality, drought resilience and ecological integrity.

Equally important is the human system comprising governance, incentives, monitoring, learning, capability and trusted collaboration. These ultimately determine how landscapes are managed and therefore how effectively natural processes are maintained or restored.

Long-term water security depends upon both systems functioning together.



The Advisory Group as collaborative catchment governance

The proposed Advisory Group presents an opportunity to establish the foundations of a genuine collaborative governance model for the Fitzroy catchment.

Rather than functioning solely as an advisory body on groundwater allocation, it could provide an enduring forum where Traditional Owners, government agencies, industry, pastoralists, researchers and the broader community work together to understand, monitor and manage the catchment as a whole.

To be successful, such a group should promote:

- trusted and respectful relationships between stakeholders;
- independent coordination and facilitation;
- transparent sharing of monitoring data and analysis;
- clear accountability and communication;
- collaborative learning, including sharing lessons and mistakes; and
- shared ownership of uncertainty and risk.

Complex catchments require trust as much as technical expertise. Effective governance therefore becomes one of the most important determinants of long-term success.

Building regional capability

One of the major barriers to implementing the Plan is not willingness, but capability.

As discussed during the Broome community consultation, there remain significant gaps in regional capacity.

Traditional Owners are increasingly asked to provide advice regarding ecohydrological impacts despite limited long-term regional datasets and often limited access to technical support.

Likewise, proponents frequently face considerable challenges obtaining sufficient data to model potential impacts with confidence or effectively communicate uncertainties.

Government agencies themselves also face resourcing constraints in maintaining monitoring networks, integrating datasets and supporting adaptive management across such a vast and dynamic landscape.

These are systemic challenges rather than shortcomings of individual organisations.

Addressing these gaps should therefore become a key objective of implementation.



Adaptive monitoring through partnerships

The uncertainties surrounding groundwater and ecological responses reinforce the need for adaptive monitoring rather than relying solely upon prediction.

The Plan provides an opportunity to establish regional partnerships that expand both monitoring capacity and shared understanding.

Examples could include:

- expanding groundwater monitoring through partnerships with Traditional Owner Ranger groups, pastoralists, industry and local contractors;
- developing consistent regional ecological and hydrological indicators;
- transparent public reporting of monitoring outcomes;
- annual or biannual collaborative review workshops; and
- independent synthesis and facilitation of monitoring results.

Successful examples already exist within the Kimberley, including the Dampier Peninsula Fire Working Group and the collaborative approach previously developed through FitzCAM. These demonstrate that long-term relationships and shared learning can successfully bring together diverse knowledge systems and management perspectives.

Despite significant and known water policy issues around data sharing, integrated and collaborative catchment monitoring could potentially be supported through the SEAF platform by WABSI, helping maintain transparency and trust across all stakeholders.

Looking beyond water extraction

An important opportunity exists for the Plan to broaden its focus beyond water extraction alone. Long-term water security depends not only on how much water is allocated, but also on the health of the catchments that capture, store and regulate water.

Long-term water security depends not only upon how much water is removed, but also upon the ability of the landscapes to intercept, infiltrate, store in the landscape and recharge aquifers – defined as landscape function. Importantly from CSIRO assessments, it is the persistence of water in the landscape that governs recharge in our northwest, rather than total rainfall or flow which many long term land managers inherently know. Landscape function is driven by healthy vegetation, which supports healthy soils and stable, functional landforms such as connected floodplains. This governs infiltration, groundwater recharge, water quality and resilience to both drought and flooding. Consequently, landscape regeneration should be recognised as an important complementary component of long-term water security.

Across northern Australia, landscape function is already being restored through regenerative grazing, Traditional fire management, erosion control, landscape rehydration and improved land stewardship. In the Kimberley, organisations such as the West



Kimberley Land Conservation District Committee, pastoral businesses and Traditional Owner groups are demonstrating what is possible when local knowledge is supported.

Despite these successes, investment remains fragmented. We have many examples of landscape restoration, but limited catchment-scale governance and few incentives that reward cumulative improvements in landscape condition.

Recognising landscape restoration as an integral component of water planning would strengthen the Plan's long-term objectives. Investments in landscape function are investments in natural infrastructure that underpin water security, regional productivity, biodiversity and community resilience.

Economics, resilience and investing in natural capital

Perhaps the greatest barrier to catchment stewardship is not technical knowledge, but economics.

Many of the benefits generated through improved land stewardship—including groundwater recharge, reduced erosion, improved water quality, biodiversity and cultural values—are public benefits that are rarely rewarded through existing markets. Consequently, those managing landscapes often bear the costs while society receives many of the benefits.

This is particularly evident in disaster resilience. Indicative flood and cyclone response and recovery expenditure across northern Western Australia has averaged approximately **\$3.20 per hectare per year** since 2021, with these costs expected to increase under future climate and economic pressures. This does not include the substantial annual costs associated with bushfire, business disruption, environmental degradation or broader social impacts.

Given the growing body of practical knowledge—from the stewardship of John Henwood at Fossil Downs and Kachana Station, to the work of the Martuwarra Council and the global **UN Decade on Ecosystem Restoration**—there is a timely opportunity to shift greater investment toward prevention rather than recovery.

Healthy landscapes slow and retain rainfall, reduce erosion, reconnect floodplains and support groundwater recharge. Investing in landscape function therefore complements traditional engineered infrastructure while delivering multiple co-benefits for biodiversity, agricultural productivity, cultural values and community resilience.

This approach aligns closely with the Australian National University's **National Guidelines for Nature-based Flood Mitigation**, which recognise that restoring catchment processes, floodplains and wetlands can reduce flood risk while delivering broader environmental and social outcomes.

Viewed through this broader lens, catchment stewardship becomes an investment in natural capital. Long-term monitoring, adaptive management and transparent governance



can provide the evidence needed to attract emerging investment through natural capital and resilience markets alongside traditional public funding.

Rather than viewing water planning, disaster resilience, biodiversity conservation and economic development as separate objectives, the Plan has an opportunity to integrate them within a single catchment stewardship framework that builds healthy landscapes, resilient communities and sustainable regional economies.

Alignment

This approach does not require a new policy direction. Rather, it provides an opportunity to integrate existing national priorities—including the National Soil Action Plan, the National Disaster Risk Reduction Framework, the Future Drought Fund (including the Kimberley Regional Drought Resilience Plan), the Nature Positive Plan and the National Heritage Trust—into a practical, place-based model of adaptive catchment stewardship. Importantly, it builds on the knowledge, commitment and stewardship already being demonstrated by Traditional Owners, pastoralists, community organisations and regional partnerships across the Fitzroy catchment.

Rather than viewing water planning, disaster resilience, biodiversity conservation and economic development as separate objectives, the Plan has an opportunity to integrate them within a single catchment stewardship framework that builds healthy landscapes, resilient communities and sustainable regional economies.

Conclusion

The draft Plan establishes an excellent vision for integrated water management. The next challenge is ensuring that governance arrangements are capable of delivering that vision in practice.

By strengthening collaborative governance, investing in regional capability, embracing adaptive management, expanding transparent monitoring partnerships and recognising landscape stewardship as fundamental to water security, the Fitzroy-Derby Water Resources Management Plan can become a nationally leading example of holistic catchment management.

Ultimately, healthy water resources emerge from healthy catchments, and healthy catchments emerge through collaborative stewardship of both the landscape and the people who manage it.

Thank you and please do not hesitate to contact the undersigned to discuss further.

Yours sincerely,

Jardine Macdonald

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