



Minister for Water; Fisheries; Forestry; Innovation and ICT; Science

Our ref: 75-11289

Mr Brent Finlay
Chair Future Drought Fund Consultative Committee
Email: droughtresilience@agriculture.gov.au

Dear Mr Finlay

SUBMISSION FROM WESTERN AUSTRALIA TO THE DROUGHT RESILIENCE FUNDING PLAN 2020-24 CONSULTATION DRAFT

The Western Australian Government welcomes the opportunity to comment on the Drought Resilience Funding Plan 2020–24.

Western Australia generally supports the funding principles, vision, aim, strategic priorities and objectives of the Drought Resilience Funding Plan, in particular the holistic approach to building drought resilience (with economic, environmental and social focus). We are pleased that the plan remains consistent with current Australian drought policy and will continue to encourage drought preparedness, resilience and farmer self-reliance.

We also strongly support the inclusion and recognition of climate change in the plan, together with its clear link to drought; and an acknowledgement of climate change challenges and the need for investment to ensure adaption and practice change.

While the funding plan appears to envisage a diverse range of project types and scales, we note that the focus and eligibility criteria of programs underpinning the plan is yet to be detailed. This level of detail will be of significant interest, and it is hoped that the practical implementation of the funding plan will support the specific agricultural, community and water resource needs of Western Australia.

Western Australia's climate has changed during the past century, with our State's South West region impacted by climate change more than almost any other place on the planet. We have seen higher average temperatures, and a steady decline in rainfall over the past 40 years.

Long term annual average rainfall in areas that rely on irrigated agriculture is now more than 15 per cent lower than it was in 1975, with average streamflow in these areas reduced by as much as 60 per cent.

In the future, it is expected climate change will drive increased average and maximum temperatures, increase the length of dry periods and lead to more extreme weather events. In the South West, prolonged periods of drying will continue to affect primary industries, water security and natural ecosystems.

Ongoing drying could significantly reduce wheat yields in parts of the state, with some agricultural areas at risk of becoming marginal. Increased temperatures and changes to rainfall and fire risk will also have implications for livestock and pasture management, with extreme weather events likely to exacerbate land degradation, cause plant health and animal welfare implications, and increase infrastructure and insurance costs.

Western Australia has been working to develop more climate-independent public water sources, through innovative technologies such as desalination, water recycling and groundwater replenishment, and continues to support and encourage households, councils, industry and farming communities to improve water efficiency across the state.

However, as the trend of climate change continues, we recognise that further efforts to improve drought resilience will be required. To this end, we would like to propose four potential funding opportunities that align with the principles of the Funding Plan and enhance public good by building drought and climate change resilience.

The projects we are proposing are focussed on rangeland restoration, enhancing agricultural community water supply security, enhancing on-farm water supplies, and supporting peri-urban horticulture. The creation and integration of new knowledge using updated technology are a feature of these projects.

A summary of each project is provided below, with the total value of projects being \$10 million per year (over the first four years). It is proposed that the projects be funded through a State Funding Agreement.

It is noted that the Future Drought Fund will make \$100 million available each year to support drought preparedness activities. Therefore, factoring in the significant impacts of climate change on Western Australia, coupled with our State representing approximately 10 per cent of the Australian population, and contributing a gross value of agricultural production exceeding 10 per cent of the national production value, we believe that this level of initial investment is reasonable.

We welcome further engagement to develop and progress these projects for the benefit of Western Australian agriculture and regional communities.

Yours sincerely

Hon Dave Kelly MLA
MINISTER FOR WATER

Hon Alannah MacTiernan MLC
MINISTER FOR AGRICULTURE

Att

Future Drought Fund – proposed Western Australian projects

Rangelands restoration

This project will involve a suite of complementary activities designed to assist with the regeneration of rangeland areas, improve pasture health and landscape function, and provide an increased body of research knowledge on the regeneration of rangelands landscapes, in order to achieve broad adoption of new and successful techniques.

The project would draw on the lessons of Northern Territory research to create a supply of near real time data from new technology (remote weighing machines, connectivity and remote / in situ pasture monitoring) to link animal condition to pasture condition to landscape condition i.e. start a path to landscape restoration from pastoralists' dominant mindset of livestock production.

The project would also subsidise the installation of this technology, of other capital expenditure conducive to total grazing pressure control (e.g. trap yards on waters), as well as extension on its use, and for the planning of land use, pasture and livestock management.

The project would seek a range of management plans appropriate to local conditions; that is a spread of approaches to achieve landscape restoration. Included would be at least one Aboriginal property to reflect the level of Aboriginal pastoral ownership in the Southern Rangelands.

The project would be staffed with personnel of suitable industry standing. Building in traineeships would be necessary to capture aging and rapidly disappearing skills.

Seasonal conditions may not result in significant rangeland improvement in all locales across the project's time frame. Therefore, Key Performance Indicators should also reflect the processes put into place to capture the opportunity when it arises. These include infrastructure installation, access to near real time data and its analysis, and extension activities.

Led by the Department of Primary Industries and Regional Development, key stakeholders and partners are expected to include rangelands pastoral businesses (mainstream and indigenous), Aboriginal Land and Sea Council, Rangelands Natural Resource Management, National Landcare, the Department of Biodiversity, Conservation and Attractions, Western Australia universities, Meat & Livestock Australia, the Commissioner of Soil and Land Conservation, Department of Planning, Lands and Heritage, and the Department of Primary Industries and Regional Development Regenerative Agriculture Discussion Group.

Enhancing agricultural community water supply security

With Western Australia becoming increasingly drier, and reduced winter rainfall affecting the reliability of on-farm and community water sources in the dryland agricultural region, there is a need to secure additional non-potable water supplies to provide emergency stock water, more reliable supplies for fire-fighting and for the irrigation of sporting facilities and other important community greenspaces in regional towns.

This project will initially see up to 90 community water supplies upgraded or developed in priority shires and locations across the Western Australian dryland agricultural region, with a second phase of upgrades following further audit and analysis of regional needs.

It will support liveable and climate resilient communities in rural Western Australia by developing and increasing the number of non-drinking water sources for country communities and emergency use. It will:

- build the water security of rural communities and towns now and into the future;
- improve emergency water supplies for farmers and firefighting;
- contribute to public and social amenity;
- build resilience in farming communities to combat climate change; and
- assist during periods of drought, especially where farmers experience on-farm livestock water deficiencies.

Led by the Department of Water and Environmental Regulation, key partners will include local government authorities, agricultural grower groups and representative bodies, the Water Corporation, and the Department of Primary Industries and Regional Development.

Enhancing on-farm water supplies

This project will be designed to support drought resilient farms – with more on-farm water, whatever the weather.

With new desalination, sealant and evaporation control technologies available, there is an opportunity to augment on-farm water supplies in low rainfall regions of Western Australia, especially in areas without secure farm water supplies due to geological conditions, saline or brackish groundwater, and challenges with surface water capture and storage.

Development of this opportunity will enable broadacre cropping and livestock farmers to maintain production during low rainfall periods, and reduce dependence on state and local government operated piped water supplies (and mitigate the need to use scarce and costly potable water).

This four year on-farm self-sufficiency program features two parts with the first designed to demonstrate and encourage the uptake of new desalination technology appropriate for Western Australian conditions. The second part will involve research and demonstration of next generation evaporation control and catchment sealants. Both components will include development of new publicly available datasets and integration of this information into business decision aids to enable targeting of desalination and surface water capture opportunities.

Led by the Department of Primary Industries and Regional Development, partners will include Grower Groups, Murdoch University, the Department of Water and Environmental Regulation, the Water Corporation, Wheatbelt Development Commission, local government, and desalination service providers.

Supporting peri-urban horticulture

This project aims to improve the climate and business resilience of irrigated agriculturalists in peri-urban areas to droughts and climate change and improve on-farm water efficiency.

Decreasing rainfall and reduced recharge of groundwater aquifers, driven by climate change, is impacting on the sustainability of peri-urban irrigated agriculture, with competing groundwater users and important water reliant ecosystems and environments also at risk.

This project will build the capacity of irrigators to plan and adapt to climate change and has two main elements. The first is activities comprised of farm business benchmarking and financial analyses of water efficiency measures; business planning for climate change adaptation and industry adjustments to build a robust and resilient sector. Assistance with irrigation system design auditing, with training to build capacity of irrigators to understand and utilise technology to operate water efficient irrigation systems now and into the future will also be delivered in partnership with associated water professionals.

The second component will include incentives for groundwater users to adopt efficient on-farm irrigation technology and equipment. A co-investment approach will support the modernising of on-farm self-supplied irrigation systems through improved design and installation of water systems capable of high distribution uniformity, efficient application of irrigation and effective irrigation scheduling and monitoring.

This is a joint project to be supported by the Department of Primary Industries and Regional Development and Department of Water and Environmental Regulation, with partners including industry representative groups, training providers and water/business consultants.