Central West Queensland Regional Drought Resilience Plan

2024–2030

Australian Government
Department of Agriculture, Fisheries and Forestry

Future Drought Fund

Queensland Government

Rural Economies
Centre of Excellence

The Central West Queensland Regional Drought Resilience Plan has been developed as a partnership between the Rural Economies Centre of Excellence (RECoE) and the following organisation who will lead implementation of any actions: the Remote Area Planning and Development Board (RAPAD).

The Regional Drought Resilience Planning program is jointly funded through the Australian Government's Future Drought Fund and the Queensland Government. Development of the plan has been supported by the Australian Government (Department of Agriculture, Fisheries and Forestry) and the Queensland Government (Department of Primary Industries).

Acknowledgement of Country

We pay our respects to the Aboriginal and Torres Strait Islander ancestors of this land, their spirits and their legacy. The foundations laid by these ancestors – our first Australians – give strength, inspiration and courage to current and future generations, both Indigenous and non-Indigenous, towards creating a better Queensland.

We recognise it is our collective efforts and responsibility as individuals, communities and governments to ensure equality, recognition and advancement of Aboriginal and Torres Strait Islander Queenslanders across all aspects of society and everyday life.

On behalf of the Queensland Government, we offer a genuine commitment to fearlessly represent, advocate for, and promote, the needs of Aboriginal and Torres Strait Islander Queenslanders with unwavering determination, passion and persistence.

As we reflect on the past and give hope for the future, we walk together on our shared journey to reconciliation where all Queenslanders are equal.

Contact us

drought@daf.qld.gov.au

Call

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Monday, Tuesday, Wednesday and Friday: 8am to 5pm
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Interpreter statement

The Queensland Government is committed to providing accessible services to Queenslanders from all culturally and linguistically diverse backgrounds. If you have difficulty in understanding the regional drought resilience plan, you can contact us for assistance and we will arrange an interpreter to effectively communicate the plan to you.

Cover image: Look-out at the Australian Age of Dinosaurs jump-up, Winton. *Image supplied by: RAPAD.*

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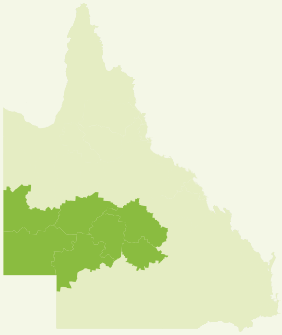
Foreword



The Central West Remote Area Planning and Development Board (RAPAD) along with our member LGAs, proudly acknowledges the Aboriginal peoples and Torres Strait Islander peoples as the Traditional Owners and Custodians of this Country. We recognise and honour their ancient cultures, and their connection to country and community. We pay our respect to them, their cultures, and to their Elders, past, present and emerging.

Image: Windorah aerial view. *Source: RAPAD.*

Disruptions and uncertainty in our world have become the norm in our ever-changing environment. Recent climatic events have reinforced the importance of building sustainability and resilience in our communities. Preparedness has never been more important for our communities to continue to thrive. Preparation, we believe, is critical to investment and employment attraction, the wellbeing of our people and the liveability of our region.

With this plan, we aim to strengthen, advance and transform the Central West region during the dry times. This plan has been built through engagement across the region with key stakeholders and the wider community. Their advice and expressions of lived experience, along with the best of resilience, science and practice, have been combined to create this shared plan for the region.

Our region and our communities are no strangers to hardship, shocks and natural disasters – floods, droughts and economic shifts have been regular events throughout our history and have served to create a resilient and adaptable culture. We have always worked together in our community and alongside our neighbours to prepare for and overcome such adversity. Drought has been an especially focused topic for our region, with recent droughts exacting a heavy toll on many of our rural communities. The RDRP program acknowledges the changes in our climate and the potential for longer, hotter, and drier seasons and the need to proactively nurture resilience to drought economically, socially, and environmentally.

The Central West Regional Drought Resilience Plan has been developed through a partnership between the Central West Remote Area Planning and Development Board (RAPAD) and its members Barcaldine Regional Council, Barcoo Shire Council, Blackall-Tambo Regional Council, Boulia Shire Council, Diamantina Shire Council, Longreach Regional Council and Winton Shire Council.

Our local governments are connected by history and commerce, and, with their wealth of social capital. This plan further illustrates our shared values and partnership.

The Central West region is a unique and diverse area that extends over 396,609 square kilometres, accounting for 23% of Queensland's land area. More than 95% of the region is used for agriculture and in 2019 accounted for 5% of Queensland's agricultural value.

Despite the small population and remoteness, the region hosts several unique communities where the residents' spirit, pride, sense of community and the innovativeness of small businesses combine to generate sustainable futures.

The potential of our region is enormous and inspiring, and we share a vision for the future where our region is proud of its vibrant economy and enabling infrastructure, its strong and resilient community, and its stunning natural landscapes. A reliable and consistent supply of water, along with building our resilience to drought, is critical to our future, and the legacy we create for future generations.

We are committed to working collaboratively with the Department of Primary Industries, other tiers of government, and our industry and community partners in the development and implementation of this Regional Drought Resilience Plan.

We thank our partners and the numerous people and organisations who have invested their time and knowledge to contribute to the development of this plan – their support of our region is what paves the way forward to our shared future, and a vibrant thriving legacy for future generations.

Tony Rayner
Chair
RAPAD Board

Acronyms

ABS	Australian Bureau of Statistics
ADII	Australian Digital Inclusion Index
AI	Artificial Intelligence
ARLF	Australian Rural Leadership Foundation
BoM	Bureau of Meteorology
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSO	Community Service Organisation
CW	Central West
CWQ	Central West Queensland
DCQ	Desert Channels Queensland
DDMG	District Disaster Management Group
DETSI	Department of the Environment, Tourism, Science and Innovation
DPI	Department of Primary Industries
DRAMP	Drought Resilience, Adaptation and Management Policy
DLGWV	Department of Local Government, Water and Volunteers
FDF	Future Drought Fund
FRRR	Foundation for Rural and Regional Renewal
LDMG	Local Disaster Management Group
LGA	Local Government Area
LGAQ	Local Government Association of Queensland
NEMA	National Emergency Management Agency

Image: Longreach aerial view. *Source: RAPAD.*

NFP	Not for Profit
NRM	Natural Resource Management
PHN	Primary Health Network
PRA	Participatory Rural Appraisal
QFD	Queensland Fire Department
QLD	Queensland
QPS	Queensland Police Service
QPWS	Queensland Parks and Wildlife Service
QRA	Queensland Reconstruction Authority
QRIDA	Queensland Rural and Industry Development Authority
QSDR	Queensland Strategy for Disaster Resilience
RAPAD	Remote Area Planning and Development
RDA	Regional Development Australia
RDRP	Regional Drought Resilience Plan
RECoE	Rural Economies Centre of Excellence
RRA	Rapid Rural Appraisal
SEIFA	Socio-Economic Indexes for Areas
TRACC	Tackling Regional Adversity through Connected Communities
WQPHN	Western Queensland Public Health Network
UNDRR	United Nations Office for Disaster Risk Reduction

Introduction

Background

The Regional Drought Resilience Planning (RDRP) program is jointly funded through the Australian Government's Future Drought Fund and the Queensland Government.

The Queensland Department of Primary Industries (DPI) has partnered with the Rural Economies Centre of Excellence (RECoE) with the purpose of having an impact on how regions can survive and thrive into the future.

The RDRP process will:

- foster learning and build social capital
- foster co-designed, community-led planning and collective
- ownership of the resulting plan and its implementation
- leverage existing local, regional and state strategic planning
- recognise the diversity of people, businesses and landscapes involved in agricultural production
- provide linkages with the FDF Drought Resilience Adoption and Innovation Hubs.

Five regions produced RDR plans in the foundational year. In the second round, the remaining nine regions developed RDR plans to prepare for future droughts, with a sharp focus on the agricultural sector and allied industries.

Each plan will build upon the Regional Resilience Strategy as part of the Queensland Government's Strategy for Disaster Resilience, led by the Queensland Reconstruction Authority. Based on evidence and collaboration through partnering with local councils, regional stakeholders and other organisations, the plans – led and owned by the community – aim to drive decisions, actions and investments to proactively manage drought risk.

Regional Drought Resilience Planning

Australia, and particularly the State of Queensland, is no stranger to drought. First Nations traditional stories of drought go back thousands of years and European settlers have officially recorded drought in Australia since the late 1700s. Droughts have been officially 'declared' in Queensland since 1897.[1]

The economic, social and environmental costs of drought in Queensland are immeasurable. The toll taken on regions and their communities is high and the impacts often linger for decades. So, in recent years there has been a growing emphasis on the importance of drought resilience planning. This means planning now for the next drought and considering how to do things better or differently to make our communities more resilient.

Alignment with the Queensland Strategy for Disaster Resilience and Regional Resilience Strategies

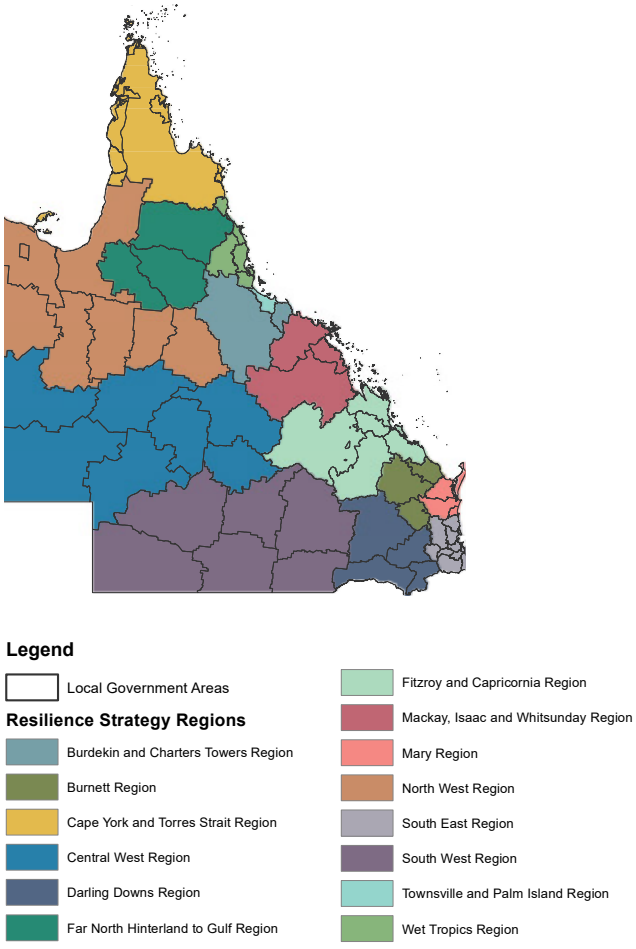
Queensland is the most disaster impacted state in Australia, and Queenslanders are susceptible to a variety of hazards. We are facing unprecedented change in both our current and future operating environment with a dynamic political, social, economic and policy landscape surrounding disaster risk reduction and resilience. This is being amplified by natural hazards becoming more frequent and intense due to a changing climate.

The *Queensland Strategy for Disaster Resilience 2022–2027* (QSDR) promotes a systems approach to resilience that connects with a range of agencies and sectors to deliver improved outcomes for Queensland.

Queensland's suite of Regional Resilience Strategies ensure every region across Queensland is now part of a locally-led, regionally-coordinated and state-facilitated blueprint to strengthen disaster resilience.

It is often agreed that resilience planning for disasters and resilience planning for drought should be aligned. The Queensland RDRP program builds on the work completed under the QSDR, led by the Queensland Reconstruction Authority (QRA). The RDRP program provides the opportunity to have a clear focus on drought risk in the context of regional resilience, addressing the unique challenges it poses and the need for setting out drought-specific priorities and actions at a regional and local level.

Figure 1: Queensland's Regional Resilience Strategies (Regions and Local Government Areas), Queensland Strategy for Disaster Resilience 2022–2027.[11]



Regional planning and approach

This plan was developed and produced through a collaborative partnership between DPI, RECoE, QRA, RAPAD and its member LGAs, the local facilitators (Gerry Roberts and Rachel Webster) and key regional, community and industry stakeholders. The regional engagement model was developed from earlier work undertaken by RECoE, Red Cross Queensland[2], the Queensland Reconstruction Authority (QRA)[3], and was informed by international best practice from the World Bank and the UNDRR[4], as well as recent work by CSIRO[5]. The plan has been reviewed by an independent assessor appointed by the Australian Government, and their feedback has been incorporated in the final plan.

The plan was co-designed with local stakeholders, using an approach that emphasised: initial trust-building; building on existing networks; local co-design of process; commitment and agreement; risk-informed adaptation of processes; place-based and regional strategies; locally led and coordinated solutions and integrated multi-objective responses. The approach was sensitive to the high levels of well-recognised 'engagement fatigue' in many of the drought-affected communities of the region; large physical distances between key locations; constraints on time for all stakeholders and participants and maximising opportunities to 'piggyback' with important regional events. Hence the plan was developed through practical and effective processes that maximised active participation, recognised and respected a diverse range of knowledge, values and views, and above all, were ethical and fair.

Regional engagement process

The RDRP engagement process was reiterative and involved a systems approach that highlighted local voices and ownership and encouraged people to describe important information in their own words. It also combined both subjective and objective perspectives by using local, traditional (including First Nations) as well as 'scientific' knowledge.

The plan was co-designed with a wide range of local partners and stakeholders that included: RAPAD; agricultural businesses and associations; NRM groups; First Nations groups and elders; QLD state government agencies; QFD; local government (councils, mayors, staff and groups); CSOs, NFPs and charities; local (town) businesses; educational providers; young people; health providers; banks and finance advisers; religious leaders; and consultants and advisers.

During the engagement period, various stakeholders described the issues and priorities relating to drought in the Central West region. Allowing people to articulate these complex issues in their own words was critical to developing and working with a common understanding. Stakeholders were then asked to review and prioritise key findings in an iterative process that helped to build a common understanding of the RDRP outcomes.

Key principles and concepts: drought and resilience

Whilst there is no universally accepted definition of drought, in Australia, the Bureau of Meteorology (BoM) states, "drought, in general, means acute water shortage"[6].

In Queensland, drought is 'declared' for a local drought area and/or individual properties. Local drought areas are drought declared "when the rainfall recorded during the previous 12 months (minimum) is in the lowest (or driest) decile or below the 10th percentile when compared to the long-term historical rainfall"[7]. This is the technical definition of drought utilised in this plan.

'Resilience' is even harder to define. The World Bank has defined resilience as the ability *"… to anticipate, absorb, accommodate or recover from the effects of a hazardous event in a timely and efficient manner"*[8].

Australia's CSIRO perhaps more specifically states:

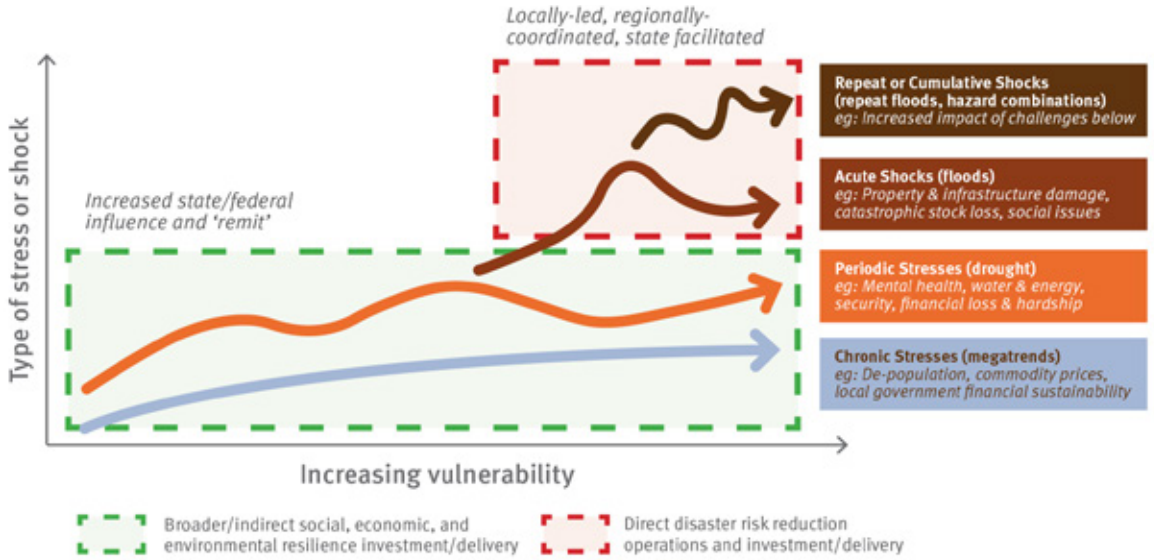
***"drought resilience will result in a regional Australia that can endure deeper, longer droughts, and recover from them sooner. This will allow our food and agribusinesses to boost national farm income, increase food security, and protect the regional jobs that rely on agriculture. It will increase the resilience of rural and regional communities that depend on agriculture and improve environmental outcomes"*[9].**

This plan utilises drought resilience objectives that broadly align with the four key objectives underpinning the *Queensland Strategy for Disaster Resilience*.

Experience from earlier works on resilience has highlighted the crucial importance of community and regional resilience, sometimes referred to as 'societal' resilience. For instance, work by QRA has revealed that community stakeholders report that their 'societal resilience' is significantly affected by chronic and enduring stresses (long-term megatrends such as ageing populations, fluctuating commodity prices), periodic stresses (such as drought) that are often cyclical, acute shocks (such as rapid-onset disasters), cumulative shocks (often a rapid succession of shocks or the increased impacts of the combined stresses and shocks).

Figure 2: Four key objectives of the Queensland Strategy for Disaster Resilience 2022–2027.[12]

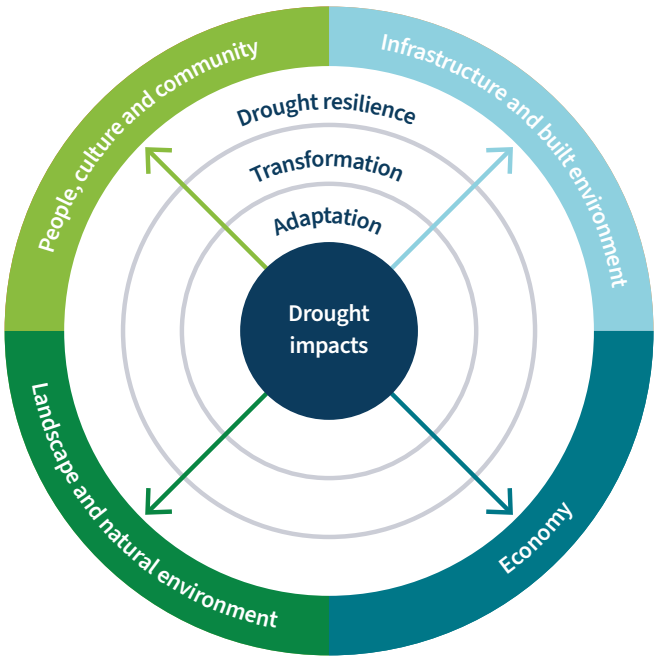
Figure 3: How resilience is affected by stresses and shocks, adapted from the Queensland Strategy for Disaster Resilience 2022–2027.[13]



Whilst drought has been often referred to as "an enduring feature of the Australian landscape", when viewed in this context of community resilience, drought is also understood as a periodic stress that comes and goes. However, it is now evident that the warming caused by climate change has added to the variability in Queensland's weather and "increased the severity of drought conditions during periods of below-average rainfall"[10].

Importantly, our approach and engagement processes encouraged community and regional stakeholders to express their own observations of 'drought' and 'resilience'. We have combined the 'local' with 'outside' definitions to produce the regional understanding that underpins this plan and identifies drought impacts, risks and pathways to resilience.

Figure 4: Queensland RDRP elements of drought resilience.[14]



Regional profile

The Central West (CW) region occupies almost 23% of Queensland's area, with a population of just over 10,100 people. There are seven local governments within the Central West region: Barcaldine Regional Council, Barcoo Shire Council, Blackall-Tambo Regional Council, Boulia Shire Council, Diamantina Shire Council, Longreach Regional Council and Winton Shire Council.

Key towns across the Central West include (from east to west) Tambo and Blackall, Alpha, Jericho, Barcaldine, Aramac, Muttaburra, Ilfracombe, Isisford, Yaraka, Longreach, Stonehenge, Jundah, Windorah, Winton, Boulia, Urandangi, Bedourie and Birdsville.

Each town across the Central West has its own unique character, steeped in rich history. These towns are important hubs for community connection and local services and industries which support the local economy and businesses.

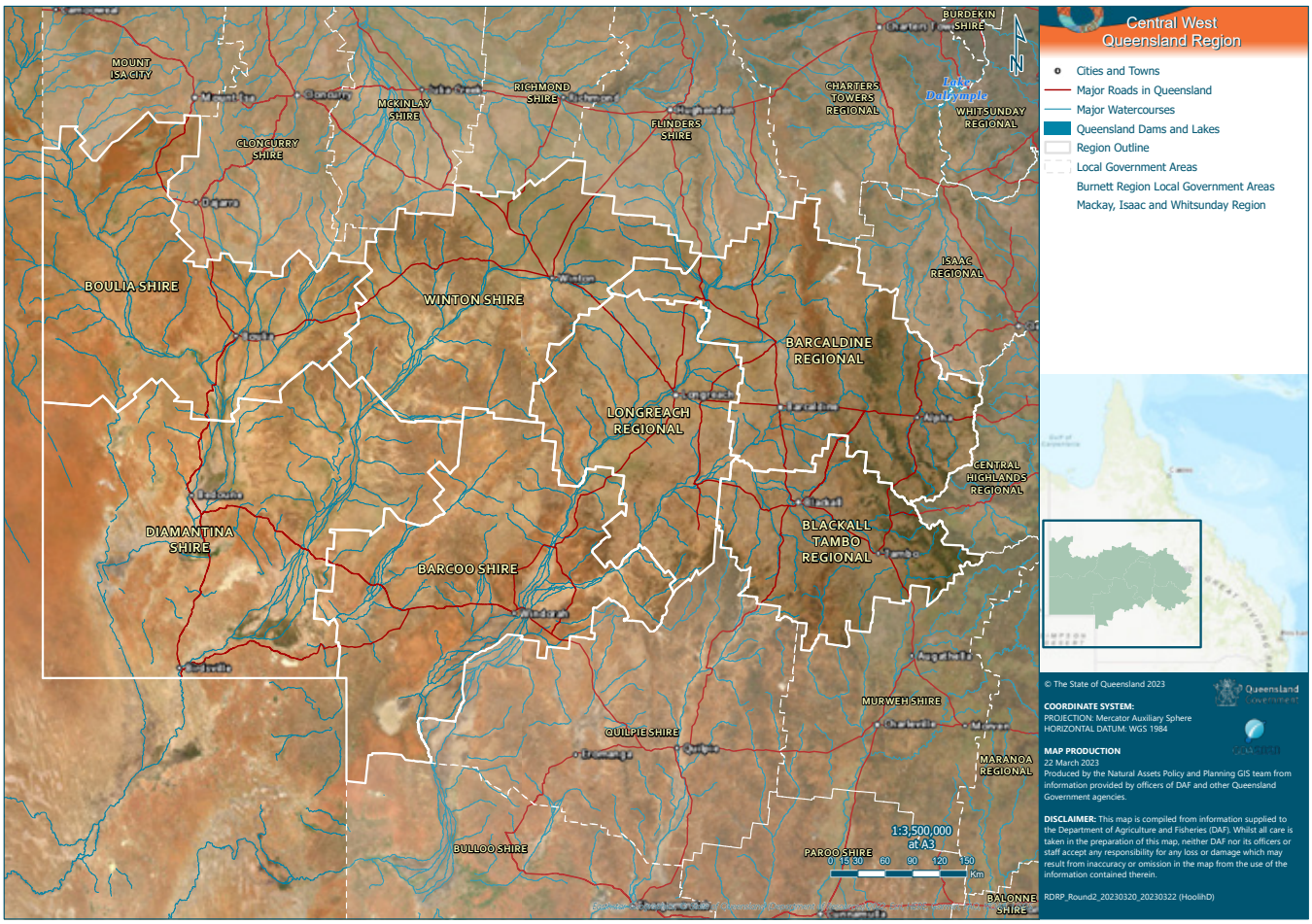
Aboriginal peoples have lived in the region for at least 50,000 years, and the region is dotted with sites and artefacts which are testament to a long and enduring history on this land.

The region is a rich tapestry of landscapes and ecosystems which supports diverse native flora and fauna. It is part of the Lake Eyre catchment and includes the Mitchell Downs, Channel Country and Desert Uplands biogeographic regions. Rural settlement began in the 1860s following discovery of what would become productive grazing lands by early explorers.

Since this time, agriculture continues to be the primary economic activity of the Central West, largely consisting of beef and sheep production. More than 95% of the region is used for agriculture and in 2019 accounted for 5% of Queensland's agricultural value. This sector dominates the current employment share of the Central West at 27.7%. Tourism comprises 6% of regional output and maintains an enormous capacity for growth.

Image: Longreach aerial view. *Source: RAPAD.*

Figure 5: Central West Queensland regional map.[15]



'Central western Queensland is the most boom and bust region in Australia. The highly variable Cooper and Diamantina systems are the most variable in the world!'

— Ag industry regional representative

Figure 6: Demographics of the Central West region by Local Government areas.[16]

Barcaldine	Blackall / Tambo	Longreach	Barcoo
Winton	Boulia	Diamantina	Queensland

Population (2021)			
2,627	1,787	3,350	266
1,101	447	311	5,217,653

Australian Digital Inclusion Index (2021) *Sample size too low*			
64	62	66	*
63	*	*	71

Projected population as at June 2041			
2,239	1,643	2,685	212
751	392	286	7,161,661

Unemployment rate (2022)			
2.7%	2.7%	2.7%	3.1%
3.2%	3.1%	2.9%	4.2%

Median age of residents (2021)			
42.8	48.6	39.8	38.8
48.3	30.5	40.7	38.4

SEIFA 2016 Socio Economic Index of Social Disadvantage (mean score is 1,000)			
994	956	999	980
954	863	1,002	–

% Aboriginal or Torres Strait Islander Peoples (2021)			
7.7%	5.7%	6%	8.3%
7.3%	30.1%	21.8%	4.6%

Registered businesses (2021)			
573	352	624	60
236	58	29	460,669

% people who speak a language other than English at home (2016)			
1.7%	1.7%	3.4%	0%
1.9%	3.5%	8.3%	13.2%

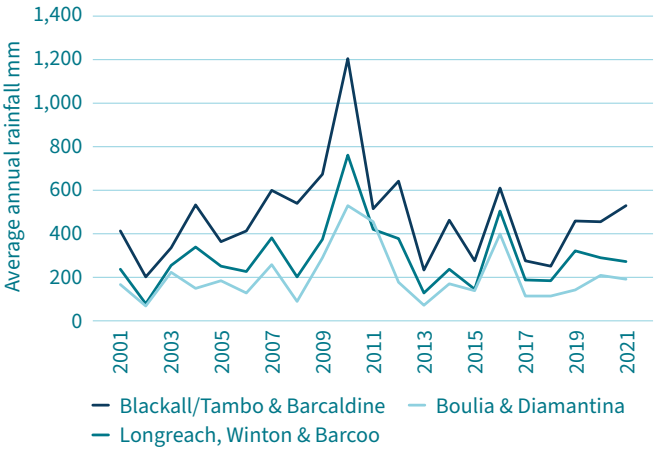
Persons with a profound disability needing assistance (2021)			
4.4%	6.2%	5%	3.6%
4%	0.7%	2.3%	6%

Median total personal income $/year (2019)			
48,408	44,640	53,991	56,944
50,688	53,272	57,203	50,298

Protected area – parks, forests, reserves area (ha) (2020)			
56,325	116,076	72,427	184,783
434,619	470,050	2,189,318	–

The climate of the CW region can be summarised as being dry and hot, with large variations within and across years. Projects from climate change models are there will be more frequent extreme hot days. Currently, frosts occur, but it is projected with a high level of confidence the number will decline across the region. Rainfall will continue to be influenced by the high climate variability, but it is predicted the intensity of heavy rainfall events will increase. Droughts occur regularly but the future frequency and duration of droughts is relatively unclear.[17]

Figure 7: Annual rainfall for three clusters of Central West LGAs.[19]



The variability of the region's rainfall is demonstrated through the range of annual rainfalls (e.g. between 200 and 1200mm for the Blackall/Tambo and Barcaldine cluster). Figure 7 demonstrates periods of lower rainfall can span multiple years (e.g. 2003–2005). The following two examples show the large variations around average maximum temperatures.

Figure 8: Blackall/Tambo LGA annual average maximum temperatures.[20]

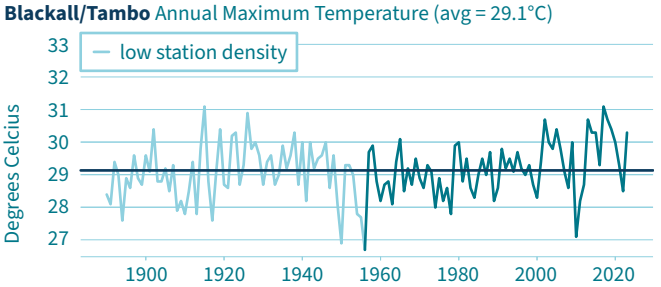
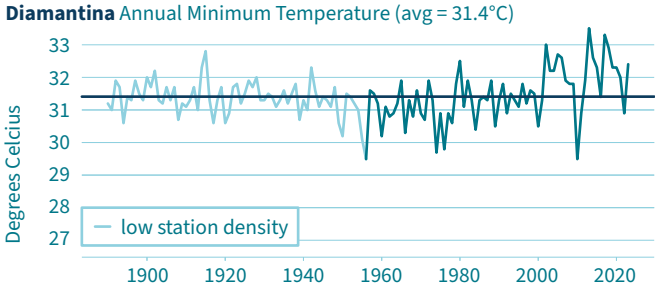


Figure 9: Diamantina LGA annual average maximum temperatures.[21]



The population of the seven Local Government Areas (LGAs) are depicted in Figure 10. The region is very sparsely populated and the population of all LGAs has declined since 2001. The Barcoo LGA experienced a 33% decline in population for the 20–year period. The Diamantina LGA experienced the smallest decline at 15%. The projected average annual population decline for the period 2016–2041 ranges from -0.2 (Diamantina) to -1.7% (Winton). The average decline across the region is projected to be -1.1%.

Total Regional Output in the region in 2019 was $1,563 million or 0.2% of Queensland's Total Regional Output. On a per capita basis, the region's output of $148,246 is similar to Queensland's average of $157,154. The regional output is dominated by the agricultural, forestry and fishing industries followed by construction, rental hiring, real estate services public administration and safety and tourism (RAPAD Region Economic Benchmarking and Promotion – Final Report 2021).

Figure 10: Regional population by LGA for the 2001, 2010 and 2020 years.[22]

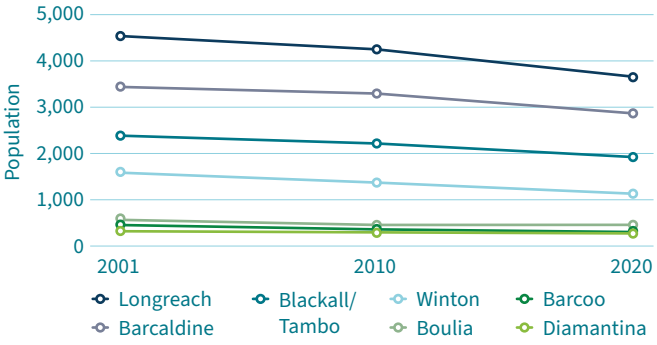


Figure 11: Regional output by industry sector in Central West Queensland.[23]

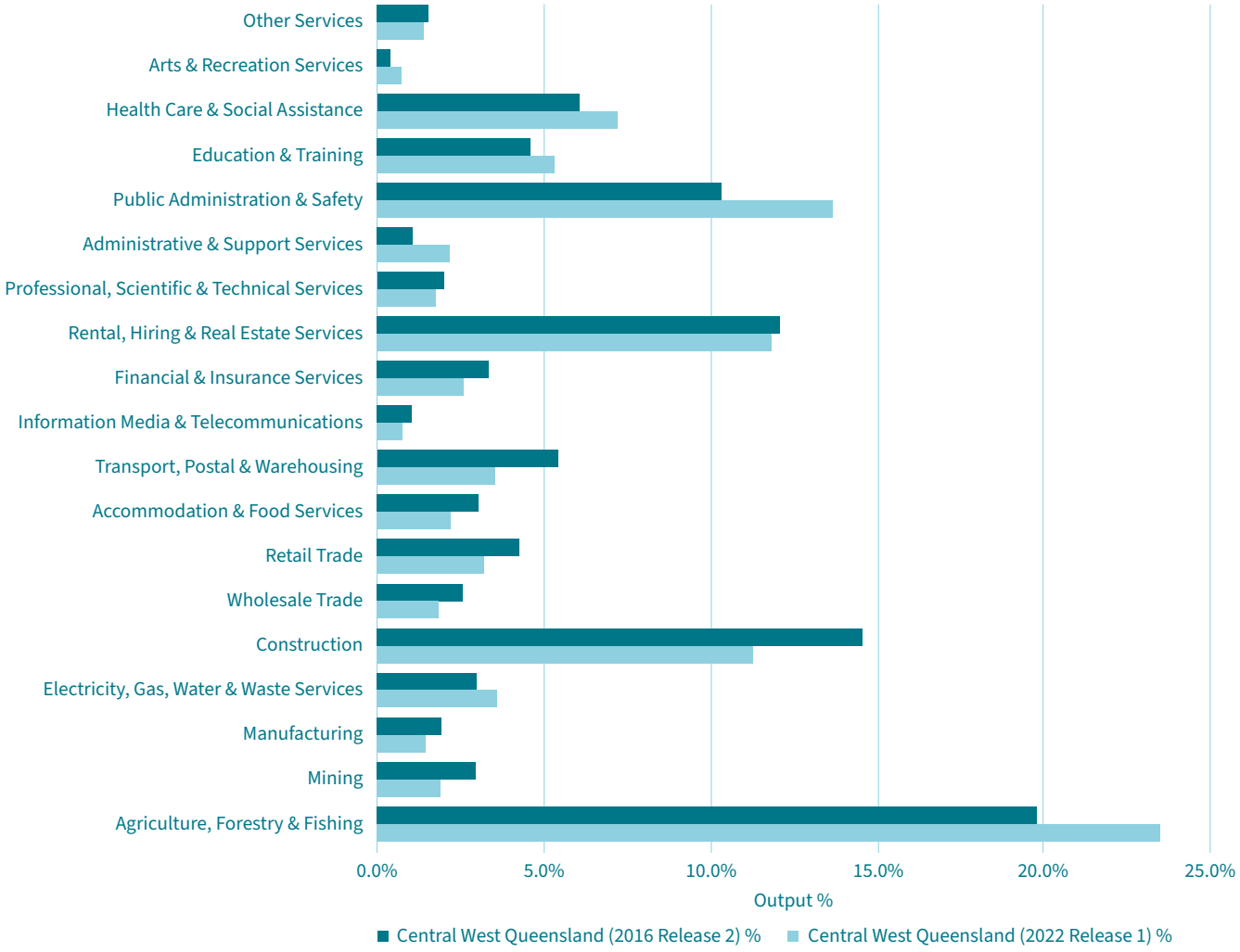
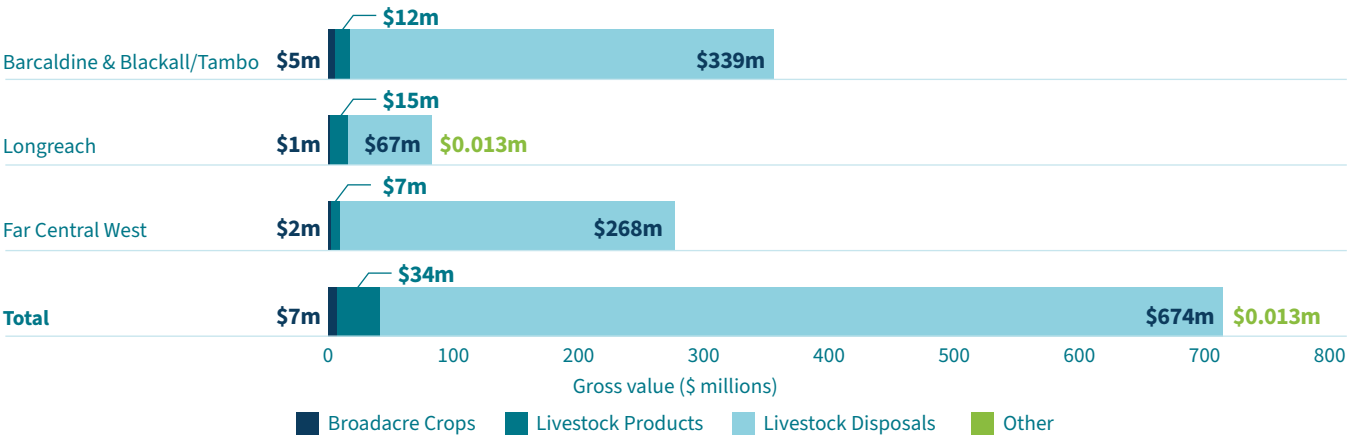


Figure 12: Agriculture gross value of product estimate for the 2023 Financial Year.[24]



Employment by industry closely aligns with the regional output by industry, with Agriculture accounting for 27.5% of the jobs in 2019. Public Administration and Safety was the next largest employer (12.5%) followed by Health Care and Social Assistance accounting for 10.6% of jobs. The Tourism industry is growing in the region and in 2019 was the fourth largest provider of jobs, contributing $108.8 million to the regional output. In 2022, unemployment in the region by LGA ranged from 2.7%–3.2%. This is relatively low when compared to the Queensland's state average of 4.2%. The CW region produces 4.12% of Queensland's Gross Value of Production in agriculture.

The Central West Regional Agricultural Profile shows a rise in the number of agricultural enterprises in the region between 2015–16 and 2020–21. The statistics in Figure 13 represent those enterprises where the business is registered in the Central West region. However, the business may have properties/farms outside the region (hence the inclusion of cropping enterprises).

While the number of sheep and lambs have reduced from 2015–16 to 2020–21, the region's wool production has grown from 26% of the Queensland total wool production to 32%. An increase in cluster (or exclusion) fencing has been cited as a major contributor to the increase in wool production in the region. Livestock slaughter and other disposals – cattle and calves – were the largest contributor to the region's value of agricultural production, accounting for 93% ($594,452,909) of 2018–19 total regional value of agriculture.[18].

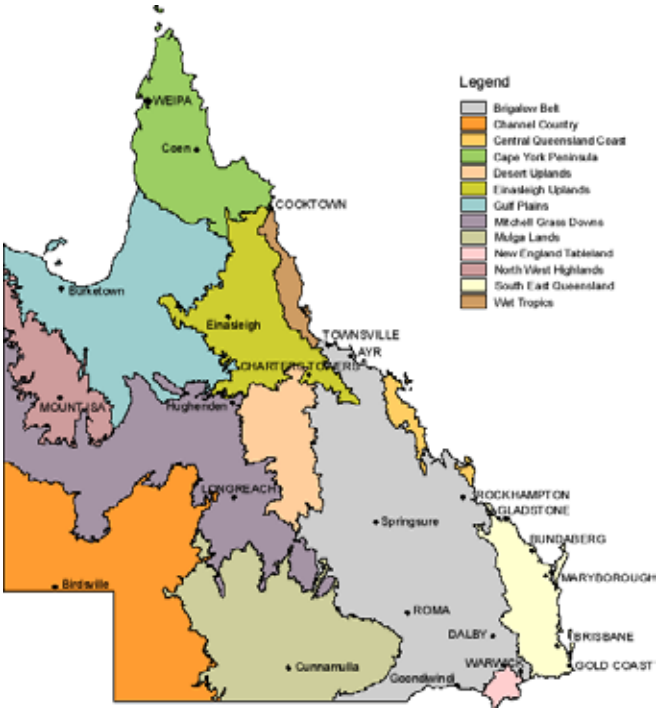
Figure 13: Central West Queensland – Regional Agricultural Profile.[25]

	2015-16	2020-21
Land not used for agriculture (ha)	1,830,138	1,291,360
Land mainly used for agriculture (ha)	40,965,716	41,504,494
Business enterprises (#)	649	711
Sheep and lambs (# of head)	485,203	795,748
Beef Cattle (# of head)	1,111,362	1,357,692
Goats (# of head)	NA	13,443
Total crops (ha)	17,191	41,227

Image: Handling sheep, Isisford. *Source: RAPAD.*

Figure 14 shows the region sits over two dominant bioregions, the 'Channel Country' and 'Mitchell Grass' bioregions.
The region also sits over the fringes of the Desert Uplands, North West Highlands and Mulga bioregions. Pasture management differs for each of the bioregions as does drought management. The Mitchell Grass pastures are highly productive in good seasons but quickly fall away in times of drought. Mulga is often used as drought reserves where fodder is harvested in accordance with the requirements of the accepted development vegetation clearing code for fodder harvesting.

Figure 14: Bioregions of Queensland.[26]



The stock route network for the region is extensive. There is a combination of infrastructure associated with these stock routes including watering facilities, access tracks/roads and in some instances, fencing. The primary use of stock routes is for traveling stock, particularly in and around drought periods. The stock routes also are used by neighbouring properties under lease arrangements. Increasingly, stock routes are recognised as valuable refuges for native fauna and flora and represent many ecosystems in a relatively natural state. The stock routes provide 'corridors' for fauna to move around the region.

The region has a long history of trading routes – including evidence of significant First Nations trading. To this day, transport in and out, and around the region, presents major challenges due to the vast distances, heat, and the quality of infrastructure. Major roads and highways criss-cross the region, including the Capricorn Highway and the Landsborough Highway. In the north of the region, the Kennedy Highway leads from Boulia to Cairns on the eastern coast of Australia. The Central railway line reached Longreach in 1892. The Spirit of the Outback is a long-distance passenger rail service operating from Brisbane to Longreach. The region is serviced by six airports, including Longreach Airport, Winton Airport, Windorah Airport, Barcaldine Airport, Aramac Airport and Blackall Airport.

However, transport still poses major challenges and residents are faced with issues of cost and limited frequency of transport options for themselves as well as for supplies and regional exports. A partnership between the Queensland Department of Transport and Main Roads, as well as local governments has produced a series of roads investment plans which identify priority works to upgrade the regional road networks. A viable and functionable road network is essential for the regional economy and communities to flourish. The Outback Regional Roads and Transport Group have overseen the development of a Regional Investment Strategy (2022). Figure 16 outlines the priority road works for the Central West Queensland region considering:

- all weather access
- market access
- asset renewal
- safety
- traffic volume
- employment sustainability.

Figure 15: Central West Queensland stock route network.[27]

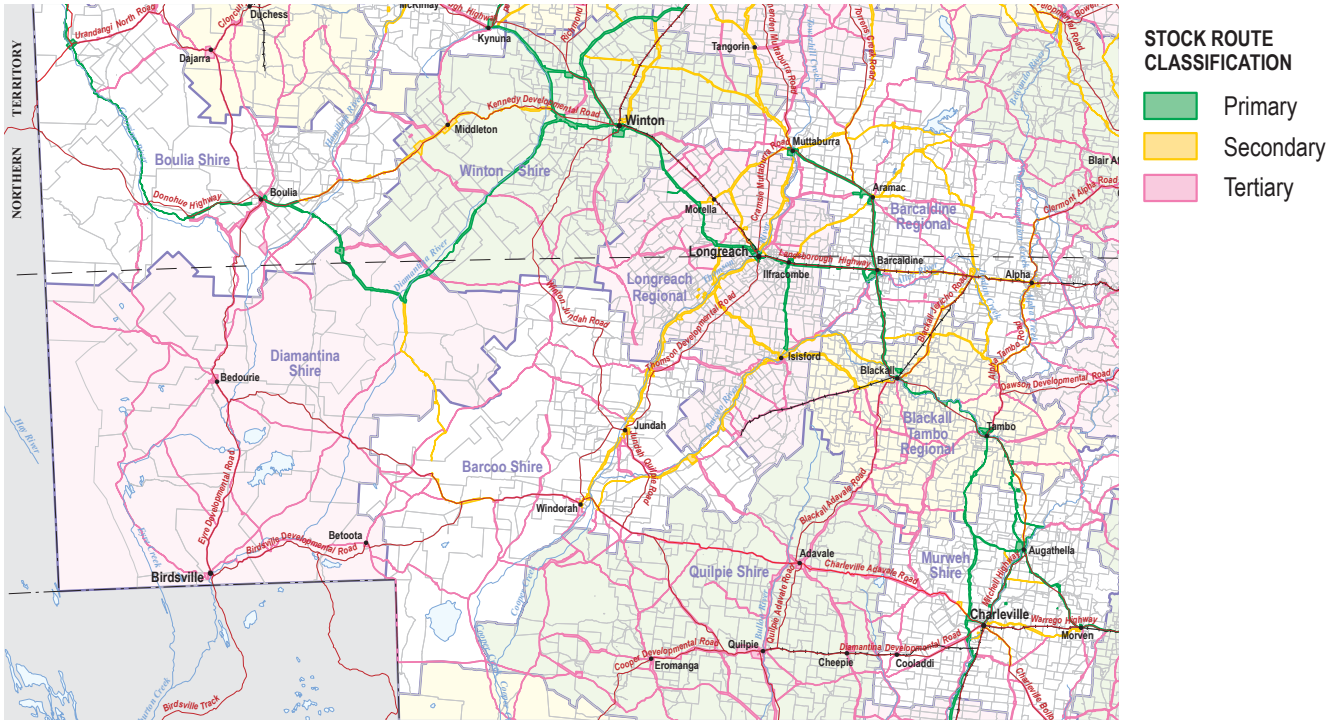
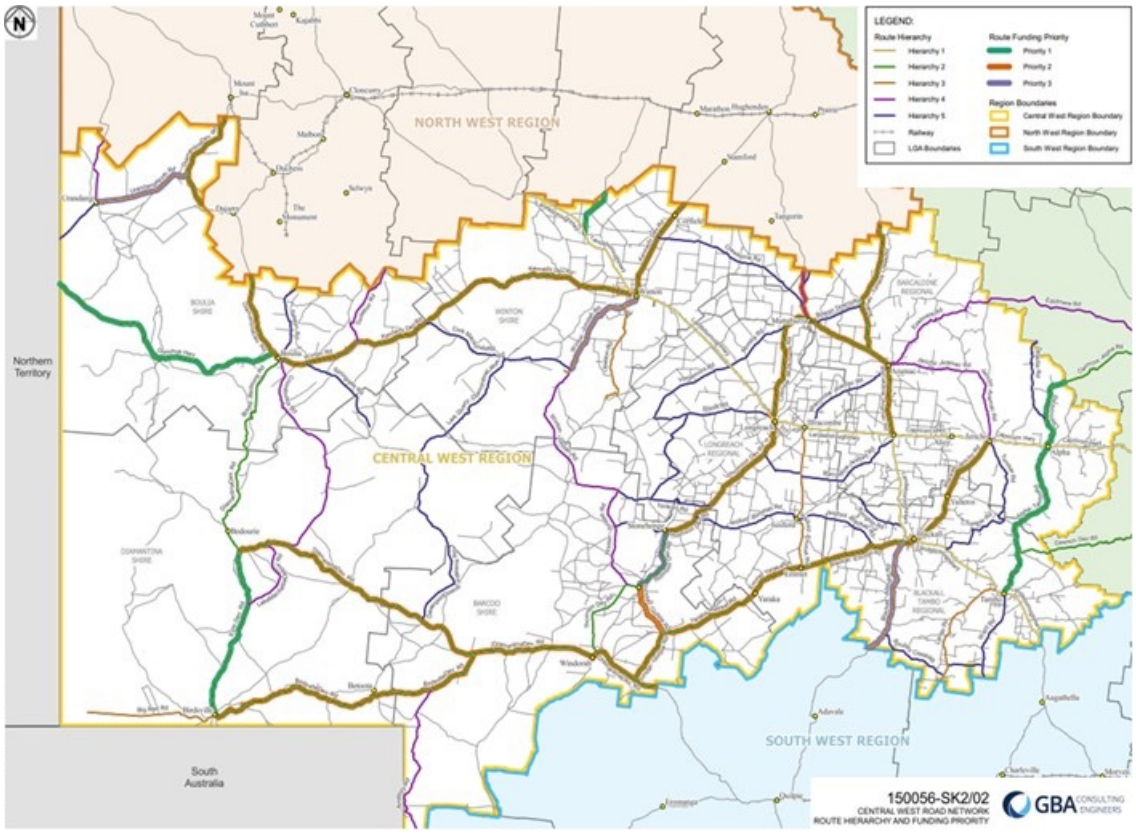


Figure 16: Central West regional road network and priority areas for investment.[28]



History of drought in this region

The Central West region of Queensland has a long relationship with drought.

The region is the traditional country of several First Nations language groups – particularly the *Kamilaroi, Pirriya, Mithika, Karuwalia, Iningai* peoples. They and their ancestors have had a long connection to the land and water, anchored deeply in their cultural, spiritual and historical identity, with a deep knowledge of drought. Over time, land dispossessions, urban development, and loss of native flora and fauna have had unique impacts on First Nations peoples and affected both their cultural practices and decision-making power. There is still a strong link between water and country – the waterways, waterholes and patterns of rain and flood in this region – and the cultural practices/identity of the Aboriginal/First Nations people. Connolly, Williams and Williams (2017)[29] describe the importance of having sufficient 'cultural water' in the upper Murrumbidgee River in the following way:

"Water is integral to Aboriginal culture and belief systems. We define cultural water as having four distinctive components, that are associated with (1) healthy rivers, (2) resource availability, such as bush tucker and medicine, (3) cultural practices that form custom and belief systems, and (4) the contemporary economic and social requirements of Aboriginal people, such as formal water allocation for economic advancement."

The far north-western areas of the Queensland Central West region encompass the Simpson Desert, where drought and the rarity of both rainfall and groundwater (waterholes) was well-known to traditional owners who resorted to hand-dug wells called *mirkiri* in various locations[30] to ensure their survival. However, the more eastern river systems of the so-called 'Channel Country' (in the south-west of the region) that run north to south and drain into Lake Eyre, provided an abundance of food sources and well-documented trading routes for Indigenous people. It was these well-vegetated river systems and sprawling grasslands

"Droughts are our reality. Ideally, we would like to smooth the edges of the ups and downs so that they are easier to manage."

— Local grazier

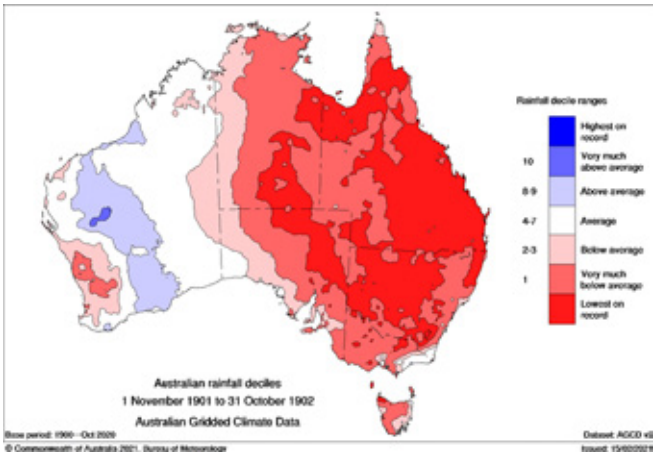
that first caught the attention of early European explorers such as Thomas Mitchell, who in September 1846, viewed the area around modern-day Barcoo and described it as *"… a wonderland, the most beautiful I have ever beheld"*[31]. The various accounts of subsequent explorers – e.g. Edmund Kennedy (1847), Ludwig Leichardt (1848), Augustus Gregory (1858) and Landsborough & Buchanan (1860) – all give greatly varied accounts of the country and are evidence the healthy condition of land and rivers was highly variable and significantly affected by rainfall.

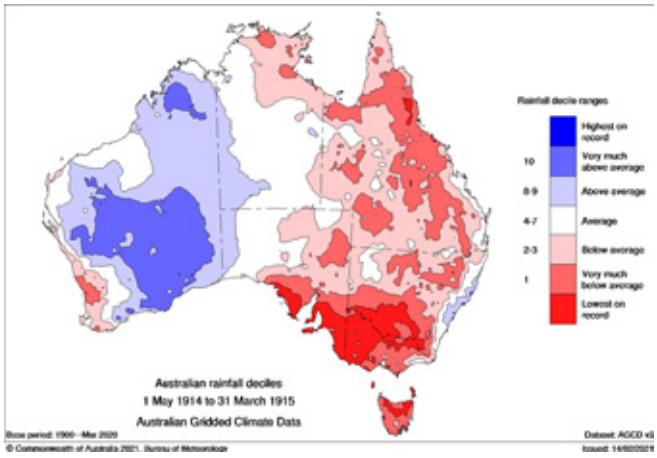
It was the rolling grasslands – predominantly vegetated with drought-tolerant 'Mitchell Grass'[32] *(genus: Astrebla)* – and the availability of plentiful river water, that brought pastoralists to the western half of what we now call the Central-West region of Queensland. By the 1860s and 1870s, vast pastoral 'runs' had been established, many still operating to this day. In October 1862, the first mob of cattle (3,500) arrived on Bowen Downs station from Fort Cooper, and station records show they faced their first serious drought in 1863. However, records from Aramac and Bowen Downs from later in the very same year showed any areas close to the riverbanks became heavily flooded when heavy rains were experienced in the Northern Gulf.

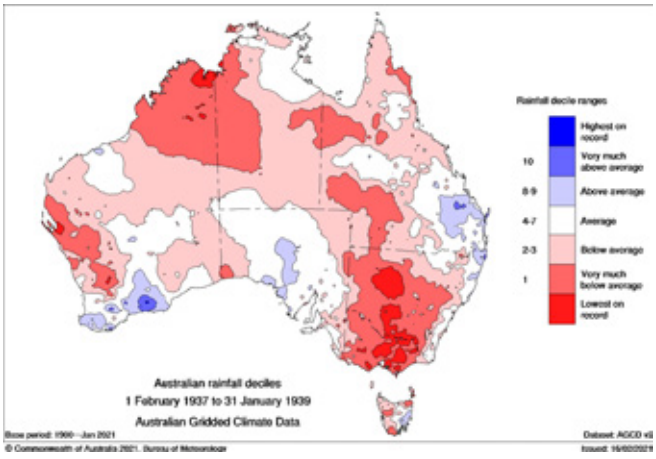
The pastoralists stocked their land with sheep and cattle, but often struggled to maintain stock levels due to recurrent droughts – large stock losses were recorded particularly in the drought of 1869–71[33]. The infamous 'Federation Drought' took a severe toll on the region, as it did all over the country. For example, at Mt. Cornish station on the Thompson River near Longreach: *"By 1876 when a new house was built, the Mt. Cornish Shorthorns, bearing the L.C. 5 brand numbered about 78,000… the 1900/2 drought, brought down the numbers to an extent that only 1,260 beasts were mustered at the end of the drought and the property was sold."* (A History of Western Queensland, 1962).

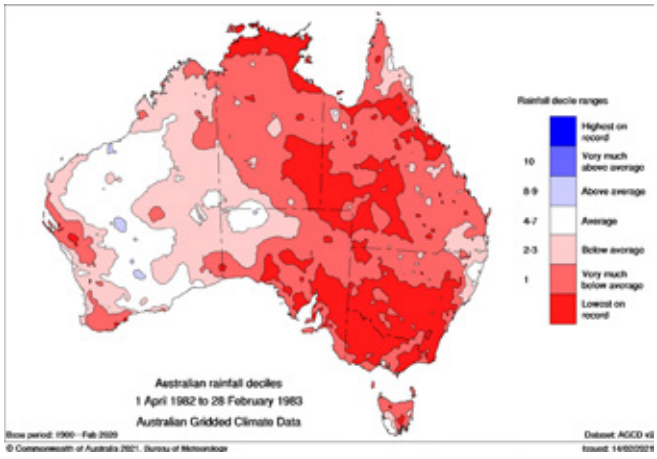
Some of the most significant periods of drought are summarised in Figure 17, while the cyclical variations in rainfall are summarised in Figure 18.

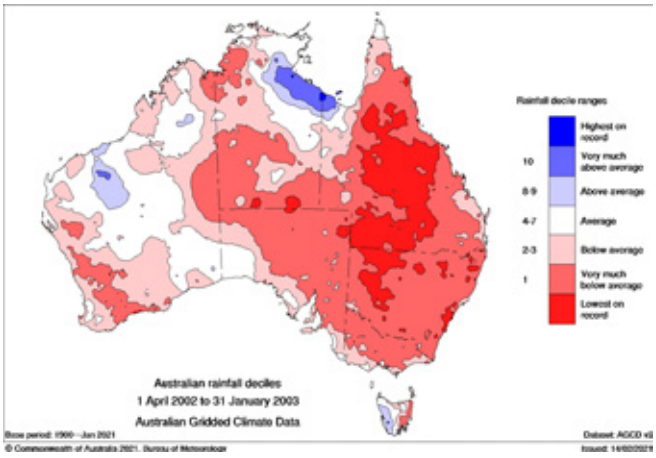
Figure 17: Maps showing significant droughts in the Central West QLD region 1901–2023.[35]











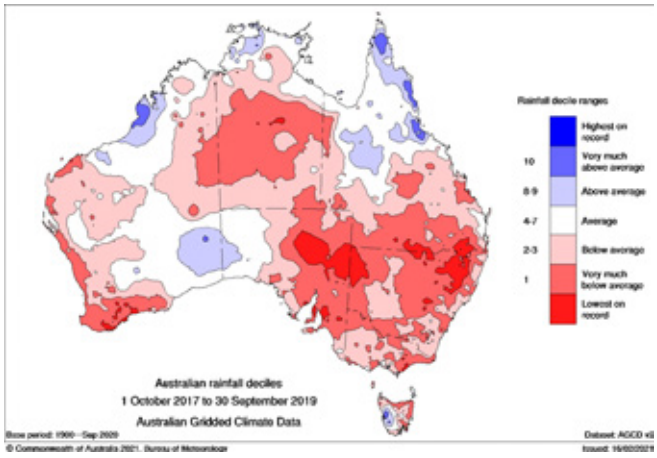


Figure 18: Cyclical variations in rainfall over time, and patterns of drought declarations.[36]

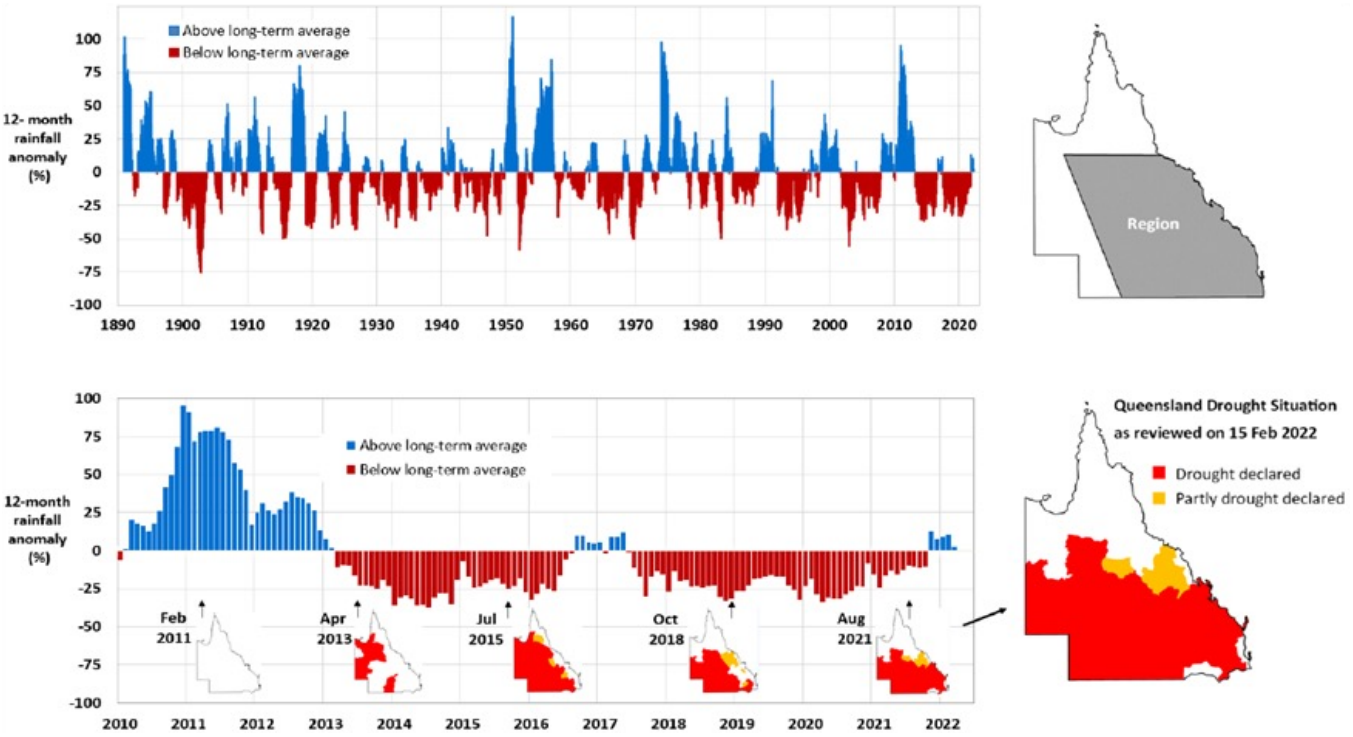


Image: Cattle road train, Longreach. *Source: RAPAD.*

Figure 19: Average rainfall 1888–2021 and 2001–2021.[37]

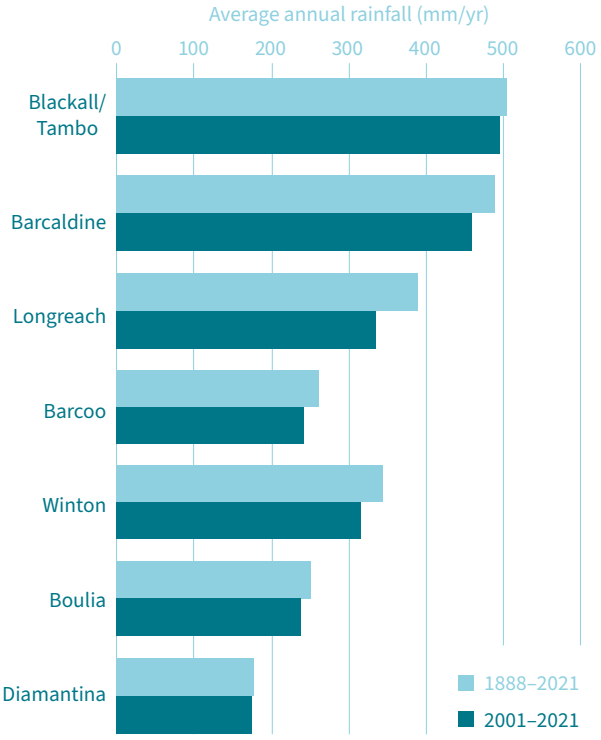


Figure 20: Percentage of time in drought since 1964.[38]

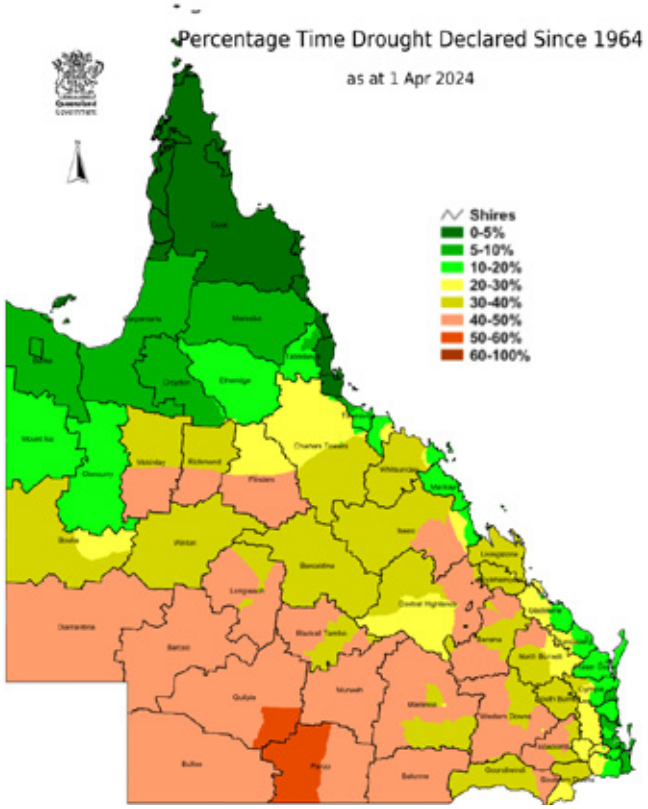


Figure 19 shows since official records commenced in the region in 1888, average rainfall varies significantly across the Central West region – with less rain in the west and south-west compared to the eastern parts of the region. Figure 19 also shows in recent years the averages are declining. The region as a whole has been 'drought-declared' for mostly 30–50% of time since 1964 (Figure 20).

The development of infrastructure and advances in agricultural technology have improved resilience to drought conditions over time. In 1885 Dr R.L. Jack, the Government Geologist of the Colony of Queensland, ordered the boring of a well in Blackhall. Water was struck in 1888 and by 1904 there were 596 artesian bores flowing – over half in Central West Queensland. These deep bores, along with shallower windmill pumps, provided the additional water sources to support larger numbers of stock (particularly sheep) and 'even' out the worst effects of drought. It has been noted the availability of bore water allowed movement and agistment of stock, and helped minimise losses during periods of drought. Improvements in pasture and stock generated greater productivity during dry times, while better transport and availability of supplementary feeds allows for additional management responses.

However, the grazing industry dominating the economy and land use in the region is still almost fully dependent on rainfall and climatic conditions. There has been some shift away from a traditional focus on wool to beef cattle over recent decades, and towards some meat sheep and goats in more recent times, but these are all based on rangeland grazing systems. A recent report[34] by the Queensland Department of Primary Industries (DPI, 2021) notes:

"The major challenges facing livestock producers in the central-western rangelands of Queensland are associated with the large inter-annual and decadal rainfall variability, and resulting major temporal variability in pasture production and enterprise profitability. To remain economically viable, and to build resilience to droughts, floods and market shocks, livestock producers need to increase profit and equity."

Past impacts of drought in this region

Through our engagement, research and the examination of historical data, together we have been able to build a detailed 'story' of the past impacts of drought in the Central West region.

People, culture and community

"In drought you don't know when the band will snap… there's a rubber band effect of being stretched but bouncing back over a long period of time… but eventually the band snaps."

— School principal

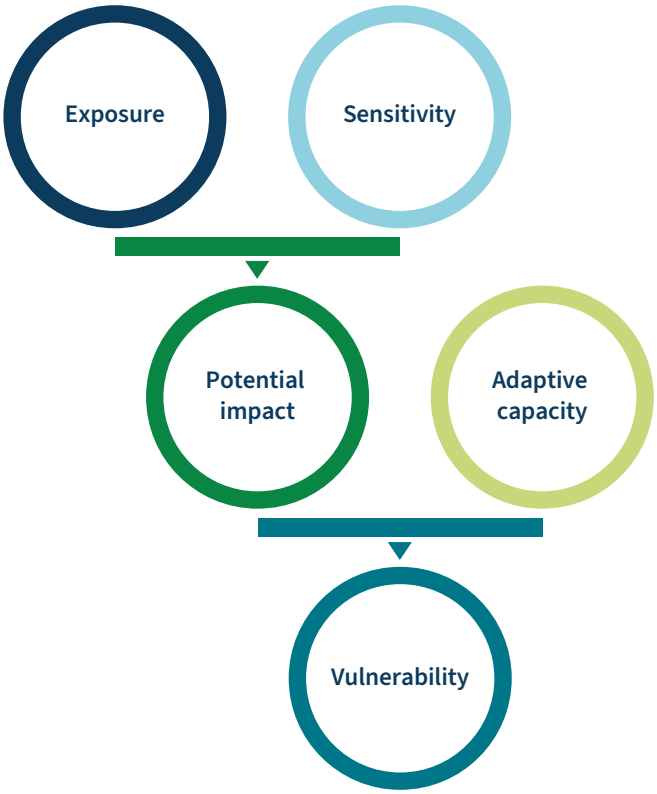
Having strong, 'healthy' and 'vital' communities is central to building drought resilience in the Central West. The strength and health of the economy and landscape is intrinsically linked to the people and their communities. Community feedback, government reports and statistical evidence all point to a decline in the health and vitality of people and their communities during times of drought.

In a 2012 report to the Murray-Darling Basin Authority, ABARES (2012) proposed the following framework as a useful way to understand community drought vulnerability and drought resilience.

The exposure is the level of stress or change that may be faced by a community (such as a drought) and their sensitivity relates to their dependence on the factor that is changing (e.g. rainfall or water supplies) – these combined determine the level of impact. However, the community's adaptive capacity or resilience can mitigate some of the impacts and hence reduce their level of vulnerability. Community feedback, government reports and statistical evidence all suggest the 'vitality' of the community is a critical factor in their capacity for local drought resilience.

While there is no definitive list of the factors contributing to community vitality, there is general consensus it includes such indicators as growth/decline in population, availability/diversity of local employment, 'connectedness' and participation in community groups/events, access to knowledge, ideas and advice, evidence of community 'pride', community health (physical/mental), local investment, availability of affordable housing, 'liveability' and 'local amenity', community governance and leadership, cultural identity, subjective levels of 'wellbeing', levels of security crime and conflict. The McConnell Foundation (2017)[39], summarises community vitality as: "Creative Placemaking; Fostering 'Local'; Future Readiness; Active Lifestyles and Civic Engagement."

Figure 21: Drought Vulnerability Framework.[62]



All these factors affect the 'adaptive capacity' of communities and their drought resilience. Many of these factors were highlighted through our review of outside 'expert' knowledge (data and reports) and through our engagement in the region (interviews, meetings and comments). Some may be considered 'chronic stresses' increasing the impacts of drought. There is evidence drought is recognised as a "normal part of life" in the Central West region and to a certain extent the experience of drought is less 'shocking' than other regions. However, there is also evidence drought has had a noticeable impact on a number of factors and therefore clear action should be taken to address these factors – addressing the negative and enhancing the positive – in order to strengthen community drought resilience for the future.

One question is whether the effects of drought are significant enough to cause population declines in the region, as seen in Figure 22. This has been tested by overlaying population levels with average regional rainfall (Figure 23). There appears to be little correlation between these variables, so it appears other factors are causing the long term population decline in the region.

"It is well recognised that the amount and timing of rain in an area are not the only drivers of crisis in rural areas".

– Community Centre Manager

Figure 22: Long term population changes by LGA in the Central West.[63]

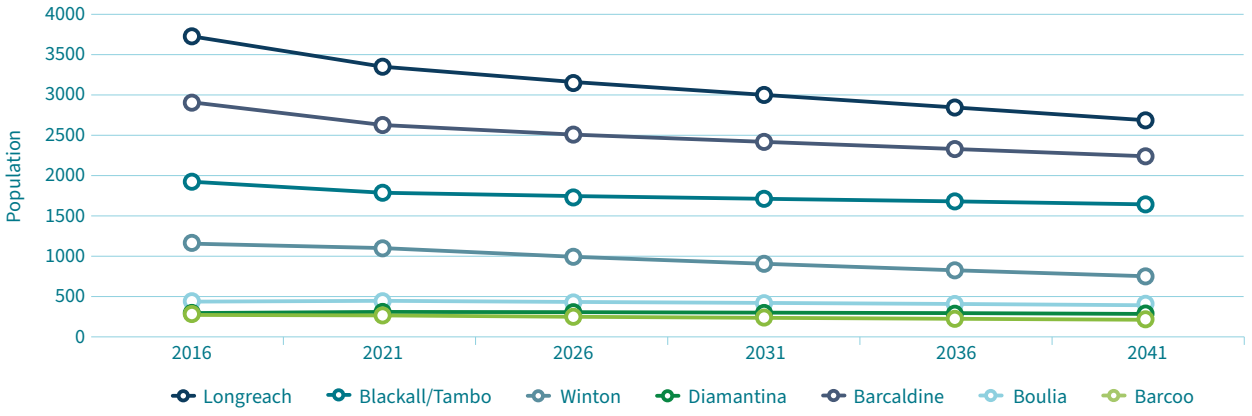
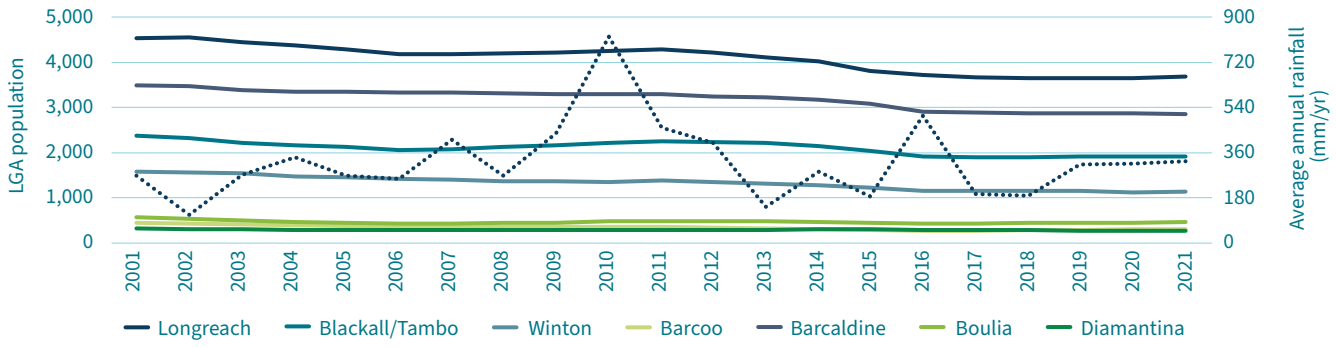


Figure 23: Testing the relationship between average rainfall and population changes.[64]



'Community wellbeing growth would be a useful resilience focus.'

– Local grazier

It is expected the current wellbeing of communities provides a good indication of potential resilience to future droughts. The Regional Wellbeing Survey [40] revealed for Central West Queensland the average score for the "Personal Wellbeing Index (PWI)" was 72.3, slightly higher than the national average of 71. Similarly, respondents from the region expressed a "Global Life Satisfaction (GLS)" level of 75.2 that was higher than the national average of 71.4. Respondents recorded higher than national scores for personal topics such as: 'sense of achievement', 'quality of relationships', 'sense of safety', and 'meaningfulness of life'. However, the results show many respondents had experienced personal 'financial distress' in the last 12 months and their satisfaction with health and mental health was slightly lower than other regions. This was echoed by lower rankings for 'community financial wellbeing' and 'local businesses doing well' and a noticeable score for 'people leaving the community'. The broad topic of 'Access to Health and Education' produced a noticeably low score. 'Access to specialists' (both general and mental health) was deemed to be very poor and 'access to schools' was low, but similar to many other regions with smaller rural centres. Infrastructure, especially roads were deemed to be of low quality and 'access to public transport' was very limited. Nevertheless, Central West respondents scored their community highly for: 'great place to live'; 'sense of community'; 'community leadership'; 'community copes well'; 'faith in local decision-makers'; 'opinion of local government'; and the consensus their community offered everyone a 'fair go'.

Results from the Regional Wellbeing Survey paint a picture of a region where people are generally "happy with their lot" and have a strong sense of community as well as faith in their community leadership and institutions. Nevertheless, the personal reflections indicate household financial stress (and the appearance of poor financial health for local businesses) may be a significant contributor to mental health issues and an overall lower general health. Declining populations are very noticeable to those that are left, and quality of infrastructure is an area specifically nominated for improvement. "People leaving farms and rural regions" were also one of the factors affecting both personal and community drought resilience by former Drought Commissioner Major-General Stephen Day at the 2018 Mental Health Roundtable [41] in Longreach.

Rural and Remote Mental Health – Queensland reported in 2008 that *"Due to the reliance on primary industries in rural and remote areas, climate variability is the factor that has the greatest influence on the stress levels of individuals in rural and remote areas".* Evidence in recent years clearly shows drought exacerbates chronic stresses and underlying issues such as legal and financial problems, medical and health problems, alcohol and substance abuse, isolation and social withdrawal, breakdown of relationships, and in the worse cases – instances of self-harm and suicide.

Figure 24: Area Health needs assessment 2022–25.[65]

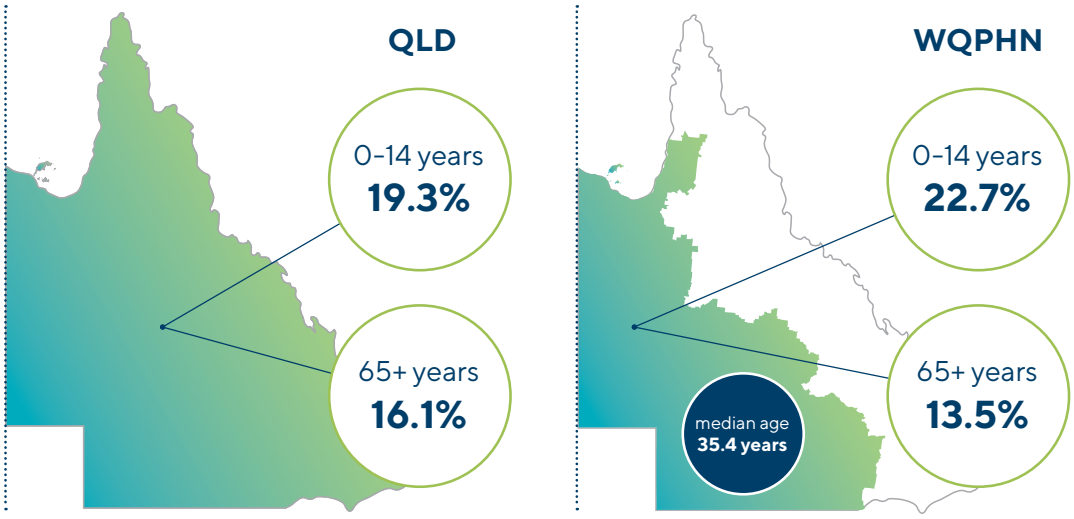


Image: Winton main street. *Source: Winton Shire Council.*

Interestingly, the Western Queensland Public Health Network (WQPHN) region – of which the Central West region is a major part – has a younger age profile than the rest of Queensland. Sadly, this also translates into higher incidents of mental health issues in younger people: 17% of 4–11 year olds and 16.6% of 12–17 year olds have been diagnosed with a mental illness. In adult males, suicide is the fourth highest cause of death in the WQPHN region and instances of suicide are 2.18 times the national average. While there is no proven direct causal link between these figures and the periods of drought, 'mental health' was an issue that was a key feature in many of our engagement discussions. The uptake on government support services such as the Rural Financial Counsellors has been very positive, but the uptake on mental health services still suffers due to a community stigma – particularly among men.

"There's a sense of fragility… just how long can you hang on?"

— Community member

Aboriginal/First Nations people make up a significant (approximately 12.5%) and important section of the region's population. The adverse social, health and economic impacts of drought on the Aboriginal/First nations people of the region 'magnifies' many of the chronic and endemic issues they already face. This is particularly true for issues such as health, education, access to services and employment. This was borne out in observations during our engagements.

Economy

"Some graziers just lived on hope in the drought… simply hoping that it would rain"

— Stock and Station Agent

'We need to make an environment where jobs are maintained even in downturn or droughts.'

— Survey participant

The economy of the Central West region has been traditionally focused on agriculture – therefore, drought impacts farming and agricultural supply-chain businesses most significantly. In recent decades, farming practices have changed to deal with drought and climatic impacts, new agricultural 'industries' have emerged, and farm businesses and households have diversified their incomes. However, the region still remains critically vulnerable to drought and a lack of water. The Australian Institute of Company Directors reports, "on average… over the past 50 years, Australia's real gross farm product has declined by 27.5% during droughts, measured from the peak quarter prior to the onset of drought to the lowest point during or after the drought"[42] (2018). Adaptive measures and changes in farming practices continue to mitigate some of the impacts during drought, and increase farm yields in 'non-drought' periods, but much of the Central West region remains particularly economically vulnerable to drought (Figure 25).

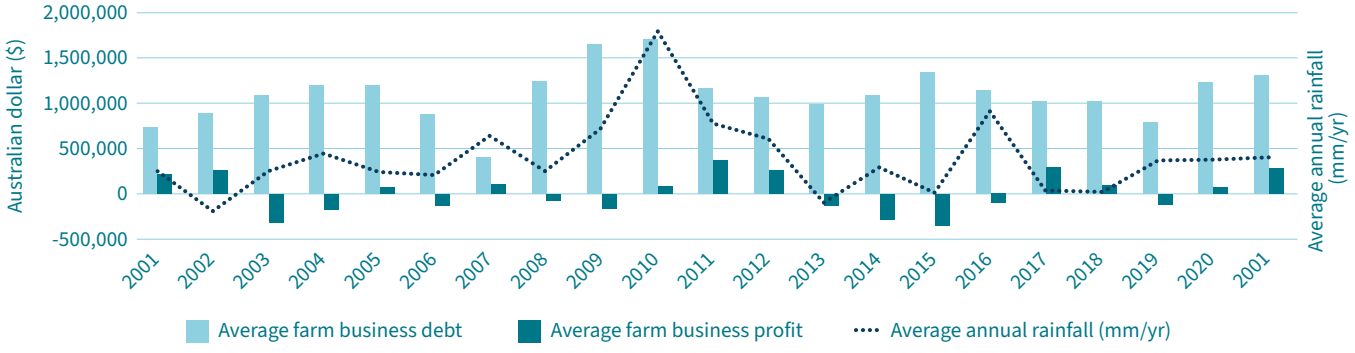
An analysis of the western and southwestern Queensland ABARES-generated farm business debt and profit statistics for the 2001–2021 period shows a relatively close (lagged) correlation between profitability and rainfall. Farm debt also fluctuated extensively but the correlation with annual rainfall was not as obvious as profitability.

There are a range of influences contributing to the full impacts of drought on the economic vulnerability of agricultural enterprises, agricultural supply-chain businesses, local community businesses/services and rural communities.

"The impact on drought-declared primary producers, of kangaroo and wild dogs in pest proportions; ongoing demands of livestock management without incoming revenue; the variability of drought cycles; a flow on impact from the ban on live cattle export and the declining value of rural property balanced against debt drawn down in better times have already been well documented, (including in previous "Drought and Poverty in Central Western Queensland Reports"[43]), along with the ensuing vulnerability of rural and regional communities to the impact of drought." (Centacare 2017).

The local government areas covered by this RDR Plan – Barcaldine Regional Council, Barcoo Shire Council, Blackall-Tambo Regional Council, Boulia Shire Council, Diamantina Shire Council, Longreach Regional Council and Winton Shire Council – collectively are all members of the Remote Area Planning & Development Board (RAPAD). Towards the final stages of the most recent drought, the RAPAD Annual Report 2015–2016 noted the Central West region was *"[hopefully]… at the start of the end of one of the worst droughts in our history of white settlement here in the Central Western area"*.[44]

Figure 25: Farm business debt and profit for the West and Southwest ABARES statistical region.[66]



The report goes on to describe:

"This drought has impacted on the region significantly and has affected not only the agribusinesses but also the towns businesses and communities as a whole. We have seen large areas of Central West agricultural land completely destocked, in some cases for the first time in those properties' existence. Town businesses in some cases have experienced up to 40–50% decline in turnover, and in some towns, sizable percentages of the population have left in search of employment and other opportunities". [45]

In 2021, ABARES conducted a nationwide survey [46] of farm practices related to natural resource management (NRM) and drought resilience and preparedness. The survey included questions on management practices relating to farm financial diversification, farm planning and management, and the use of NRM and other farming practices. From 478 farms surveyed in Queensland (including from the region) the results indicate recent drought has driven financial and land management practice change in many farming enterprises. Many farms and properties have been forced to decrease their reliance on a single source of agricultural income through the diversification of income streams. This is being achieved through seeking off-farm income as well as introducing a wider range of agricultural activities on farm.

The ABARES 2021 survey found:

- "Over the last 3 years, an estimated **34% of farms diversified their agricultural enterprises** to increase their resilience to drought, while 38% increased their non-farm income.
- Around **64% of farms had some non-farm income,** on average over the last 3 years. Of those farms, the average proportion of household income from non-farm sources was 41%, making many farms well placed to deal with a short-term downturn in farm income.
- Approximately **4% of farms received payments for environmental services.**
- However, **only an estimated 36% of farmers had a written farm plan with business objectives.** Of those plans 79% included drought strategies and 88% included other farm risks."

Image: Sheep producer. *Source: RAPAD.*

"It's usually the lack of rain along with other compounding factors – e.g. financial pressure and making poor financial decisions – that inflame the drought situation"

– Agforce member

During our engagements, many people spoke of how the drought highlighted a lack of financial planning, indeed, a lack of business planning generally, amongst primary producers. There were many, common stories of a lack of financial literacy, poor business planning, lack of market understanding, inability to make strategic decisions and *"plan for the bad times in the good times"*, and not just among farmers but some of the 'town businesses' as well. On a positive note, almost unilaterally, people had nothing but praise for the Rural Financial Counsellor (RFC) program and the practical advice and support that the RFC's gave, along with their personable approach and the value of *"… being able to talk to a human being"*.

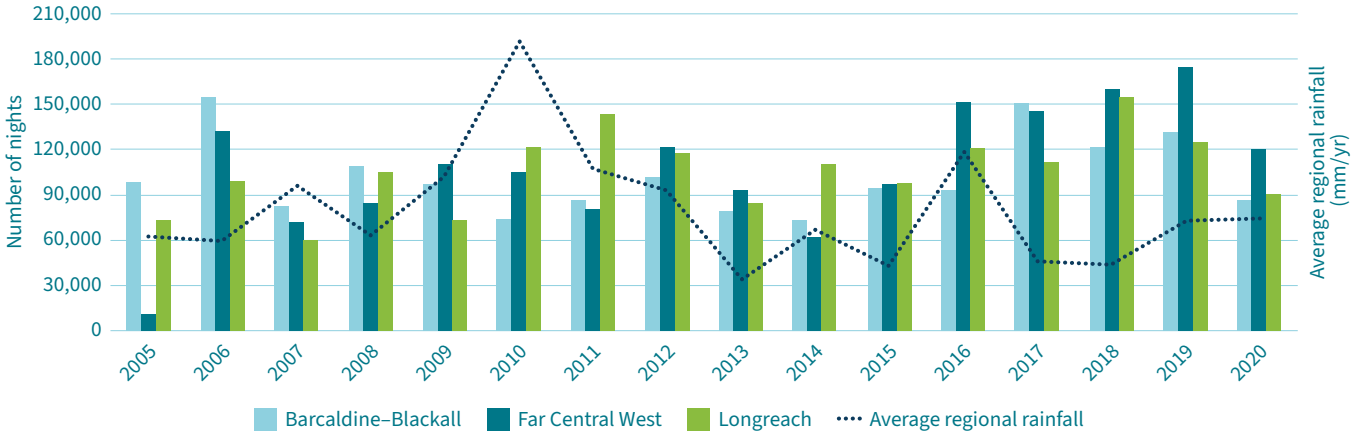
In a recent study into the impact of drought on town businesses in Central West Queensland [47] it was noted how the flow-on effects of drought influence both social and economic characteristics of the region: *Drought causes loss of employment for both rural and town workers, worker relocation, and reduced income for small businesses. The economic decline impacts on the social fabric of the community, and this in turn tends to exacerbate the economic environment. Six key interacting factors link drought to reduced socioeconomic resilience*[48] *that stem from the reliance of small business on rural expenditure:*

- *Cash drought*
- *Reduced small business incomes*
- *Population drought*
- *Services decline*
- *Reduced liveability*
- *Reduced socioeconomic resilience.*

The data from the qualitative survey reported in Kelly (2018) confirmed local perceptions (and anecdotal evidence) that all these impacts were experienced due to recent droughts. Interestingly, it was also noted the well-meaning 'support and relief' activities of many charities had a negative economic impact on local businesses – as many charities purchased goods and services from outside the Central West region.

Image: Tourist cruise on the Thomson River, Longreach. *Source: Tourism and Events Queensland.*

Figure 26: Central West Queensland estimated domestic overnight and international visits per year 2005–2020 (Stafford Strategy).[67]



"Drought is a leveller and most people end up at the bottom of the curve regardless of management practices. Need to shift thinking from bottom of the curve to resourcing at the top of the curve where same money does more – traditional government subsidies and support given at bottom of the curve would have been more impactful at the top of the curve"

– Community leader

However, not all news was bad, and there is some evidence of economic shifts in the region that may lead to increased regional resilience in the future. While agricultural production declined significantly due to drought, from approximately 50% of the regional economy in 2013[49], to 25% in 2017[50], tourism has increased in value approximately 7% per year (average over 2014–2017) despite the region being in drought. Regardless of the significant disturbances caused by the COVID-19 epidemic, recent signs are tourism is on the rise and will continue to grow as a source of both income and employment in the region.

"It's very hard to be green when you are in the red."

– NRM organisation

In the Central West region, the growth of the 'feedlot cattle' industry has increased rapidly during drought years as a way of both mitigating drought impacts for pastoralists and also as an alternative livestock-raising model in the region. Feedlot expansion in the Central West region continues at a high rate, with capacity increasing from an estimated 375,899 to 581,247 head in the 15 years between 2006 and 2021. This involves new feedlots as well as increasing capacity of existing feedlots. The feedlots also support important supply-chain industries (especially road transport, construction and feed supplies) providing much-needed employment in the region.

In recent years, what is broadly termed 'carbon farming' has been touted as an alternative source of income for farmers in the region. There appears to be potential for these activities to not only produce environmental outcomes but also provide important sources of income for local landholders. Currently, it is generally believed simply 'locking up the land' for carbon sequestration can have observably negative effects on some rural communities – contributing to a decline in populations and subsequent diminishing of services, a lessening of agricultural practices such as grazing, problems with landscape management, and an increase in weeds, pests and feral animals. While a recent study from the South-West Region of Councils (SWQROC) has suggested there are more positive outcomes from carbon farming for both landholders and the broader community, there is more work needed to both understand and 'market' the benefits in the Central West.

Image: Tourists visiting Birdsville. *Source: RAPAD.*

Recently, a Western Queensland Mayor was reported in 2020[51] as saying:

"Some of our pastoralists have a portion of their land under carbon farming and that provides another income stream and provides capital for investing and assists with a bit of income during drought and we have no argument with that… Our issue is the absentees who buy properties, lock them up and walk away… We have got a large number of those and that's where we feel the impact".

Many in the region have spoken at length about the need for increased efforts to:

(a) encourage more diversified on and off-farm income for primary producers
(b) diversify businesses and employment opportunities generally in the region
(c) explore opportunities for 'mixed' land use between agricultural activities and 'carbon farming' and/or renewable energy production.

An example of an initiative to diversify the economy is the development of the Blackall Wool Scour which has progressed past the 'concept' stage to the 'attracting investment' stage.

Landscape and natural environment

"No water, no life"

– CWA member

Traditional owners of this region managed the country by living with the landscape, including through drought events. First Nations people have survived and thrived in this landscape for thousands of years. Kerwin states, *"As with all societies, technology, development, and land management systems were used to harness local environmental conditions so as to provide and enhance a way of life"*[52]. In recent times it has been recognised that stemming the loss of traditional land management practice knowledge, and sharing this knowledge in a culturally appropriate manner, will help in building more drought resilient landscapes and communities of this region.

Since 1999, modelled annual pasture growth has been used as a primary indicator of the severity of drought conditions. Annual pasture growth is influenced by rainfall (amount, timing, and intensity), temperature, radiation, and soil condition and moisture. The relationship between pasture growth and rainfall for the eastern, central and western shires in the region is summarised in Figure 27. This demonstrates the very strong relationship between rainfall and pasture growth, and shows pasture growth diminishes with the western location of the shires.

Some long term reductions in pasture growth can also be identified from the data, perhaps indicating the effects of some longer term degradation of pastures and soils (Figures 28 and 29). For the 2001–2021 period, the eastern half of the Central West region's average monthly pasture growth has declined more than the western portion of the regions when compared to the 1890–2021 period.

Image: Barcoo River. *Source: RAPAD.*

There appears to be a strong correlation between ground cover and rainfall with the lowest ground cover percentage occurring during low annual rainfall periods. Total ground cover is commonly used as a basic indicator of land condition. There are other indicators which may be masked by using ground cover to determine land condition such as pasture composition and the trend in perennial and annual make up of that pasture.

Invasive weed infestation of the region is a major production and environmental issue. Weeds have an ability to quickly establish bare areas, particularly after drought periods. Figure 30 provides a snap shot of one of the Weeds of National Significance, Prickly Accacia, that is found in the Queensland portion of the Lake Eyre Basin. The table reflects the results of eradication programs which are being implemented across the region and are reducing the extent of the weed.

Figure 27: Average annual monthly pasture growth with average annual rainfall.[70]

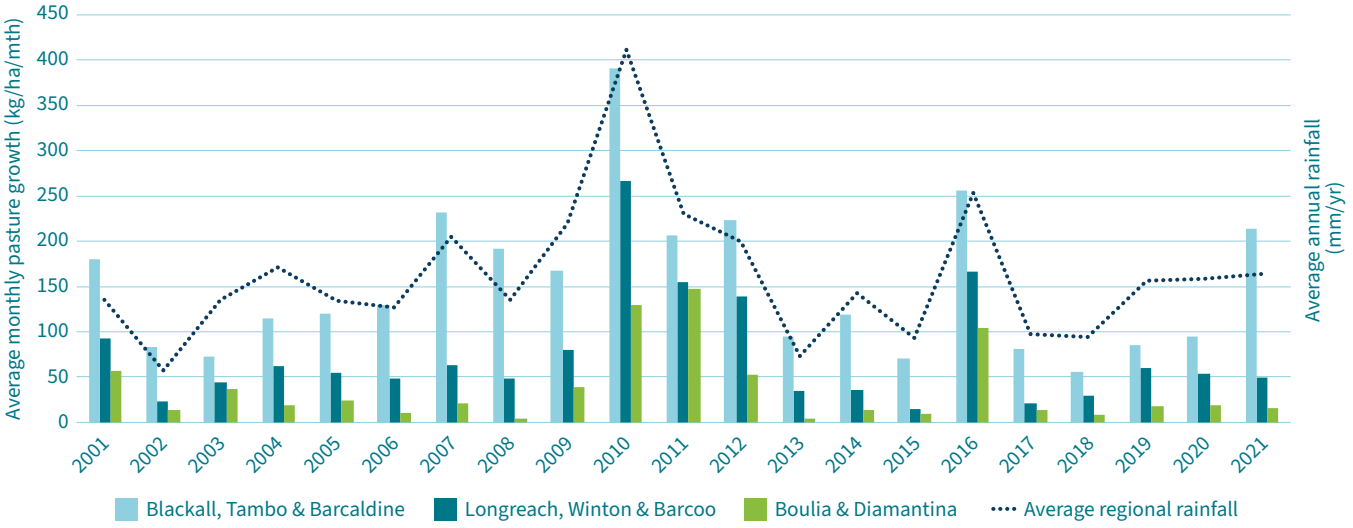


Figure 28: Average monthly pasture growth.[68]

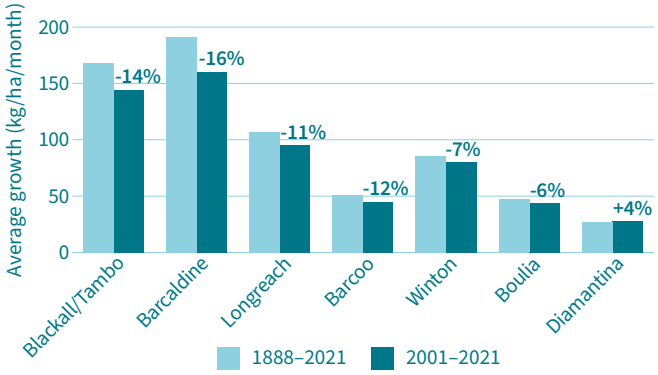


Figure 29: Total ground cover and monthly pasture growth of pastures and forbs for the region.[69]

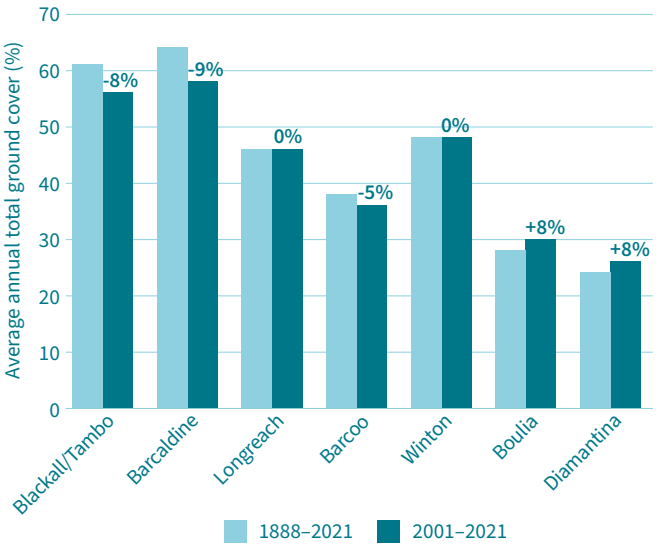


Figure 30: Data compiled by Desert Channels Queensland for Hall Chadwick Prickly Acacia Benefit Cost Report.[71]

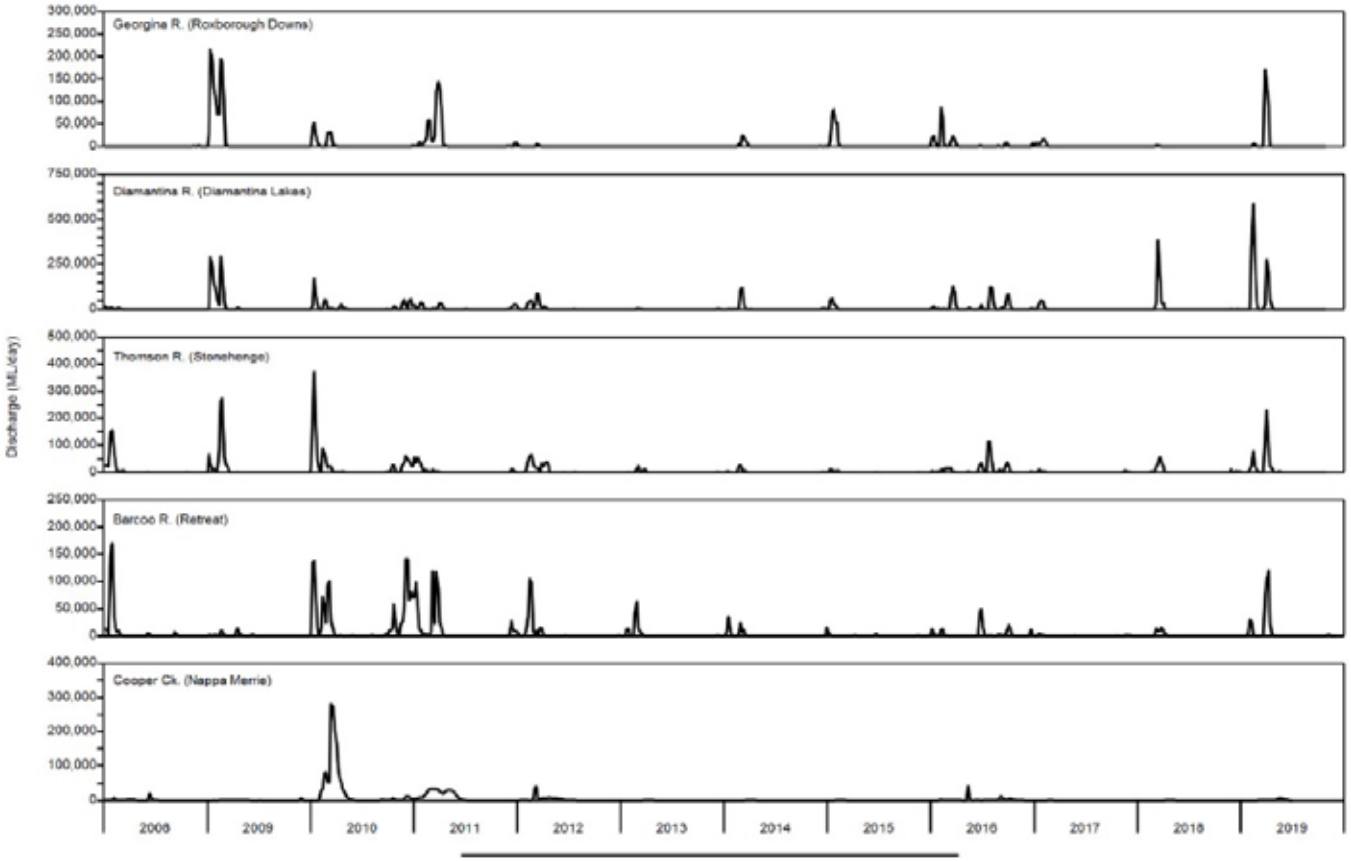
	1996	2015	2020
High Density	–	818	405
Low Density	–	22,158	21,096
Total	2,002	22,976	21,664
% of region impacted	4%	46%	42%
Area unaffected	47,932	26,958	28,865
Total area of region	49,934	49,934	49,934

The river systems of the region are highly transient where waterholes move through a cycle of being full and dry. The ecosystem has evolved around this wet and dry cycle. There are permanent waterholes dotted along the rivers which provide important habitat as well stock water and supplementary water for some towns. The waterholes have strong cultural importance to the Traditional Custodians of the region. Under the projected climate conditions, the persistence of these waterholes is projected to decrease with a medium level of confidence. This poses a significant risk to aquatic ecosystems and waterhole-dependent users.

Another major threat to waterhole persistence is sedimentation being mobilised from surrounding landscapes and ending up in waterholes. This particularly occurs because of heavy rain events and is magnified if this occurs when paddocks have low or no ground cover – as often is the case with drought breaking rain events. The transitory patterns of the major watercourses are depicted in Figure 31.

Image: Braided river system. *Source: RAPAD.*

Figure 31: Daily discharge rates for major rivers of the Queensland portion of the Lake Eyre Basin (Climate Change Effects on Waterhole Persistence in Rivers of the Lake Eyre Basin, Australia.[72]



The ability of native terrestrial fauna to survive the impacts of drought is dependent on their access to healthy and diverse refuge areas sufficient in both size and connectivity. The total extent of remnant woody vegetation (trees and shrubs) for the Central West region in 2012 is shown in Figure 32.[53] Although there have been many improvements due to legislation, voluntary uptake of carbon and environmental offset markets, and funded NRM programs, the biodiversity health improvements achieved through the increased revegetation of the landscape have been constrained by extensive tree deaths resulting from extended periods of drought.

The percentage of remnant native vegetation of the region is comparatively very high when compared to most other Queensland regions. The level of remnant clearing in the 2013–2019 period for the Blackall Tambo and Barcaldine shires was higher compared to the periods before 2013.

Figure 32: Percentage of remnant vegetation and average annual clearing rate (1999–2000) for central western Queensland shires.[73]

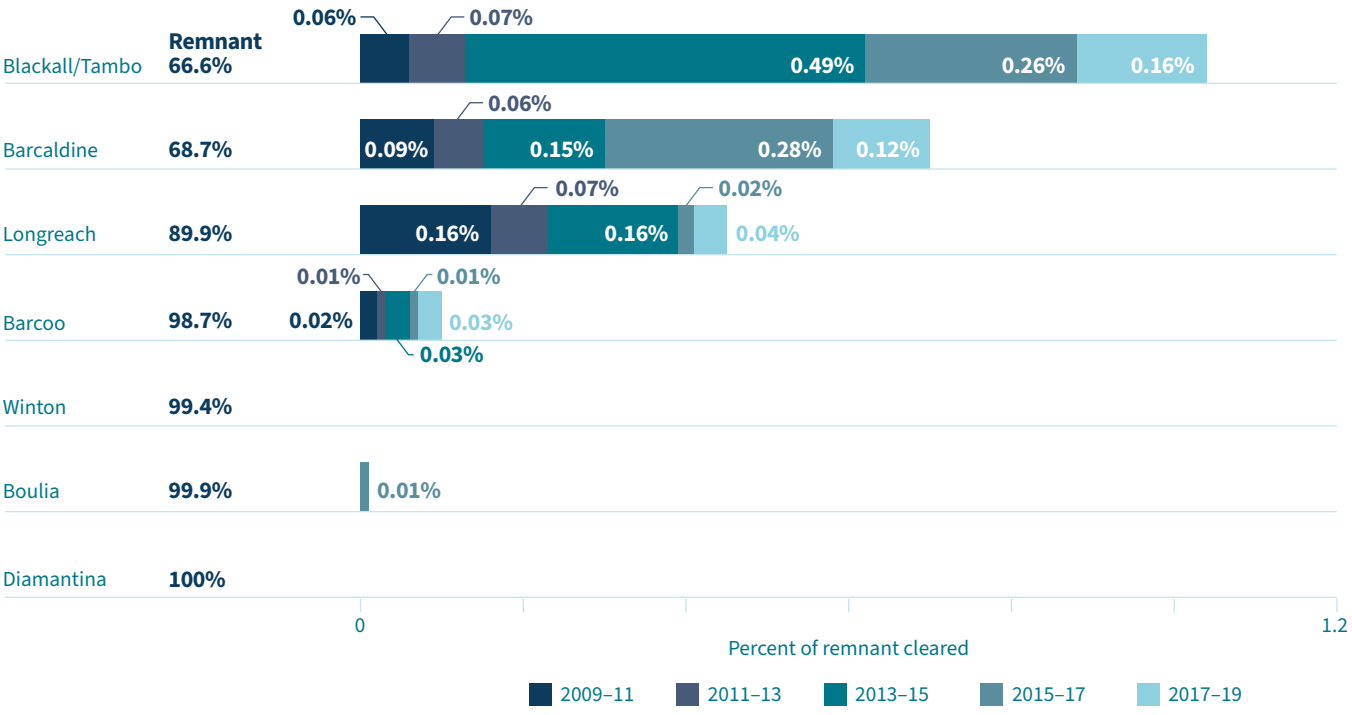


Image: Barcaldine common dry grass. *Source: RAPAD.*

Infrastructure and built environment

"Water infrastructure grants [were one of things done well] because they enabled people to improve their properties… they were great as it was 50% all of the cost… The desilting dams grants is also another good example where they gave a direct dollar figure"

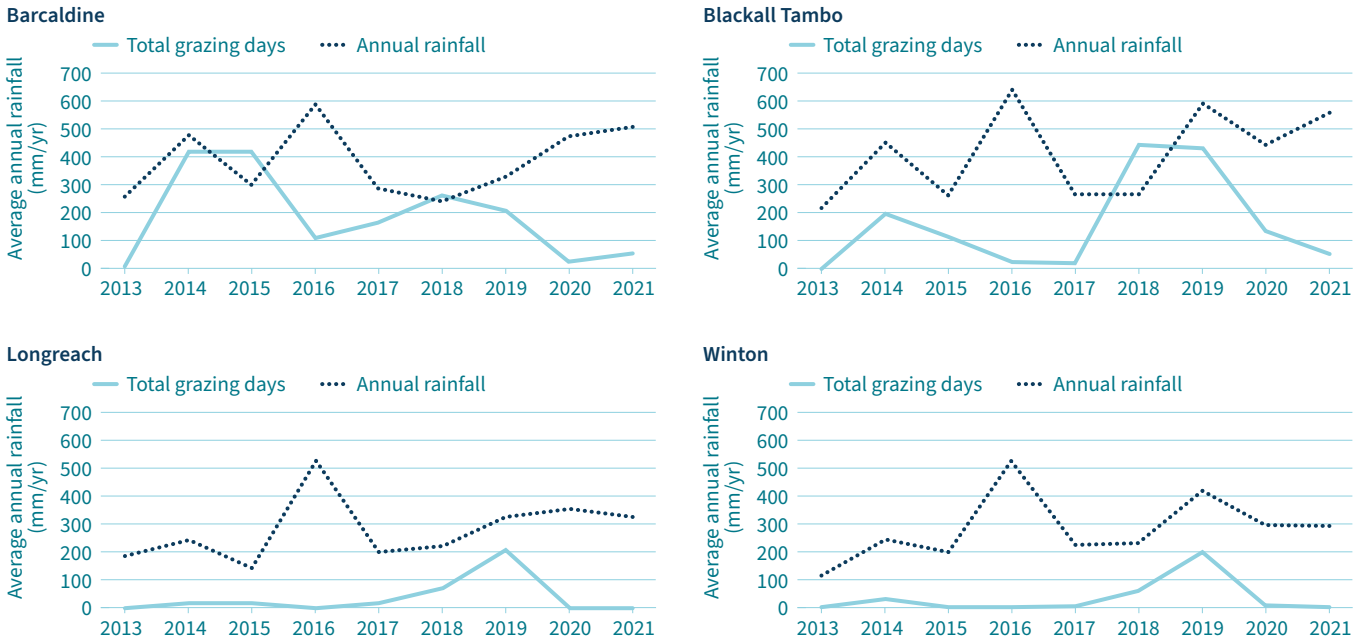
– Local banking adviser

Infrastructure takes many forms – including physical infrastructure such as roads, rail lines, water storages/structures, buildings, weather stations, communication towers and other utility services, as well as non-physical infrastructure which supports digital connectivity.

Stock routes are an important asset of the region that are a combination of environmental and built infrastructure. Stock route use for the four shires which carried the majority of traveling stock are summarised in Figure 33. Stock route use was measured in grazing days, which is a measure of the total number of days travelling stock are grazed on the stock routes. If two mobs are on the same stock route at the same time, the grazing days will be doubled for that period. Results show only limited relationships between stock route use and rainfall, which indicate stock routes are not only used for drought relief.

For some categories of infrastructure, the harsh physical effects of drought (i.e. increased heat and little or no moisture), can have significant impact on their condition (i.e. road surfaces, wooden and metal structures, painted surfaces, earthen-based structures etc). For most infrastructure, the most significant impacts of drought come from lack of funds for infrastructure investment and/or maintenance, and decrease in available (or able) personnel to carry out construction and/or maintenance. On-farm improvements or maintenance are often neglected, avoided or postponed and the upkeep of 'in-town' community infrastructure is sometimes neglected or abandoned. Drought frequently causes a reduction in investment (both public and private) in new infrastructure 'in town'. Drought may also result in increased use of some infrastructure such as roads and rail. This is particularly relevant to the Central West roads system.

Figure 33: Stock route use over time (grazing days).[74]



Surface water in the region comes from the Georgina, Diamantina, Cooper Creek and Burdekin catchments, with groundwater sourced from the Great Artesian Basin.[54] Allocations are governed by several water management plans, including the:

- Water Resource (Great Artesian Basin) Plan 2006
- Water Resource (Georgina and Diamantina) Plan 2004
- Water Resource (Cooper Creek) Plan 2000.

The Lake Eyre Basin Intergovernmental Agreement between the Commonwealth of Australia, the State of Queensland and the State of South Australia is of relevance to the region, as it restricts the future withdrawals of water to maintain the sustainability of natural systems.

The Central West region's catchments have large volumes of unallocated water (over 50% in the Georgina and Diamantina Catchments) coupled with a very low proportion of resource allocated to productive use (Tables 1 and 2).

Table 1: Surface Water Catchments – Resource allocation and utilisation.[55]

Surface water and catchment	Current allocation (ML)	Unallocated water (ML)	% Resource allocated	Under allocated water (ML)
Georgina & Diamantina	7,108	13,500	0.3%	677,311
Cooper	17,788	2,200	0.3%	560,013
Burdekin (Belyando-Suttor)	82,425	139,200	13.8	0
Total	103,084	154,900	-	1,237,324

Table 2: Groundwater Basin – Resource allocation and utilisation (ML).[56]

Groundwater sub-Basin	Current allocation	General reserve	State reserve	ATSI reserve	Total
Betts Creek Beds	0	0	1,500	45	
Galilee Clematis	605	455			
Eromanga Cadna-owie	150	1,545	16,400	190	
Eromanga East Hooray	1,450				
Eromanga North Hooray	2,719				
Eromanga South Hooray	4,818				
Eromanga West Hooray	315				
Eromanga Precipice	150	365			
Eromanga Wallumbilla	567	0			
Winton Mackunda	104	0			
Total	10,878	2,365	17,900	235	20,500

Water security issues vary across the region, with different townships facing a variety of challenges. Longreach draws its water from the Thomson River, and river flows can be uncertain at times, as well as the river being affected by high evaporation rates during hot weather. Around the Central West region, other communities draw their water from the Great Artesian Basin via bores. In all areas, the age and condition of water infrastructure assets is a topic of constant discussion and concern. Many properties in the region rely on their own, on-property water supply for potable water. Agricultural water is sourced from waterways and bores, and the currently small amounts of 'industrial' water are usually considered part of 'town water' supplies.

Most of the area (if not the human population) of the Central West region is not serviced by government water supply schemes, and properties rely on their own rainwater tanks, dams, bores and some pumping from rivers and creeks. Project engagements revealed several promising on-farm initiatives relating to topics such as water efficiency, recycling, soil moisture enhancement, better irrigation, and water and vegetation management. Many of the government drought support schemes (e.g. Queensland Drought Preparedness Grants and Drought Ready and Recovery Finance) support improvements and/or upgrades to infrastructure to improve water security.

In partnership with the Queensland Government, many of the local governments in the region have undertaken 'Regional Water Supply Security Assessments' and a Regional Water Strategy[57]. Many of these highlight the deteriorating condition of water infrastructure, the frequent need for water restrictions, and the high costs of (and needs for investment in) maintenance and expansion. RAPAD[58] identified future water demand is likely to come from the following areas:

- Mineral mining and processing.
- Irrigated agriculture (including production of fodder for drought preparedness).
- Production of green hydrogen for heavy transport.
- Geothermal energy production (this opportunity is a closed system and does not extract water).
- Blackall QWool project.
- Barcaldine Renewable energy zone.

"Good connectivity is essential for mental health and wellbeing consulting as a broken connection can cause a client to withdraw totally from the process."

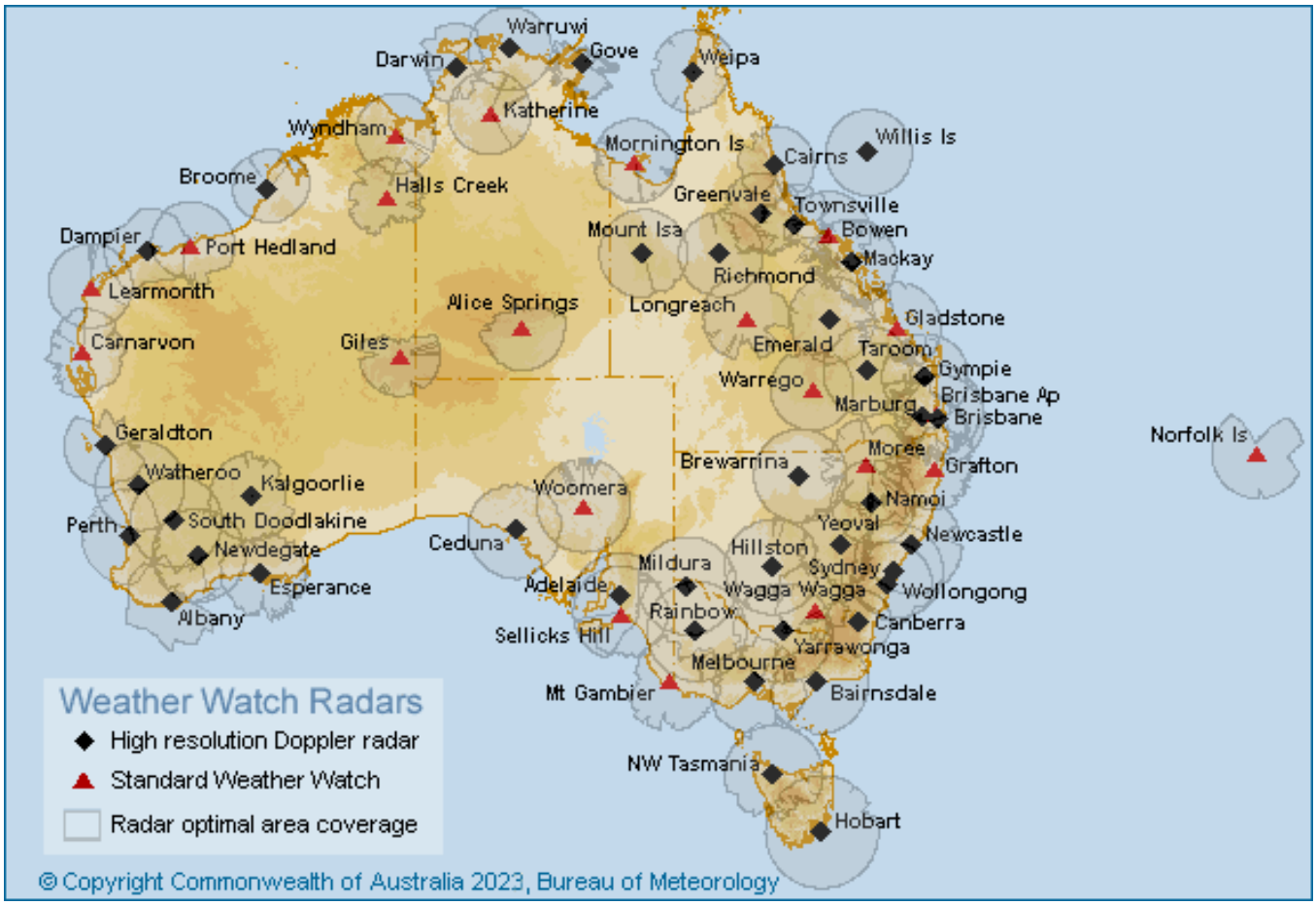
– Mental health professional

The single largest concern across the region is the poor digital infrastructure. This lack of infrastructure is constraining the ability for businesses to start and grow, for the region to economically diversify and increase population. It is also constraining the ability for people in the region to access education, government services and healthcare.[59]

While drought has little or no direct impact on digital connectivity, the most recent drought highlighted the lack of digital connectivity and the flow-on effects on other drought impacts. Mobile blackspots are more frequent in the western and less populated areas and there are many mobile black spots for rural and remote areas within the region. While the region has some areas of 3G and 4G coverage from the 'big three' (Telstra, Optus and Vodafone), for those who are "out of town" and require reliable internet connection, often resort to expensive satellite services such as Starlink.

The importance of good digital connectivity is critical to reduce some of the impacts of drought. Community feedback regarding the importance of digital connectivity is supported by government reports"[60] – one of which states: *"High quality digital connectivity facilitates social inclusion and connects industries to their markets"*. RAPAD produced *The Smart Central West Digital Strategy* in 2017 which nominates a variety of initiatives to improve digital connectivity in the region. Many government support or relief programs often require online applications and/or the proficient use of computers to access forms or information. Even many mental health and counselling services were forced to implement 'telehealth' sessions via the internet as their first option. During our engagements, many people remarked how their general 'community connectivity' and their access to services decreased during the drought as they were faced with either having to access services online (sometimes impossible and often problematic) or faced a long drive to the nearest regional service centre.

Figure 34: Optimal radar coverage (200 km radius from station).[75]



Importantly, it has been identified that having infrastructure associated with measuring climatic conditions is essential for building the capacity of primary producers, and community more generally, to take pre-emptive action leading into drought[61]. An example of this essential infrastructure is the Australian Government's Bureau of Meteorology Weather Watch Radar network that consists of 60 radars across Australia (Figure 34). Optimal coverage is defined by the Bureau of Meteorology (BoM) as within a radius of 200km of the station. The eastern portion of the Central West region generally has adequate optimal radar coverage, but optimal radar coverage for the western portion of the region is lacking.

Likely future impacts (risks) of drought in this region

The future likely impacts of drought will also be shaped by the compound effects of a range of extreme shocks. The Central West region is affected by national and global 'megatrends', which may exacerbate and compound the effects of drought, yet also present opportunities for action and improved drought resilience. Such 'megatrends'[76] include 'global warming', climate change and increased climate variability (and costs to humans and infrastructure), an overall ageing population and an ageing (and diminishing) agricultural workforce, decreasing availability of productive agricultural land, increasing global demand for (safe) food, an escalating risk from viruses and antibiotic-resistant bacteria, increasing concerns about global human migration, concerns about the geopolitical status and regional and global security, decreasing rural populations, decline in housing affordability, and increasing infrastructure maintenance costs. A critical megatrend directly affecting agriculture and rural and regional communities is the global transition to low carbon economies and the consequent uptake of low greenhouse gas (GHG) emission technologies for commodities, on-farm energy and supply chain logistics.

Future impacts

In 2015, CSIRO released projections of climatic changes for the Australian Rangelands[77]. Of relevance to this plan are the projections relating to the frequency and severity of future droughts. Under a high greenhouse emissions scenario, the projection is droughts will become more frequent and have longer duration. However, under a low emissions scenario, the time in and frequency of drought is less clear. Under all scenarios, there is a high level of confidence there will be more extreme hot days and greater levels of evapotranspiration. Irrespective of the future predictions under varying emissions scenarios, what can be assumed with certainty is droughts will continue to impact significantly on the Central West Queensland region. It is on this assumption the future drought impacts have been identified.

An analysis of future drought impacts (under a climate change scenario) on People, Economies, Landscapes and Infrastructure has been carried using a risk framework[78]. The Risk Rating Matrix is used to provide generalised meaning to the way the risks are characterised.

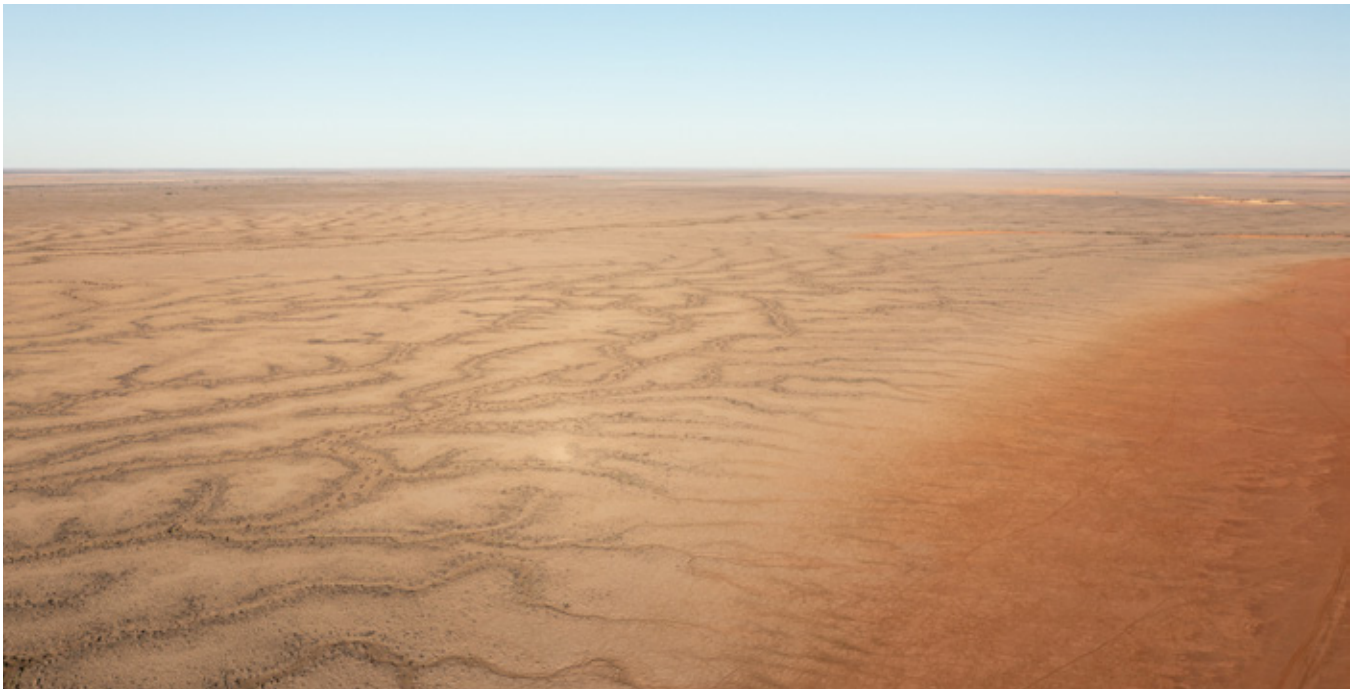


Image: Drought conditions. *Source: RAPAD.*

The three risk categories reflecting increasing severity of consequence are:

- Management risks
- Disturbance risks
- Disruption risks

These have been defined as:

Management risk
This category of risk anticipates management within Business as Usual or ecological natural variation – e.g. adjusted hot weather working patterns, local business downturn, or supplementary feeding of stock.

Disturbance risk
This category of risk anticipates a significant adjustment to established operational responses or ecological function – e.g. infrastructure damage, local business hardship, crop loss, or destocking to core breeder herd/flock.

Disruption risk
This category of risk anticipates the transformation of established patterns of activity, settlement or ecological function – e.g. infrastructure loss, local business failures, repeated or unreplaceable crop or stock loss.

The Assessment's Risk Rating Matrix uses three levels of likelihood of occurrence during the next 10–year risk horizon (~2030): 'Unlikely', 'As likely as not', or 'Likely'. They also use three categories of consequence: 'Recovery', 'Adjustment', and 'Transformation'. This produces a suite of nine risk sub-categories – high, medium and low within each of the three categories.

For the first pass of risk rating, all risks have been assigned a default rating of 'Management risk – medium'. By default, all identified risks are assumed to be as *likely* as they are *unlikely*. It is also assumed recovery from consequential harm/impact can be achieved within established management responses, or within ecological natural variation. The risk rating is adjusted where there is material evidence or supported reasoning the likelihood or consequence of an identified risk occurring is greater than the default. Management risks unlikely to occur in the 10 year risk outlook are not included.

In Table 4, the level of confidence attributed to each risk rating reflects the type of knowledge applied:

- **Published knowledge** is information published in the public domain, primarily on authoritative websites (generally Government).
- **Expert knowledge** is the view of a person or persons who have recognised specialist knowledge of the subject being risk rated.
- **Practitioner knowledge** is the view of a person or persons (who may not also have expert knowledge personally) who is/are recognised as an integrating specialist or having strategic and experiential knowledge of the subject being risk rated.

Table 3: Risk rating matrix.[79]

	PROBABILITY OR LIKELIHOOD		
	Unlikely	**As likely as not**	**Likely**
RECOVERY	MANAGEMENT RISK LOW	MANAGEMENT RISK MEDIUM	MANAGEMENT RISK HIGH
ADJUSTMENT	DISTURBANCE RISK LOW	DISTURBANCE RISK MEDIUM	DISTURBANCE RISK HIGH
TRANSFORMATION	DISRUPTION RISK LOW	DISRUPTION RISK MEDIUM	DISRUPTION RISK HIGH

Table 4: Assessment of risks from future droughts.

At-risk asset (component or process)	Risks		Confidence (Practitioner/ Expert/ Published)
People, Culture and Community			
Local community and networks, incl. vulnerable groups and individuals	**Prolonged drought:** Population decline	MEDIUM	Practitioner/ Expert
	Prolonged drought: Young people leaving the region	MEDIUM	
	Prolonged drought: Exacerbated local issues	MEDIUM	Practitioner/ Expert
	Prolonged drought: mental health issues and suicide	MEDIUM	Published
Business knowledge and practice	**Prolonged drought:** Loss of expertise and experience	MEDIUM	Practitioner
Landscape Care knowledge and practice	**Prolonged drought:** Loss of expertise and experience	MEDIUM	Practitioner/ Expert
Community Events	**Dry Years and Prolonged drought:** Loss of volunteers and desire to attend	MEDIUM	Practitioner/ Expert
Coordination and regional governance	**Prolonged drought:** Inefficient use of time, money and goodwill at a local level	MEDIUM	Practitioner/ Expert
	Dry years and prolonged drought: No 'whole of governments' approach to investment and delivery	HIGH	Practitioner/ Expert
Support services	**All droughts:** declining population results in a decline in services (banks, health services, education services)	MEDIUM	Published
Economy			
Jobs and employment	**Dry years and prolonged droughts:** Reduced availability/ diversity of local employment	MEDIUM	Practitioner
Equity – Business and Assets capital and cashflow	**Dry years and prolonged droughts:** Decreased investment	MEDIUM	Published
Borrowing capacity	**Dry years and prolonged droughts:** Diminished borrowing capacity	MEDIUM	Published
Environmental Credits – payments and accrued liabilities	**Prolonged drought and bushfires:** Loss of sequestered carbon stock	MEDIUM	Published
Insurance	**Dry years and prolonged droughts:** Increased premiums	MEDIUM	Published
Livestock	**Drought breaking heavy rain (overland flood):** Stock losses	MEDIUM	Practitioner/ Expert/ Published
	Dry years and prolonged drought: Reduced stock condition and losses	HIGH	Practitioner/ Expert/ Published

At-risk asset (component or process)	Risks		Confidence (Practitioner/ Expert/ Published)
Landscapes and Natural Environment			
Pastures	**Dry years and prolonged drought:** Reduced pasture condition	HIGH	Practitioner/ Expert
	Dry years and prolonged drought: Pasture composition change with reduction in the preferred perennial grasses	HIGH	Published
Landscape hydration/dehydration	**Aridity:** Drying trend	MEDIUM	Published
Soil erosion	**Heavy rain ending drought (overland flood):** Damage or loss	MEDIUM	Published
Carbon sequestration	**Bushfires:** Loss of carbon stock	MEDIUM	Published
Habitat cycles – ecological structure, function, stability and connectivity	**Loss of ground cover and increased temps:** Reduced competition favouring exotic pioneers (e.g., cactus)	MEDIUM	Published
	Increasing mean temps: Loss of key links or species	LOW	Published
	Overland flood and loss of ground cover: In-stream habitat sedimentation	HIGH	Published
	Dry years and prolonged drought: Increased invasive pest species' extent	HIGH	Published
Ecological resilience to impact and recovery capability/capacity	**Increasing mean temps:** Reduced adaptive capacity eg. fish, amphibians and Reduced extent or effectiveness of refugia	LOW	Published
Groundcover (dust storm and erosion)	**Dry years and prolonged drought:** Reduced condition or loss of living material/all surface material	MEDIUM	Published
Floodplains, riparian areas and wetlands – soils and vegetation (flooding)	**Prolonged drought:** Reduced condition or loss/dieback of vegetation	MEDIUM	Published
	Dry years and prolonged drought: Increased vulnerability to flood	MEDIUM	Practitioner/ Expert
Vegetation types and condition – fuel loads (bushfire)	**Dry years and prolonged drought:** Increased vulnerability to bushfire	HIGH	Published
Stock routes	**Dry years and prolonged drought:** Decline in condition due to increased use and reduction in actively managing SR pastures, pests and infrastructure	HIGH	Practitioner/ Expert
Infrastructure and Built Environment			
ICT and data	**Drought (all):** Increased load on services	MEDIUM	Expert
Water infrastructure	**Dry years and prolonged drought:** Increased demand	MEDIUM	Published
Energy infrastructure	**Drought (all):** Cost and use of energy will rise	MEDIUM	Published
Exclusion fencing	**Drought (all):** Reduced capacity (financial & time) to maintain fences	MEDIUM	

Building drought resilience in our region

Lessons learnt from the past – stories of resilience

"Case studies and stories engage people who are yet to be curious."

– Grazier with a focus on holistic land management practices

Case Study: GroWQ

GroWQ is a regional not-for-profit agricultural economic development group committed to strengthening the agricultural sector in Western Queensland through knowledge, innovation, investment, and networking.

The GroWQ committee actively seek producer insights, valuing their experiences to help create practical learning opportunities and events that are tailored to need and aim to fortify the agriculture industry. The group have held or partnered in a wide range of opportunities including industry roundtables and networking to promote information exchange and foster strategic partnerships, industry specific workshops exploring topics such as goat supply chains, water management, opportunities for sileage, and workshops to support business and the environment – including exploring opportunities for soil carbon sequestration.

Recognising some producers can be slow to adopt new practices and respond best when seeing local or working examples of new ideas, GroWQ plays a crucial role in bridging the gap – exposing producers to innovative ideas supporting the evolution and success of agriculture in the region. Events like GroWQ's Ag Innovation Expo provide presentations of new innovative practices and technology along with trade displays. The line up of presenters is diverse and includes local producers and new innovations of interest.

Image: Longreach GroWQ Ag Innovation Expo. *Source: GroWQ.*

GroWQ has an important role in shaping the sustainable future of the outback though its mission to inspire growth through knowledge, create opportunities for investment, and strengthen the agricultural foundation of Western Queensland.

"CWQ is behind in adoption because of drought. People are surviving and don't have the headspace, time or money for it."

– Adoption officer

Case Study: Jody Brown – Regenerating Rangelands

Image: Regenerative Rangelands event 2023 and Alejandro Carillo grazing workshop at Latrobe Station.
Source: Jody Brown, Latrobe Station, Longreach.

Jody Brown from Latrobe Station Longreach is using her skills and knowledge as a Western Queensland grazier, her background in film and television, and her experience in the Australian Rural Leadership Foundation 'Drought Resilience Leaders Development Program' to focus on climate action and regenerating landscapes to improve soils and pasture and build drought resilience.

Back-to-back droughts prompted Jody and her family to investigate and trial new ways of working with the environment and climate to their best advantage. The opportunity to speak with inspiring Mexican rancher Alejandro Carrillo, a well-known advocate for arid rangeland regeneration on a larger scale, encouraged the Browns to start making small changes and adapting strategies to suit the conditions of Western Queensland. Changes to grazing management using data captured with tailored software and satellite technology to estimate available feed, by measuring pasture biomass as well as targeted rehydration work such as spreader banks, soon followed. The Browns do not prescribe to a single 'regenerative management system', instead looking broadly at holistic management practices that work on their property – a mix and match strategy paying dividends.

Jody is a storyteller – she loves capturing and sharing her story (and those of others) experimenting with different grazing management ideas and rehydrating the landscape. She has been central to a community of practice for peer-to-peer support by bringing expertise and new ideas to the region through the creation of a Regenerative Rangelands network.

"People networking outside their usual group is very important."

– Grazier

Case study: OPS Australia – supporting agriculture and rural communities in times of drought

OPS Australia (OPS) is an AgTech deliverer to rural areas across the country from its home in Longreach, Central West Queensland (CWQ).

The OPS solutions are designed to monitor and control anything on a property. Initially beginning with solutions for waters, fences and gates, OPS will add a mapping facility in 2024. The solutions integrate monitoring (what's happening) and control (decision making) functions using smart algorithms that make the technology innovative and functional, for example 'If tank full, then turn pump off'. A distinct benefit of OPS solutions is to reduce the time for graziers to complete repetitive tasks, such as checking stock waters. At present OPS solutions are installed on 15% of Queensland's rural land, providing them with technology tools to be resilient to drought.

CEO Andrew Barton describes the solutions OPS offers as designed and built by the bush, for the bush, in the bush. Growing up on the family property in CWQ, he understood outback property needs. This, plus his background in electrical engineering, plus careers in data analytics and product development with Woolworths and Shell, meant on his return to Longreach he was well-qualified to start an AgTech business that delivered improved management decision making in the often-harsh outback conditions.

The OPS modules are essentially a solar powered computer in tough containers. OPS has designed and delivered all aspects of these modules. A feature of the OPS solutions is that the modules are operating autonomously and independently to collect data and to control devices.

Importantly OPS solutions have no data costs. CEO Andrew Barton says that given the data communications options within Australia today, no-one should need to pay for data for AgTech to monitor and control on-property improvements. OPS solutions make this possible with a deliberately designed terrestrial data communication network that provides for a lower total cost of ownership. In this way OPS wants to distinctly improve AgTech services within Australia. All data is delivered to each grazier's smart device or computer and is available on demand. With these affordable systems, and without ongoing data delivery costs, graziers are supported in their management as well as being able to better prepare and respond in times of drought.

Image: OPS supports employment and training opportunities for young people in the Central West region to promote agriculture and AgTech employment options. *Source: Andrew Barton, OPS.*

OPS understands locals have real knowledge so they include graziers in designing systems beginning with a steering group when first creating their property solutions, that now continues as an advisory/review grazier group.

OPS works in several ways to promote agriculture and AgTech to youth through employing and training younger in the region and supporting school-based programs such as CHRRUP's LeadAG. For these groups OPS provide students with the opportunity to analyse property situations and design an AgTech solution.

Our vision statement

In five years' time, landholders and communities will be better prepared and able to deal with drought.

In examining a range of possible futures, we have contemplated three scenarios:

- one where we **Do Nothing** – where make little change and we continue thinking, behaving, and making decisions in the region, much the same as we have in the past
- one where we **Do More** – where we learn, adapt and modify – where we increase the intensity, scope, size or frequency of our actions. This could mean more people, more money, more often, etc.
- one where we **Do Things Differently** – where we undertake transformative change and where we move towards making systemic changes.

Key aims and objectives

The objectives guide a set of strategic actions for which investment cases will be developed. Development of both the objectives and priorities have been informed by community feedback and tested with stakeholders.

- There is improved monitoring and forecasting of key meteorological and landscape indicators, and social and economic conditions that are markers of drought.
- There is widely shared and well-informed regional engagement about building long-term community resilience.
- Enterprise level drought risk management is improved across the region.
- Measures to limit impacts of drought and better respond to drought are implemented.
- Essential infrastructure and services are in place and stress tested for times of drought.

Establishing priorities

The priority-setting criteria used the (regionally agreed) overarching goals of:

- **Infrastructure** that collects, reports and builds knowledge of the cause, impacts and likelihood of drought occurrence. This knowledge base is essential in taking pre-emptive action to reduce the impacts of drought.
- **Knowledge** of those in community sections most vulnerable to the risks associated with drought, and why.
- **Strategic actions** that build the community's capacity to better prepare for, manage and minimise existing impacts and recover from drought.
- **Systems and frameworks** that measure, evaluate and report the community's drought resilience capacity.

After reviewing and reflecting on the ideas and issues generated through analysis of the initial engagements, stakeholders were asked to prioritise the issues from two perspectives. The priority of the issue in terms of:

(1) its relative importance to the region
(2) the importance of taking action to increase drought resilience.

Later, as part of a deliberative and reflective model of co-design, regional stakeholders further prioritised and sequenced pathways and actions prior to development of the final RDR Plan. This final review process was informed by additional requested information requested by stakeholders.

The engagement and co-designed planning processes highlighted two significant issues requiring ongoing priority and attention. The need to:

- develop more effective governance structures and arrangements to develop and deliver sustainable drought resilience initiatives – this includes resolving the issue of 'ownership' of the RDR Plans
- ensure all drought support programs utilise a 'tiered support' approach requiring – at its foundation – both enterprises and communities to develop a multi-faceted drought resilience plan in order to be eligible for further support.

RDRP conceptual framework

Drought poses a significant risk to regional communities' economies, health, landscapes and infrastructure. Managing drought to reduce its impacts, needs to follow a simple risk management framework. This plan provides a pathway for establishing a risk management approach to building drought resilience for the Central West communities. It establishes the context, identifies impacts and confirms related risk management activities and requirements – such as risk assessment, management, recording, reporting, monitoring and review. This approach establishes the current risk drought presents and what action is required in future to ensure ongoing impacts of drought are managed appropriately to reduce impacts on regional communities.

This plan draws on and adapts the **'D-RAMP' model**[80] for Drought Resilience, Adaptation and Management, chosen by stakeholders during early engagements for its practical logic and ease-of-use.

The model outlines three pillars to prepare, respond and limit:

(a) Implement drought monitoring, early warning systems and plans for responses.

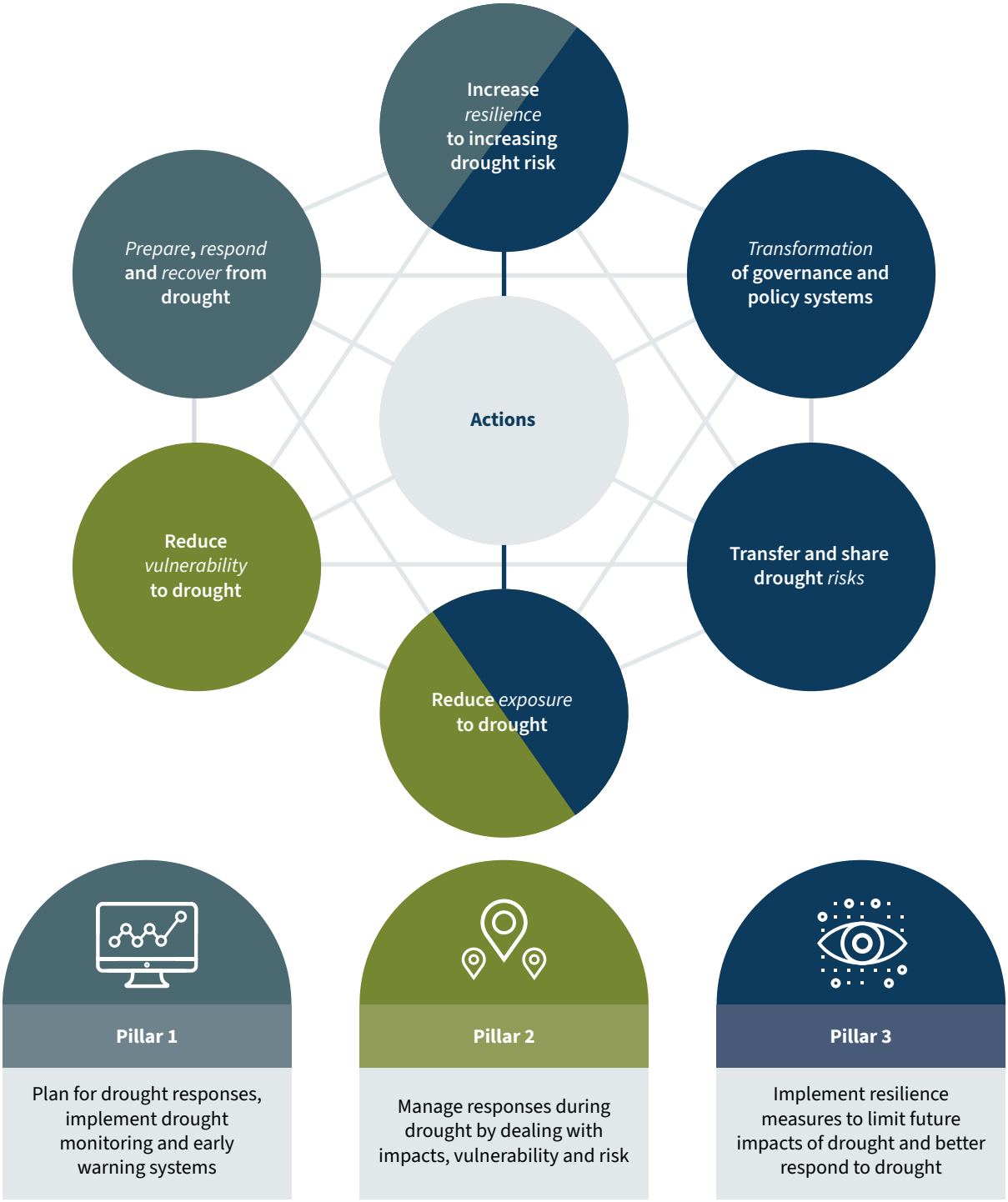
(b) Identify and address those vulnerable and at risk of droughts.

(c) Implement measures to limit the impacts of and respond better to drought.

The prioritised strategic pathways and key actions generated by the stakeholders and decision agencies in the Central West region have been summarised under each pillar to develop a unique plan for the region consistent with national planning frameworks and complementing other state and regional planning programs. Further details on the underlying framework and key pillars are shown in Figure 35.

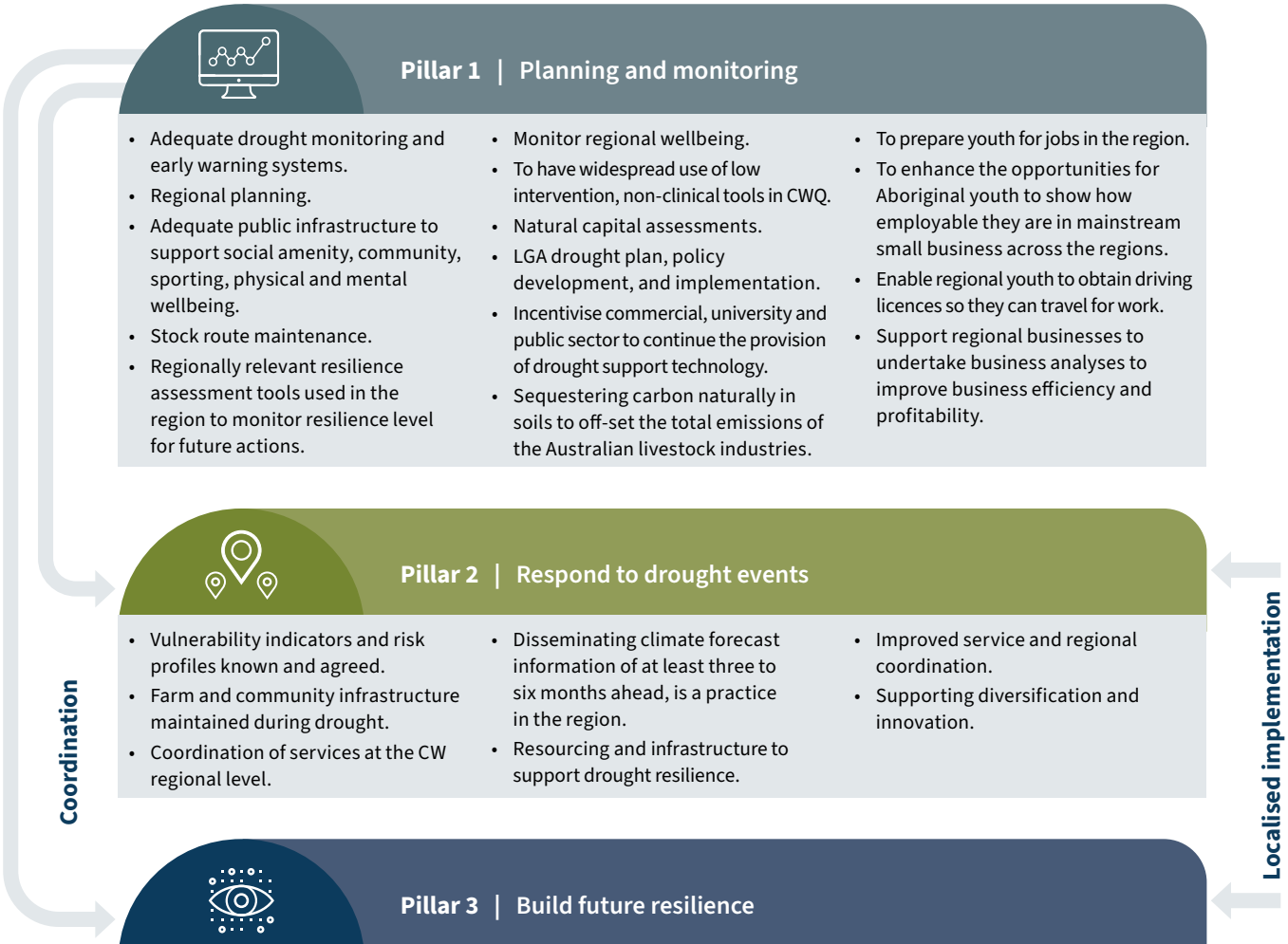
Image: Ourdel Sandhills, Windorah. *Source: Outback Queensland Tourism.*

Figure 35: Key pillars and actions of the Drought Resilience, Adaptation and Management Policy (DRAMP) framework.[81]



Key priorities

Figure 36: Three pillars for the Central West Regional Drought Resilience Plan.



Key themes and pathways

The CW RDR Plan was developed from information collected over the last 10 to 12 years. This information included impacts of drought and inputs by a range of people from the community, industry and government – providing a background picture and identifying actions ready for implementation or funding, specific to our region. There were several themes identified in the discussions with stakeholders, as summarised in the following.

Figure 37: Themes identified for the Central West Regional Drought Resilience Plan.

Theme 1
Protection of CWQ lifestyles – people, place and profitability

How to prepare for future droughts to protect and improve life in CWQ for its people (cultural, social and human capital), environment (natural capital) and the economy (financial capital). Decide what can prevent migration away from communities and attract new people. Identify how to grow jobs and profitability, provide services, financial assistance and support to community and industry.

Theme 2
Regional governance and leadership

Regional governance is critical to building resilience and preparedness. Our local governments and regional planning bodies have key roles in enhancing collaboration between all levels of government, communities and industry – as they are closest to communities and invested in their success and survival.

Theme 3
Diversification and innovation

Provide learning opportunities for people to obtain skills for developing new business income streams. For agriculture this can be off-farm incomes or new on-farm income streams. Identify and deliver the skills needed to monetise new businesses people develop. The purpose of this approach is to deliver access to information, skills and finance to encourage a growth mindset of looking towards future possibilities.

Theme 4
Water security

Provide learning opportunities for people to obtain skills for developing new business income streams. For agriculture this can be off-farm incomes or new on-farm income streams. Identify and deliver the skills needed to monetise new businesses people develop. The purpose of this approach is to deliver access to information, skills and finance to encourage a growth mindset of looking towards future possibilities.

Theme 5
Reliability of information and tools for decision making

Information is key to adaptability and proactivity. Reliable data is required across all focus areas of RDRP to plan for future drought and its impacts. For example, long range climate forecasting informs decision making, while the development of Community Service Guides connects people and communities to services. Other examples include natural resource management tools based on early warning and financial response mechanisms or the management of current resources such as water.

Theme 6
Technology and digital connectivity

Connectivity is critical to overcoming distance and the adoption of new technology. Reliable internet and a choice of providers would support new options for employment and innovation, as well as improve and increase service provision across all sectors.

Theme 7
Skills and education to build resilience

Education, new skills and mentoring across community and industry are essential to improve decision making capability and the ability to manage risk. New skills create new opportunities and can lead to innovation. Existing local and outside expertise can be targeted for mentoring and to support local networks.

Theme 8
Energy

Future sustainable energy options will influence community and industry ability to adapt to future needs, reduce energy costs, help diversify the regional economy, attract investment, and create new skills and employment opportunities.

Theme 9
Regional infrastructure

Management and access to regional and community infrastructure are critical to adaption. Examples include the sharing and coordination of resources across communities and the development and maintenance of specific infrastructure – such as roads impacting on transport, tourism and access to health and educational services.

Theme 10
Business resilience

All businesses in the region are impacted by drought. Agriculture is the major industry in CWQ and dominates regional output, but is significantly impacted by climate variability.

Preparing all businesses to manage under drought conditions is critical because of their role in providing services to the communities in which they operate, as they support the viability and liveability of the region.

Diversification within industries and the regional economy are important. Access to reliable information for decision making and a flexible labour supply is also important. For example, skilled and casual staff for local towns, shearers, contractors, and day staff for agriculture.

Theme 11
Adapt to changing climate

Weather in CWQ is highly variable and increasingly influenced by changing climate, the long-term shifts in temperatures and weather patterns. It is predicated we will see more periods of higher temperatures (and heatwaves), more frequent and intense storms in some areas (with risk of flooding), and less rain in others (increased risk of drought).

There are risks the changes in climate will impact the environment, people and economies of CWQ. There is work needing to be done to improve awareness, predict impacts, develop planning and improve adaptability.

Theme 12
Young people

Young people are the future in all communities. A resilient community holds and attracts young people. Previous planning has recorded CWQ visions for communities where young people contribute, are given leadership training and opportunities. In these communities the education sector supports learning journeys for training and study to prepare young people for roles needed for a future in the region.

Such communities are:

- connected and integrated, where there are opportunities for young people to return at the end of their education
- affordable with diverse industries and a rich cultural environment, to encourage young people to stay for opportunity rather than leave for it.

Whether it's 'our' young people or someone else's, attracting young people and families to communities with opportunities is **integral** to diverse and prosperous communities.

Theme 13
Health and wellbeing

The health and wellbeing of CWQ's people are vital for communities to develop and thrive. Drought highlights human vulnerabilities, and the need of supporting regional services to prevent them becoming 'the norm' in drought times. The support enables people to thrive (not just survive) and is done in advance of drought – through fortifying community connections so strong and resilient communities emerge and flourish, even in drought.

The Regional Strategy

This Regional Drought Resilience Plan is a locally led and regionally coordinated plan, with actions to be driven from a regional level. It is acknowledged some actions require involvement of additional stakeholders such as state or federal agencies, regional governance, local stakeholder groups, charities, NRM bodies and community groups. Where this is the case, actions will be driven through local leadership and while stakeholders may work together to deliver the actions, this plan does not commit these additional stakeholders to any responsibility, resourcing or funding.

The regional actions in this plan most fit one of three categories:

- single actions or initiatives producing a drought resilience outcome across most or all the region
- actions and initiatives 'rolled out' consistently in communities across the region
- actions and initiatives with uniform regional objectives, allowing flexibility in how they are implemented in individual communities.

Although all actions are designed to produce long-term drought resilience outcomes, it is understood some actions may only be 'triggered' by the next drought declaration. It is intended the practical implementation of this RDR Plan will commence with the co-design and development of a detailed Implementation Plan.

Key principles

During our work together, several important principles underpinning all actions and initiatives in the RDR Plan were discussed, shared and agreed upon. These principles have been considered and incorporated into the design of activities and actions in the following Action Plan.

The principles are summarised as:

- Planning and preparing is best done between droughts – building resilience for the long term.
- Collaboration and partnerships across sectors and communities is critical.
- In planning, recognition and inclusion of the Indigenous peoples living in the Central West region is important.
- Use existing regional governance frameworks and established regional groups as a base for consultation and decision making. Funds should go to mandated organisations to lead place-based activities.
- Strategic funding needs to extend beyond government cycles for success.
- Reliable data is necessary to plan and make decisions across all actions and priority areas.
- Access to data – information should be shared across organisations, communities and governments.
- Support champions and advocates to initiate plans and ideas, recognising new and emerging leaders.
- Advocate for policies supporting and enabling placed-based activities in a local context – with planning and implementation in consultation with local knowledge brokers.
- Optimise service delivery outcomes and resource allocation through coordinated planning and collaboration, to eliminate unnecessary duplication.
- Place-based, bottom-up approaches work best in regions.
- Recognise the impact of drought on small business as much as agriculture, in times of drought.
- Learning can occur more readily in peer learning communities of practice and with personalised training to meet individual learning needs.

ACTION PLAN

Infrastructure and built environment

Pillar 1 – Planning and monitoring

Projected outcome: A regional drought surveillance program in place monitoring and analysing key indicators of current and emerging environmental (meteorological and landscape), social, and economic conditions – which are markers of drought.

Priority	Resilience activity	Priority action
Adequate drought monitoring and early warning systems.	Bring together environmental (meteorological and landscape), social, and economic existing knowledge holders of drought early warning systems – including Lake Eyre Basin Traditional Owners Alliance, overland, underground, rainfall, urban and private sector expertise. Use this group to inform a desktop review of existing drought monitoring and early warning systems, to identify a gap and needs analysis. Deliver early warning systems and make them available to the public.	Within six months, RAPAD will have called for EOIs for a 'think tank' to bring together knowledge holders, develop terms of reference, and have held the first session of the group. Complete the gap analysis – including how to address identified gaps within a further six months.
Regional planning.	Future community/urban water planning is based on knowledge of current water supply. Assessment of demand transfer, storage amount and time as baseline data. *Note: Information is available through the 'Water for economic development – regional water strategy'.*	RAPAD Regional Water & Sewerage Alliance to oversee regional water solution design review at LGA level. If not already done, CWQ LGAs to engage with the Queensland Department of Local Government, Water and Volunteers to assess their level of urban water security. This service is available through the 'Urban water risk assessment project'.

Priority	Resilience activity	Priority action
Adequate public infrastructure to support social amenity, community, sporting, physical and mental wellbeing.	Each LGA to identify baseline priority needs for public infrastructure to support social amenity, community, physical and mental wellbeing during times of drought – for example, green spaces and waterways.	RAPAD to initiate by inviting each LGA to establish a drought policy for minimum basic amenity.
Stock route maintenance.	Maintenance of stock routes including but not limited to water infrastructure, fencing, pest animal and weed control.	RAPAD in conjunction with LGAs to advocate for the Queensland Government to fund the ongoing maintenance of State Government stock routes. CW RDRP Coordinator to explore how Indigenous Ranger Programs and Lake Eyre Basin Traditional Owners Alliance can be engaged collaboratively in the delivery of stock route maintenance and monitoring activities (fee for service opportunities).

Image: Barcoo Shire. *Source: Barcoo Shire.*

Pillar 2 – Respond to drought events

Projected outcome: Landholders and communities have capacity to respond to drought events through accessing grants and being aware of drought vulnerability indicators for the region.

Priority	Resilience activity	Priority action
Vulnerability indicators and risk profiles known and agreed.	The level of infrastructure required to service rural communities is not currently known. Identify what drought infrastructure and the level of service required in drought for each LGA community. To be done through an audit to identify gaps and opportunities in line with what delivers resilience – for example, what is an adequate water supply in each LGA's context. Regular assessment of public infrastructure such as water security and community amenity condition and adequacy is carried out. This may be available through asset management or other existing planning processes – identifying specific needs for improved public drought infrastructure to be funded, improving drought preparedness.	RAPAD to initiate by inviting each LGA to establish a drought policy for minimum basic amenity. An example of drought infrastructure is stock routes.
Farm and community infrastructure maintained during drought.	Provide options to improve financial capacity in farm enterprises to allow for the maintenance of property infrastructure during drought.	Continue the water infrastructure related subsidy schemes. CW RDRP Coordinator to explore options for alternative funding sources/programs for new and existing water infrastructure. This funding could be modelled on exclusion-fence funding programs. Investigate expanding the funding model to other property infrastructure such as yards and fences that are expensive to maintain and repair during drought.

Pillar 3 – Build future resilience

Projected outcome: Essential infrastructure is in place and maintained so communities and industries can access in dry times and drought.

Priority	Resilience activity	Priority action
Water security is increased.	Implement principles of integrated water resource management to reduce pressure on water resources, and increase availability of water to reduce the number of people exposed to drought impacts. Link to RAPAD water for economic development activities.	Support industry and business growth through water security by establishing further options to build water security in the region.
	Initiate research to improve the quality of existing agriculture water supply.	RAPAD and CW RDRP Coordinator to seek funding for research into the impacts of the changing climate on water quality and its subsequent impacts on agricultural production. RAPAD and CW RDRP Coordinator to seek funding to deliver on research recommendation. Initiate research to improve the quality of existing agriculture water supply for water purification and quality projects. A starting point may be QUT's Dr Lucy Reading.
Queensland Government to provide funding for State owned stock routes.	Advocate for financial support for LGAs to better resource stock route water and infrastructure.	RAPAD in conjunction with LGAs to advocate for the Queensland Government to fund the ongoing maintenance of State-owned stock routes. CW RDRP Coordinator to explore all opportunities for Indigenous Ranger Programs and Lake Eyre Basin Traditional Owner Alliance to participate in the ongoing maintenance of stock routes and to tender for State contracts/funding. It may be useful for LGAs to have an Indigenous procurement policy for this activity. A starting point may be with the CW Regional Pest Partnership Management Group.
Regional governance on stock routes.	Decision making for stock route use is based on LGA policy with Rural Lands Officer operational oversight assessment process.	Through the CW Regional Pest Management Group, develop a regional policy for CWQ LGAs to be enacted at the LGA level. Regional Liaison Officers (RLOs) empowered with access to the latest science and technology for land condition assessment and overall monitoring – e.g. Sentinel satellite data. CW RDRP Coordinator to explore how to include Prescribed Body Corporates (PBC)/Registered Native Title Bodies (RNTBs) in regional governance on stock routes, and to include them in data sharing and analysis arrangements.

Priority	Resilience activity	Priority action
Connectivity. 	Provision of region-wide affordable, high speed internet to support existing and future business, education and health provision, innovation and diversification. Investigation and expansion of business opportunities to increase government outsourcing to people working from home. Suitable connectivity will enable online communities to create connections and share ideas as stories to generate understanding of adaptive approaches including holistic regenerative practices.	Region and LGAs continue to advocate for digital connectivity promoting and facilitating the capacity of the region's businesses to operate in a globally competitive environment, and for communities to support the building blocks of health and education. Improve mobile technology and AI to communicate risks of potential disasters, such as bushfires and heatwaves, to tourists.
Continued funding for rural roads 	Provision of additional funding grants to LGAs to meet the additional costs of maintaining rural roads during drought.	Outback Regional Roads and Transport Group to continue to advocate for additional funds to maintain rural roads in drought.
Community infrastructure to support liveability 	Expansion of existing community amenity to improve liveability and support socialisation during drought, to meet changing expectations of community.	Seek financial investment opportunities to build and maintain community infrastructure for the long term, as per each LGA's drought policy.
Mechanisms to incentivise resilience 	Support for producers to access drought preparedness grants. For example, a grant of 25% of the cost of purchasing new permanent capital infrastructure to a maximum cumulative amount of $50,000 over five years. Expand the uptake of grazing industry participants writing Livestock Business Resilience (LBR) plans and submitting to QRIDA for drought preparation grant funding.	RAPAD continues to advocate for existing support programs such as the Grazing Futures LBR project. CW RDRP Coordinator to explore options to expand the number of graziers submitting plans for grants through existing services.
	Advocate for structural change to existing drought preparedness grants. For example, increase grant limits with a cumulative total of greater than the current $50,000.	Industry to advocate to grant bodies for structural change to increase existing limits to grants for drought preparation.

ACTION PLAN

People, culture and community

Pillar 1 – Planning and monitoring

Projected outcome: Communities use a resilience framework to monitor the level of resilience readiness of organisations, groups and individuals. Results are used to design systemic processes in each community to maintain – and where needed – develop resilience levels.

Priority	Resilience activity	Priority action
Regionally relevant resilience assessment tools used in the region to monitor resilience level for future actions	Identify regionally relevant resilience assessment tools to build and maintain community resilience levels and invite the RAPAD Board to decide which tool is best fit for all or each LGA. An example of tool developers are Outback Futures, in their work in regional Queensland communities and the Minderoo Foundation.	CW RDRP Coordinator to: • identify organisations with region-relevant assessment tools • deliver the RAPAD Board activity and document the outputs.
Monitor regional wellbeing	Conduct resilience activities periodically to monitor community wellbeing. Where less than one activity per LGA is being actioned, provide support for people in other LGAs to travel and attend to represent their communities. Conduct these biennially during drought. Report with recommendations for actions to be presented to the RAPAD Board for them to use and make public locally.	RAPAD Board to invite Western Queensland Public Health Network (WQPHN) to lead this resilience activity. Outback Futures could be a collaborator in delivering this resilience activity. RAPAD Board and LGAs to use the report and recommendations to identify how to support communities in each LGA. RAPAD and WQPHN to collectively advocate at both levels of government, seeking ongoing support to prepare and respond to drought. Continued advocacy is required as drought is not a disaster that triggers immediate funding support.
	Encourage health and wellbeing service provider accountability to regional communities and individuals through reporting on key performance indicators or other measures of impact for client programs and services.	CW RDRP Coordinator to contact health and wellbeing service providers such as Royal Flying Doctor Service (RFDS) to discuss resilience activity as raised by community – who seek further explanation of measures of impact/Key Performance Indicators (KPIs) at the conclusion of health support activities with clients in small and remote regional communities.

Priority	Resilience activity	Priority action
To have widespread use of low intervention, non-clinical tools in CWQ	Support and promote the use of tools such as **Weathering Well** and **Farm** as tools by support workers to use for health and wellbeing intervention, enabling individuals and groups to be better prepared mentally for drought. Explore the Global Leader Wellbeing Survey (GLWS) and Report; as a tool for improving the wellbeing of those in leadership positions in CWQ.	Beginning immediately, CW RDRP Coordinator to support and promote the spread of the use of tools in the CWQ community. CW RDRP Coordinator to investigate the useability of GLWS and its report as a mechanism for improving the resilience of leaders across the region.

Pillar 2 – Respond to drought events

Projected outcome: CWQ communities with ready access to the information they need to respond to drought situations.

Priority	Resilience activity	Priority action
Coordination of services at the CW regional level	Currently available services (and service providers) are made accessible to individuals and communities through pathways individuals and organisations can readily access and use. Relevant stakeholders to design a directory as a decision-making system for community members.	CW RDRP coordinator to investigate 'My Community Directory' (MCD) and promote it as a ready-made tool in each of the local government areas of CWQ. Seek acceptance from the RAPAD Board for the use of MCD across the seven LGAs.
Disseminating climate forecast information of at least three to six months ahead, is a practice in the region.	Ensuring the region has access to the outputs of drought forecasting tools and the capacity to act on them.	CW RDRP Coordinator to invite SQNNSW Innovation Hub Climate Mates[82], state agencies, industry bodies and private providers to raise awareness and recommend actions from forecasts to meet this resilience activity.

Pillar 3 – Build future resilience

Projected outcome: Enable people and communities to gain the skills to increase resilience to drought and other adverse events.

Priority	Resilience activity	Priority action
It is a priority data from a community is used to decide where to support improvement in resilience.	Using the tool/s identified in Pillar 1 in each LGA, have the RAPAD Board, executive staff and the owners of the tool/s, design how each of the seven LGAs can support current resilience and build community resilience levels. Program to be re-run over time to further embed healthy practices.	CW RDRP Coordinator to deliver the RAPAD Board activities and document the outputs. Ideally these activities will include owners/ deliverers of the tools in training local people to use their tool, so timing of action and skill remains in community hands.
Existing services are maintained.	To ensure services in CWQ are maintained and continue to be available as per delivered by private, State, Federal and not-for-profit organisations. Examples include Rural Financial Counselling Service, Farm Business Resilience Planning, Small Business Financial Counselling Service, Business Wellness Coaching, DPI SADO and Extensive Livestock Extension Officers, SQNNSW Drought and Innovation Hub Longreach, and Head Yakka.	Region's organisations and groups to advocate for maintenance of services.
Health and wellbeing is paramount in situations where being resilient is required	Deliver RFDS' 90-minute Pillars of Wellbeing program to workplaces in each LGA. This program is already funded for delivery by RFDS in the seven LGAs comprising the CWQ region in this RDRP.	Within six months, RAPAD Board to develop a schedule for how each LGA will deliver the RFDS program.

Priority	Resilience activity	Priority action
Support local businesses employing local people and provide professional development to increase their skills. 	To give young community members the opportunity to stay locally for employment opportunities rather than 'go away'. Some businesses employ local people and give them the training to do the job. An example is tech start-up OPS Australia (Outback Property Solutions). To advocate for funding for business support through DSBS. To deliver place-based professional development support which could be provided through the Country University Centre. To support diversified industries in local communities. To foster and support a bottom-up led regional business group.	CW RDRP Coordinator to promote the benefits of living and working locally, for example, 'Go-Far Out'. Case studies to be used by RAPAD Board to create a framework to support existing and new businesses to develop career paths for their local youth. The Board can invite businesses such as OPS Australia to be involved in designing the framework and identifying the types of businesses to which it can apply.
Capacity to innovate and diversify in agricultural management and other income streams is increased. 	Develop a system of entrepreneurial, enabler support for: • those wishing to start a new business for improved income • existing businesses wanting to grow for improved income • land managers wanting to diversify income. An example of a previous similar local process is the RAPAD Entrepreneur in Residence program, a current process is Innovate Moreton Bay. Funding for GroWQ to deliver innovation for small business in the region.	CW RDRP Coordinator to: • find a suitable entrepreneur enabler and connect them to the region • create a community of interest – beginning with groups already doing innovative business practices, for those wanting to increase income and link to the entrepreneur enabler to provide support and training. • look for opportunities to connect CWQ entrepreneurs and groups with other similar groups, e.g. Innovate Moreton Bay • connect with DPI Senior Agribusiness Development Officer (SADO).
To deliver support funding through formal groups active in communities.	Where support for communities is made available, ensure it is delivered through existing service provider organisations. For example, where it is for: • agri-ecological landscape resilience, do so through local NRM, Aboriginal Corporations and community groups working in land management. Examples are the Regenerative Rangelands, Abundant Landscapes and vibrant communities, DCQ, Desert Uplands, Indigenous Rangers Alliance, Lake Eyre Basin Traditional Owner Alliance, Landcare, Rural Lands Officers, etc. • support for independent living for people with a disability to do so through Outback Independent Living (OIL).	CW RDRP Coordinator to keep aware of available and emerging grants and connect this information with an existing community group. RAPAD Board and CEO to use the Executive Summary and Actions list in the RAPAD Care Services Analysis report to explore how they can support older people and people with a disability, including supporting the establishment of independent living facilities in the region.

Priority	Resilience activity	Priority action
To support older and vulnerable people in the community.	Central Western Queensland has an aging population of 19.6% compared to 16.9% for Queensland. Supporting older people to age safely and well at home, and for other vulnerable people in the community, is a priority. A range of community connections, community transport options, home modifications and access to mental health services needs to be provided.	LGA's or other stakeholders to review how older and vulnerable people are supported in the community and consider locally appropriate options to increase levels of support (if not already provided).
Provide leadership training for younger community members in agriculture, Aboriginal youth, disability and care sectors, and the broader community.	To deliver a leadership program through Foundation for Regional and Rural Renewal (FRRR) as part of the CW RDRP project or Leading in the Central West leadership program, to youth across the communities – so they better understand the options they have for responding in drought situations.	CW RDRP Coordinator to within 12 months, work with: • Australian Rural Leadership Foundation (ALRF) to explore options for leadership programs from which youth could benefit • Aboriginal Corporations leaders in the region on what leadership options are available regionally including Elder-led ones suited to their youth.
Agricultural and other businesses, as well as community infrastructure, is maintained during drought. Support the uptake of new technology where relevant.	Demonstrate how the productive capacity of land can be increased through adaptive farming approaches, allowing for the maintenance of property infrastructure during drought, through processes such as holistic regenerative management practices and infrastructure development such as exclusion fencing. These can usefully include information from Aboriginal groups already using Aboriginal land management practices, other regenerative communities of practice and farming to improve natural capital, in the grazing lands of CWQ. The demonstration can include measures of how regenerative management can decrease the time over which drought reduces business profitability and the time when it regains profitability after a drought.	CW RDRP Coordinator to organise a business analyst with knowledge of CWQ grazing industry* to lead an activity using the concepts of Rapid Rural Appraisal (RRA) or Participatory Rural Appraisal (PRA) as the source of data on productivity from CWQ stakeholders to demonstrate productive capacity for this resilience activity. ** For example, PRW Agribusiness, Ringrose, and Button Accounting or similar.*
Region to advocate for grants for efficient water management.	Engage with stakeholders of DCQ, AgForce, Indigenous Rangers Alliance, Lake Eyre Basin Traditional Owner Alliance, DPI Beef and Sheep Officers, Stock and Station Agents, RAPAD, and graziers using adaptive holistic rangeland regenerative management practices.	RAPAD to advocate for the continuation of the water infrastructure related subsidy schemes of the recent past.

Priority	Resilience activity	Priority action
Promote water use efficiency to better utilise and manage water in the CWQ towns.	Initiate a 'good practices with water' program to be rolled out across the town communities of CWQ so all residents know how to manage their water use with no waste. This can include the promotion and use of water use technology to better utilise and manage water conservatively, highlighting examples of best practice in CW LGAs such as the Barcaldine Regional Council Waste Water Reuse project.	Seek funding from the Queensland Department of Regional Development, Manufacturing and Water to design and deliver a program with the seven LGAs in CWQ. Develop and fund a water-wise program aimed at youth for delivery by Indigenous Rangers' as part of existing Junior Ranger activities.
Prioritise supporting connectedness among people in CWQ communities	Incorporate art to support individuals to maintain the capacity to be resilient in drought, as art can enable communities to be more connected. Where appropriate, harness the capacity of arts to strongly support personal, community and business resilience – e.g. through communities being able to tell their own stories.	Through the funded FRRR – Community Impact Program 'Woven Stories' RAPAD project: • Explore options for art practices such as a methodology for enabling community to tell their own stories as a resilience building practice. • Identify how art can increasingly be an economic pillar of CWQ communities.

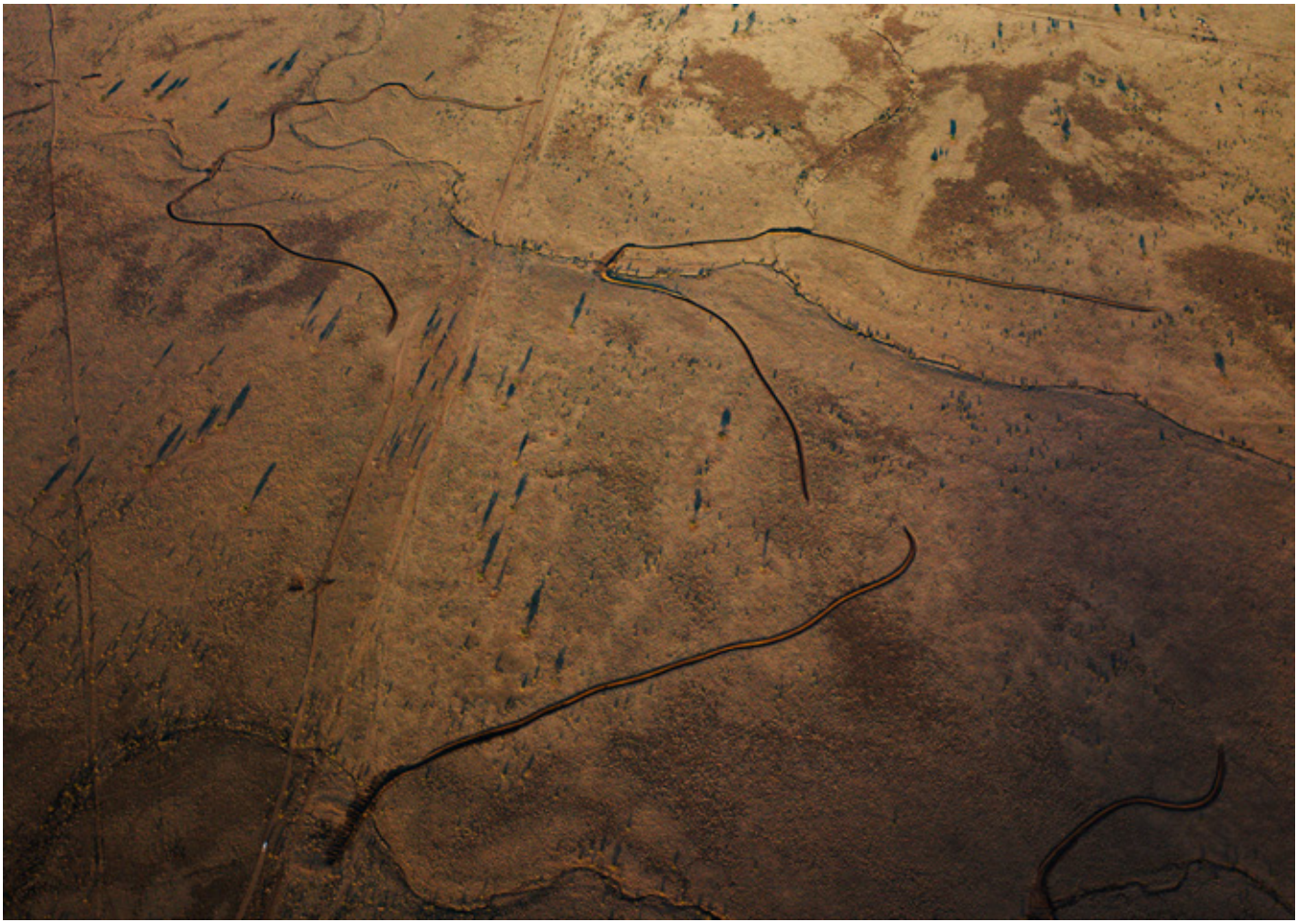


Image: Water spreading near Longreach. *Source: Jody Brown, Latrobe Station, Longreach.*

ACTION PLAN

Landscape and natural environment

Pillar 1 – Planning and monitoring

Projected outcome: Land managers are prepared and able to assess and understand what is required for resilience of landscapes and the natural environment.

Priority	Resilience activity	Priority action
Natural capital assessments.	Make possible property assessments to establish baseline data of natural capital for monitoring and holistic grazing system planning. Data can be used for property planning and management. Assessments should be aligned to the Conserving Nature – a Biodiversity Conservation Strategy for Queensland (The Biodiversity Strategy)'	CW RDRP Coordinator to: • Investigate natural capital assessment providers such as AgCare (Agforce) and NatureBase (AgTrade). • Plan and run information sessions on natural capital assessments linking producers to providers. • To provide evidence of value of improving natural capital. For example, developing case studies about natural capital assessments on improving information planning, management, and soil carbon projects.
LGA drought plan, policy development, and implementation.	Prepare local and regional plans to help target drought planning in each unique community and across the region – similar to LGA Local Housing Action Plans.	LGAs to develop local and regional drought action plans linking to the CW RDRP.
Incentivise commercial, university and public sector to continue the provision of drought support technology.	Building awareness of pasture assessment and management tools and their capacity to support better decision making. Reinforcing the value of pasture assessments and management tools to disseminate information and provide training for uptake. For example – RCS stock squares, Sentinel, Cibo Labs, Ag360 etc. Explore options for using AI tools to support and enhance decision making capability in agriculture.	CW RDRP Coordinator to invite SQNNSW Innovation Hub, state agencies, industry bodies and private providers to raise awareness, lead and facilitate delivery of programs to meet this resilience activity.
Sequestering carbon naturally in soils to off-set the total emissions of the Australian livestock industries.	Explore the potential for CWQ or other land to sequester carbon in soil, at least for the equivalent of animal emissions. This is a paired activity with other activities about improving natural capital and capitalising on its positive role in improving landscape and business resilience.	CW RDRP Coordinator to convene the 'Think Tank' to explore how this Resilience activity may be done. A starting point can be to engage in a consultancy role with the initiator of the concept Jerome Leray of InFarm at Goondiwindi, for his base calculations and geoscience knowledge.

Image: Kennedy Developmental Road connects Winton and Boulia. *Source: RAPAD.*

Pillar 2 – Respond to drought events

Projected outcome: Enable land managers and communities to access and use information for making decisions.

Priority	Resilience activity	Priority action
Resourcing and infrastructure to support drought resilience.	Decision making is based on reliable and timely information/data. Continued investment is required to ensure infrastructure supports data collection and dissemination. Bureau of Meteorology radar coverage is limited in western Queensland.[83] The Longreach radar is a standard weather watch (as opposed to new doppler technology that doubles the resolution of existing radar).	RAPAD to advocate for wider coverage and more accurate radar technology and infrastructure in CWQ to inform decision making and planning ability.

Pillar 3 – Build future resilience

Projected outcome: Landscapes and land managers are better prepared for dry times and have the skills to manage in dry times.

Priority	Resilience activity	Priority action
Increased water security.	Advocate for excellent (fair and equitable) community consultation processes regarding LGA, State and Federal Government water planning processes. DCQ NRM Plan 2021–2025[84] to protect and sustain water resources. The consultation to include Traditional Owner Custodians and Indigenous Ranger groups in CWQ.	Advocate for community consultation processes regarding LGA, State and Federal Government water planning processes and potential for industrial water use, e.g. Blackall Woolscour project. DCQ to be supported to improve management of GAB, wetland education, floodplain corridor and artesian spring management, and update knowledge of groundwater hydrology.
	Education on water conservation and targeted use of water to improve liveability in the region.	CW RDRP Coordinator to identify funding for community education for wise water use and arid gardening in partnership with, for example, DCQ. RAPAD to advocate to LGAs through the RAPAD Board to implement a region-wide urban water education program delivered through LGAs. RAPAD and LGAs to explore options and feasibility for improved community liveability projects, e.g. water parks and green spaces. Initiate a 'good practices with water' program. Seek funding to design and deliver 'good practices with water' across the seven LGAs of the region.
	Better management of current and future water resources. Stakeholders include DCQ, RAPAD, LGA's, Traditional Owners, SQNNSWIH, GrowWQ, commercial water technology providers, State and Federal Government, etc.	RAPAD Regional Water and Sewerage Alliance to explore water resource management practices for increased security – including reducing evaporation and management of waterholes with consideration given to impacts on other water users. CW RDRP Coordinator to explore options for rehydration of landscapes.

Priority	Resilience activity	Priority action
Support decision making for responding to drought. 	Develop resources demonstrating drought preparation, evidence of management practices, and changes to practice in context. Better records can be used for informing own businesses and potentially for funders/financial institutions and government.	Partnering with potential funders/financial institutions and government to develop templates for simplifying reporting or recording drought preparation and management to suit the user, for example, using photographic evidence rather than recording forms or ticking boxes which do not really demonstrate impact of practice change.
	Source or develop new models and tools to share information and inform decision making during drought.	CW RDRP Coordinator to partner with potential funders/financial institutions and government to work with producers and industry to develop decision making tools that can be adapted to individual circumstances and ongoing change – such as scenario planning and decision making trees to simplify decision making.
	Source or develop tools to assess adoption readiness for new technology or management practices that are simple to use and assist with decision making based on technology people know and understand, such as Excel.	CW RDRP Coordinator partnering with potential funders/financial institutions and government to work with producers and industry to develop decision making tools using existing and familiar technology.
Mechanisms in place to build resilience and reduce risk. 	Incentivise climate friendly and drought mitigation strategies to reward those using strategies known to promote landscape and business resilience, encouraging others to make positive changes.	RAPAD and partners advocate to the government to reward those using strategies known to promote landscape and business resilience, as a means of building drought resilience.
Policy and governance 	Alignment of CW LGAs drought and climate adaption policies/activities to RDRP.	CW RDRP Coordinator to support LGAs to develop drought and climate adaption policies relevant to context, aligned to CW RDRP.
	Land management and land use diversification supported by relevant legislation. Holistic land management practices might include landscape hydration, e.g. ripping of country and contour banking, traditional cool burning practices and water infrastructure. Diversification as a drought mitigation strategy might include water use management for industries like aquaculture, horticulture or specific projects like the Blackall Woolscour.	RAPAD to advocate for legislation supporting holistic land management practices and diversification
	Use of disaster management and risk reduction frameworks as a guide for drought mitigation, preparedness, response and recovery.	RAPAD to seek funding to explore the use of the Queensland Disaster Management Framework[85] principles for community drought management.

Priority	Resilience activity	Priority action
Focus on land and pest management practices. 	To promote increases in productivity through land management incorporating natural capital improvement and carbon assessment and sequestration, as well as the practices being used by CWQ Traditional Owner Custodians and Indigenous Ranger land management groups in CWQ. Benefits would include meeting emission reduction targets and funding/funders' requirements, and potentially developing an alternate income stream depending on strategy and activity.	RAPAD, through the CW RDRP Coordinator and Innovation Hub, to support increased literacy in the role of natural capital, carbon sequestration and improved productivity through holistic management practices.
	Funding to support holistic land management practices (including water infrastructure) for individual businesses and holistic land management communities of interest.	As a cost effective solution to drought resilience, recommend additional investment into landholder engagement services that promote adoption of sustainable management practices.
	Establish or link to an existing repository of holistic management resources widely accessible within the community and industry, including sources of training and mentoring to use these resources and support the existing holistic land management communities of interest.[86]	CW RDRP Coordinator to research, create, maintain and update a database of holistic management information and contacts – including case studies and stories, visual data displays (rainfall, fire damage) and practical examples. Link to existing programs and/or identify potential mentors and early adopter business partners to support other people and businesses on similar journeys.
	Support opportunities for Land Managers' – non-Indigenous and Indigenous – to collaborate on holistic landscape management respecting and implementing shared knowledge system practices (two-way learning) with common benefits.	RAPAD and CW RDRP Coordinator to seek additional funds and identify opportunities to enhance and support Indigenous Ranger Programs and Aboriginal Corporations to participate and lead resilience activities including projects to work with traditional owners such as Mithika, Guwa-Koa and Iningai peoples. Research and document practices and prepare case studies.
	Prevention and early intervention management strategies for pest animal and weeds to reduce costs, impact and spread across CWQ. Ongoing monitoring and continued education to inform and support effective pest management practices in line with the 'Queensland invasive plant and animal strategy 2019–2024'.[87]	RAPAD to support DCQ, other NRM groups, LGAs through the CW Regional Pest Management Group, community and peak agricultural organisations, and landholders to responsibility manage invasive plants and animals in the region.
Renewable energy. 	CWQ is well placed to produce traditional and renewable energy for the region and State. For example, Barcaldine Regional Energy Zone (BREZ), solar, Green hydrogen, Green Day (prickly acacia).	RAPAD to continue to advocate for an investment in secure, affordable green energy sources.

Priority	Resilience activity	Priority action
Improve forecasting and mapping of trends.	Reliable climate data is pivotal to land and stock management decision making.	RAPAD to continue to support SQNNSW Innovation Hub giving land managers access to climate information and other forecasting tools for integration into management practice. Host climate information workshops and/or develop an online portal linked to existing climate information to support reliable decision making.
Farm and community infrastructure maintained during drought	Build financial capacity in farm and town enterprises to allow for the maintenance of property infrastructure during drought.	RAPAD to advocate to continue the water infrastructure related subsidy scheme called On-farm Emergency Water Infrastructure Rebate Scheme. RAPAD to advocate for the water infrastructure program to become the model for other infrastructure program delivery.

Image: Cawnpore, Winton. *Source: RAPAD.*

ACTION PLAN

Economy

Pillar 1 – Planning and monitoring

Projected outcome: The regional economy is better prepared for dry times and drought through planning to provide jobs and retain a regional workforce which will sustain communities.

Priority	Resilience activity	Priority action
To prepare youth for jobs in the region.	To provide industry and other training relevant to jobs in the region – through organisations e.g. Australian Wool Innovation (AWI) that have 'action ready' training programs for shearers and shed staff, Agforce Agricultural apprenticeships and CHRRUP LeadAg youth training programs and the QPS Blue Light Shearing. Use the strengths-based Discovery tool as a model recruitment tool for Aboriginal youth and other unemployed, disadvantaged youth in CWQ. An example of a program already in place is the 90-day intensive program – designed and delivered by Yachatdac (Iningai) Traditional Owners. Explore opportunities to increase the employment of young people with disability in the region (refer RAPAD Care Analysis Report).	Continued advocacy to State Government for localised training and upskilling needs. RAPAD Board to invite government agencies to: • resource and provide a regional skill needs and training analysis • prepare a list of youth training courses relevant to industries of CWQ • support regional youth to travel to the courses where they are held in CWQ. RAPAD to invite RESQ+ to: • work to engage youth in being job-ready – including young Aboriginal people – which may be done by working with Aboriginal Elders in, for example operating equipment. RAPAD to investigate opportunities for employment through its RTO RAPAD Skilling to: • partner with each organisation to deliver their training.
To enhance the opportunities for Aboriginal youth to show how employable they are in mainstream small business across the regions.	Provide a fair language assessment tool for recruitment of youth, including Indigenous youth by businesses in CWQ – e.g. the Discovery Tool. Provide employers with a means of recruitment allowing assessment of suitability for the role, even with lower English literacy skills.	CW RDRP Coordinator to initiate contact with Turnstone – the developers of Discovery – to explore the concept and application of the tool. Following this, connect with RESQ+ and offer it to one of the region's Aboriginal Corporations to trial for its possible role to enhance recruitment of young Aboriginal people by CWQ businesses. This can include beginning with administrative jobs in RESQ+ offices and Queensland Government Departments such as hospitals. Such changes can also lead to more relaxed experiences for Aboriginal people needing to visit service providers.

Priority	Resilience activity	Priority action
Enable regional youth to obtain driving licences so they can travel for work 	Programs are needed in CWQ LGAs without regular access to driver training programs and examination facilities. These programs are also required for youth who have lower English literacy skills and/or limited economic capacity to travel for training, or access suitable vehicles required for training and examinations. Such programs will support youth to successfully get a driver licence so they can be self-reliant and travel for work. A recent example in Boulia, involved a driver training school level with 'Murris on the Move' and an example in Cunnamulla from 2021 demonstrated community support to provide a vehicle for learner drivers to use, with supervision from local police officers.	RAPAD Board to discuss with Qld Police Service (QPS) in regional towns to explore how this could be actioned to improve community resilience and enable youth to travel for work. Murris on the Move should be contacted to explore group training options for CWQ.
Support regional businesses to undertake business analyses to improve business efficiency and profitability 	Provide opportunities for business analysis and subsequent support for CWQ business. Foster support for a bottom-up led regional business group.	Advocacy to State and Federal Governments for ongoing small business support to provide training and skills development opportunities, supporting business development and diversification. RAPAD to advocate to reinstate Small Business Financial Counsellors to deliver current business analysis service for local producers and businesses. Advocate for funding for the CWQ Small Business Group to explore interest and the factors supporting uptake to develop a business support service – assisting business planning and financial literacy to support diversification in small businesses. Examples of services include marketing, accounting, digital skills, customer service and options for outsourcing suitable business support – especially for time poor operators.

Pillar 2 – Respond to drought events

Projected outcome: Increased capacity to provide services, regional coordination, and support diversification and innovation to maintain the regional economy.

Priority	Resilience activity	Priority action
Improved service and regional coordination.	Accurate and accessible information is critical to decision making and support.	Western Queensland Drought Appeal to develop a portal for information and support required across a range of areas.
	Reduction in service duplication and overlaps.	CW RDRP Coordinator to support ongoing working relationships between people and organisations operating in the drought space – based on shared goals and focusing on reducing overlaps.
Supporting diversification and innovation.	Develop a community of practice for those considering starting a second or new small business, and create opportunities to explore what and how they can begin their business. This aligns with the item 'Capacity to innovate and diversify in agricultural management and income streams is increased', in Pillar 3 of People, Culture and Community. Here it focuses on economic analysis to support decisions being made on what and how to generate income.	CW RDRP Coordinator to: • Find a suitable entrepreneur enabler and connect them to the region. • Create a community of interest – beginning with groups already undertaking innovative business practices for those wanting to increase income and link to an entrepreneur enabler to provide support and training. • Look for opportunities to connect CWQ entrepreneurs and groups with other similar groups, e.g. Innovate Moreton Bay. • Identify available business support programs bringing a level of rigour to the economic aspect of small business startups, to reduce the failure rate for new small businesses. • Support individuals to audit personal skills to create new income sources, expand existing businesses, and grow new markets and products.
	Continue to support groups in the community providing information and support for innovation and diversification, through adaptive land management practices such as GroWQ and Regenerative Rangelands.	RAPAD through CW RDRP Coordinator or Adoption Officer to seek funding to extend the role of the Adoption Officer – to continue developing and presenting regional events (such as those provided by GroWQ and Regenerative Rangelands) demonstrating relevant adaptive management practices.

Pillar 3 – Build future resilience

Projected outcome: Support activities know to promote future resilience.

Priority	Resilience activity	Priority action
Diversification and innovation.	Provide examples of increased financial capacity in farm enterprises using adaptive management practices to allow for the maintenance of property infrastructure during drought, for example using holistic grazing systems. The examples can include measures of how resilient businesses go into drought later, and come out of drought earlier. Stakeholders include DCQ, AgForce, DPI Beef and Sheep Officers, Stock and Station Agents, RAPAD, and graziers using holistic rangeland regenerative management practices.	CW RDRP Coordinator to organise a business analyst with knowledge of CWQ grazing industry to lead an activity using the concepts of Rapid Rural Appraisal (RRA) or Participatory Rural Appraisal (PRA) as the source of data on productivity from CWQ stakeholders, demonstrating financial capacity for this resilience activity.
Increasing financial literacy for all.	Build financial literacy skills, knowledge and capacity to track and interpret financial information for business decision making and support a culture of calculated risk.	RAPAD to advocate to the government, industry and finance sector to support and fund financial literacy and counselling for agriculture, small business and the community.
Regional investments impacting regional economies.	Identify options for improved economic impact across the region. A recent WQ example is the Wild Dog Exclusion Fence. Separate LGA examples currently being progressed are the Blackall Woolscour and the Barcaldine Renewable Energy Zone (BREZ).	RAPAD to invite the 'Think Tank' to develop and present options that can be region wide, or separate LGA focussed, to deliver on this resilience activity.
Increasing the use of data for decision making	Build technology skills, knowledge and capacity to track productivity information for agricultural business decision making.	CW RDRP Coordinator to invite SQNNSW Innovation Hub, State agencies, industry bodies and private providers to lead and facilitate the delivery of programs to meet this resilience activity.
Employment recruitment and attraction.	Review of Zone Tax Offset, Remote Area Allowance, and expand zonal areas to better reflect additional expenses associated with living remotely.	RAPAD to advocate for a review of the classification boundaries for the Remote Area Allowance.

Community partnerships and communication strategy

Implementation will commence once funding and support is provided. A Regional Oversight Group and governance will be established, and the actions will be prioritised into a set of workplans that match available funding, partnerships, personnel and time constraints. Potential alignment with other major strategies, plans and policies will also be considered. Criteria to be used in shortlisting initial actions for attention are likely to include factors such as cost, availability of resources, size of the potential changes, certainty, impacts on stakeholders, and the possible pathways to implementation.

Following endorsement of this plan, a process will be actioned to engage and communicate with the community about the progress of activities to be implemented. This Communication Framework has been co-designed by key stakeholders; however, it is expected the Framework and its component activities will be modified over time – as issues and opportunities arise during implementation, and as lessons are learned from experience.

Table 5: Key engagement activities

Communication event(s)	Timing	Key audience
Ministerial announcements	Within 2 months of sign-off	General public
Media releases – National, State, Regional and Local	As required	General public
Plan – inclusion on websites (PDF and/or links)	Within 3 months of sign-off	General public
Community/Sector engagement	As required	General public, business representatives, agriculture representatives, community representatives
Project implementation/MER reports	As per MER Plan, as agreed with funders	RAPAD, DPI, funding bodies
Project updates – media releases	As required	General public
Annual Report – general distribution	Annually at end of year	General public, DAFF, DPI, government agencies, NGOs
Annual Report – inclusion on websites (PDF and/or links)	Annually at end of year	General public, DAFF, DPI, government agencies, NGOs
Project completion reports	At completion of project	RAPAD, DPI, funding bodies

Monitoring, Evaluation and Review (MER)

Key Evaluation Questions

The Key Evaluation Questions for this Regional Drought Resilience Plan are:

- To what extent has the RDR Plan been implemented and has impacted on the regional stakeholders' capacity and resources to better plan, manage and recover from climate challenges?
- What changes/support are/is needed to ensure the RDR Plan best provides an effective framework for action, and for stakeholders to effectively work together towards implementing those actions?

Assumptions underpinning the implementation of the RDR Plan

The Future Drought Fund Monitoring, Evaluating and Reporting Plan identified the following assumptions for the plan to be effectively implemented:

Key assumptions affecting outputs to 1–2 year outcomes

- Regional stakeholders have the capacity and capability to participate in strategic planning.
- Regional stakeholders are willing to cooperate with each other on regional planning.
- Program design is sufficient to give regional stakeholders opportunities to identify and communicate regional drought resilience needs.
- Relevant planning at other scales can be aligned.
- Regional communities are motivated to take ownership of completed plans and actively seek to implement them.
- There are sufficient learnings to inform future program design.

Key assumptions affecting outcomes from 2+ years

- Supporting consortia of local governments/stakeholders representing a region will result in changes in practice through those regions.
- There are sufficient opportunities for regions to implement elements of plans.
- Plans contain implementable activities to build drought resilience across Australia.
- Regions continue to review, update and implement their plans.

These assumptions will need to be monitored during the implementation phase to provide feedback and highlight areas requiring further intervention.

Image: Mount Slocombe Yaraka. *Source: Visit Longreach Region.*

Monitoring progress and evaluating outcomes

The following table is based on the relevant Future Drought Fund Monitoring, Evaluation and Reporting Framework indicators and the actions developed in this Regional Drought Resilience Plan. The Plan includes several indicators against identified actions.

Table 6: Key monitoring indicators

FDF Standard Indicators	Specific Regional Indicators	Evaluation Approach
Outcome level: Impacts 4+ years		
• Agricultural landscapes are functional and sustainable, with healthy natural capital (environmental resilience). • Agricultural businesses are self-reliant, productive, and profitable (economic resilience). • Agricultural communities are resourceful, adaptable, and thriving (social resilience).	**Strong and healthy people living with the land and resilient to drought.** • **People, culture and communities:** Communities' drought resilience has improved. • **Economy:** Business owners are pursuing opportunities to increase financial security of their business before, during and after drought. • **Landscape and natural environment:** Land managers are implementing land management practice change to improve the resilience of the landscape and the natural environment to drought. • **Infrastructure and built environment:** Investing in building, maintaining and improving infrastructure has contributed to increasing the communities' drought resilience. Note 2030 indicators in **Action Plan** tables.	These longer-term impacts are best captured at a national level by the federal Government through ABARES surveys and other national statistics based on a benchmark and considering climate, market, and other impacts on this outcome.

FDF Standard Indicators	Specific Regional Indicators	Evaluation Approach
Outcome level: Long-term outcomes 4+ years		
• Stronger connectedness and greater social capital within communities, contributing to wellbeing and security. • Communities implement transformative activities that improve their resilience to drought. • More primary producers preserve natural capital while also improving productivity and profitability.	**Key Aims and Objectives** • A regional drought surveillance program is in place that monitors and analyses key indicators of current and emerging environmental (meteorological and landscape), social and economic conditions, which are markers of drought. • There is widely shared and well-informed regional engagement with managing drought risk for long-term community resilience. • The region comes together to build drought resilience. • Widespread enterprise level drought risk management is established across the region. • Measures are implemented to limit impacts of drought and better respond to drought. • Adequate and appropriate drought risk management essential infrastructure in place and stress tested for times of drought.	*Critical to regional-level monitoring of, and improvement to, the Plan will be an on-going regional oversight group (ROG) comprising of the Plan 'owner(s) and key stakeholder representatives.* *This group would have the role of initiating actions in line with the plan, reviewing progress against the plan objectives and making changes to the plan as needed to maintain its relevance and usefulness.* While some of these indicators will be captured in national surveys and statistics as above, monitoring actions that should be taken at regional level by the ROG would include: • Monitoring and reporting of regional level indicators captured as part of local government surveillance, surveys and annual reporting. • Liaising with the regional Drought and Innovation Hub to ensure key indicators for the region are captured and provided over time. • Recording case studies of changes made and benefits evident because of actions taken from the implementation of the plan.
Outcome level: Success measures and intermediate outcomes 2–4 years		
Actions have been taken based on the plans • The majority of plans have had elements implemented. • Primary producers and businesses supported to improve their sustainability and resilience.	**The achievement of Key Pillars to underpin the achievement of objectives are:** a) Drought monitoring, early warning systems and plans for responses are being developed and refined.	**Monitoring actions that should be taken at a regional level by the ROG include:** • Recording of steps taken, actions initiated, and resources gained that have been triggered by the plan framework, strategies and planned actions. • Annual reporting and review of plan implementation, engagement, participation, actions, barriers and opportunities to regional stakeholder organisations and government – and changes to the plan made as needed to best meet regional needs.

FDF Standard Indicators	Specific Regional Indicators	Evaluation Approach
Outcome level: Success measures and intermediate outcomes 2–4 years *continued*		
Decisions have been made to implement • Regional representatives have considered and planned incremental, transitional and transformational opportunities to strengthen resilience. • Identified actions, pathways and opportunities (including innovative and transformative) to improve regional drought resilience, mitigate risks and adapt to change. • Communities use relevant data and information to better understand their resilience to plan for drought. **Capacity has been developed** • Regional leaders are in a stronger position to implement strategic actions, adapt to change and take advantage of opportunities to build economic resilience as they arise. • Partnerships, networks and engagement are built between stakeholders managing natural resources. • Increased community understanding of the region's current and future drought resilience, considering the region's unique economic, environmental and social characteristics. • Natural resource management capability is improved across region. **Regional stakeholders are involved** • Plans have buy-in from key stakeholders in the region. • The number of, and participation in, local networks and programs to enhance drought resilience increases. • Communities share knowledge, collaborate and partner with government more often to build drought resilience. • Greater sharing of learnings related to drought resilience between communities.	b) Those most vulnerable and at risk of droughts have been identified and steps taken to address their vulnerability. c) Measures have been initiated to limit the impacts of and respond better to drought. **Action steps have been taken in line with the Action Plan tables around the key outcome areas of:** • People, culture and community • Economy • Landscape and natural environment • Infrastructure and built environment. Implementation steps have been undertaken as per the Communication engagement table.	Should external evaluation be undertaken – as well as taking the national data, above information and annual review into account (against planned actions) – a range of regional stakeholders should be interviewed/ surveyed to gauge their understanding, engagement and actions they have taken because of plan guidance and initiatives. **Types of questions should include:** • Their level of awareness and understanding of the plan – and how aware they think others are. • How invested they are in engaging with other stakeholders around the plan implementation. • Whether they are confident they have the skills and resources to make changes highlighted. • What decisions and/actions they have taken – or are aware of – that have been initiated because of the plan. • How the plan has impacted on extra resourcing or support to the region to improve drought resilience. • How they think the plan has added value and made a difference in increasing drought resilience in the region. • What is working and what needs to change with respect to the plan and its effective on-going implementation. • Organisations nominated for actions in the plan including for the communication engagement activities, should also be interviewed to review what was undertaken, how it was done, what response was gained and, if not, why not. Case studies should be further captured/ developed to understand/demonstrate the program logic/theory of change and inform recommendations for changes/support needed to maximise plan effectiveness.

Image: Longreach. *Source: RAPAD.*

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**Resource document was published under this department name. Department names may have since changed. For more information, please refer to* A summary of changes to departments of government *.*

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