

# REGIONAL DROUGHT RESILIENCE

COMMUNITY CONSULTATION REPORT *for the*  
INLAND GREAT SOUTHERN



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Project was carried out February to May 2022  
Project Code: COM13



## ACKNOWLEDGEMENTS

We acknowledge the Noongar/Nyungar peoples of the Great Southern region as the traditional custodians of this land and we pay our respect to their Elders past, present and emerging.

South Coast NRM was contracted by Great Southern Development Commission in early 2022 to undertake this project. The Department of Primary Industries and Regional Development and the Great Southern Development Commission with funding from the Australian Governments Future Drought Fund are delivering a regional drought resilience plan for the Great Southern (Inland). The regional drought resilience planning process brings together regional organisation, local government, communities, and industry together to prepare for future drought risk and identify priority actions to build drought resilience.

This project compliments the indigenous consultation work carried out by South Coast NRM and included in the '*Great Southern (Inland) Regional Drought Resilience Plan report on Aboriginal Community Consultations*', and the two reports should be read in conjunction.

South Coast NRM would like to thank everyone who participated and provided their valuable time to give input into this project. We would also like to thank Kaylene Parker from Great Southern Development Commission for her support.

This document was prepared by South Coast NRM staff; Kylie Fletcher, Natalie Reeves, and Letisha Newman and peer reviewed by Justin Bellanger, Johanna Tomlinson, and Chrissy Kerin.

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# EXECUTIVE SUMMARY

Drought resilience is a key issue for many regional communities throughout Australia. This report summarises the key concerns arising from community consultation carried out for the inland Great Southern Regional Drought Resilience Plan.

This project was delivered by South Coast Natural Resource Management (South Coast NRM) between February 2022 and May 2022 with South Coast NRM delivering the following services:

- Interviews with four grower groups, six farmer champions, and two agronomists
- Delivery of two workshops

Consultation identified underpinning concepts for drought resilience, with consistent communication critical and relevant to all actions. Ongoing conversations need to take place to set the groundwork and build recognition of drought impacts and what's needed for resilience. To support this, a systems approach is needed, recognising that a farm does not sit in isolation from its surrounding catchment and community. Drought impacts are felt well beyond the farm boundaries. In delivering this approach it is important that it is collaborative and leads to both individual and community empowerment.

Discussion of information generated through consultation is presented around the key themes of understanding drought impact, drought risks, regional needs and priorities, and enhancing resilience.

Information generated through the workshops and interviews was then collated into a project list grouped into themes around three strategic priorities. Within each theme, actions are grouped around key action areas which are supported by knowledge, innovation and extension; collaboration and capacity; and related policy and planning needs.

These are presented in Table 1.

Table 1 – Strategic Priorities for the Great Southern Region

Number	Strategic Priority	Themes
1.	Grow the self-reliance and performance (productivity and profitability) of the agricultural sector.	Water access Innovation Planning Diversification and value adding
2.	Improve the natural capital of landscapes for better outcomes.	Monitoring of environmental condition Improving and maintaining natural capital Rehydrating landscapes
3.	Strengthen the wellbeing and social capital of rural, regional and remote communities.	Strong and healthy communities

Key recommendations of this project are provided on the following pages.



# KEY RECOMMENDATIONS

Consultation with Grower Groups, farmers, South Coast NRM Reference Groups and local agronomists identified key recommendations to increase drought resilience.

- 1. Water access:** Enabling sustainable access to water, both in considering the environmental and off farm needs, as well as ensuring consistency of supply
- 2. Innovation:** Continue to support and celebrate farmer innovation with extension and additional information such as cost benefit analysis to assist decision making of innovative project uptake.
- 3. Planning:** Drought response needs to be holistic and recognise that the impacts of drought and a changing climate do not stop at the farm boundary. In delivering drought planning and mitigation actions, communications consistency is critical and relevant to all actions. Building recognition of the impacts of drought and what's needed for resilience should be an ongoing conversation - set the groundwork in the good times to prepare for the bad times.
- 4. Diversification and value adding:** The extension so information on a yearly basis is useful for preparing for drought and a changing climate, and could include seasonal outlook, recommended tools, support available and assist with ensuring the risks of drought and dry season remains at the forefront. For example an online portal specific for Western Australia and communications need to be strategic and support the desired outcomes of building resilience.
- 5. Monitoring of environmental condition:** Timely access to information at the right times is required to ensure that any management decisions are made with the best available information.



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*It's mentally draining during tough times, we need to be proactive in making decisions. Other issues can make it overwhelming and that really affects our family. Drought has a huge financial impact and we have to make hard decisions such as destocking and decreasing our cropping program.*



- 6. Improving and maintaining natural capital:** Building and restoring natural resources is essential to supporting landscape scale resilience to drought. Consideration needs to be given to pre and post drought natural resource needs.
- 7. Rehydrating landscapes:** Promote the principles of rehydration and support the process through education and funding for on ground trials and demonstrations.
- 8. Strong and healthy communities:** Individual mental health and social wellbeing needs to be supported by a range of initiatives from access to counselling and support from mental health professionals. At the community level supporting health and wellbeing can be through community gatherings and include supporting town centre revitalisation projects, landscaping activities, as well as improving facilities and support access.



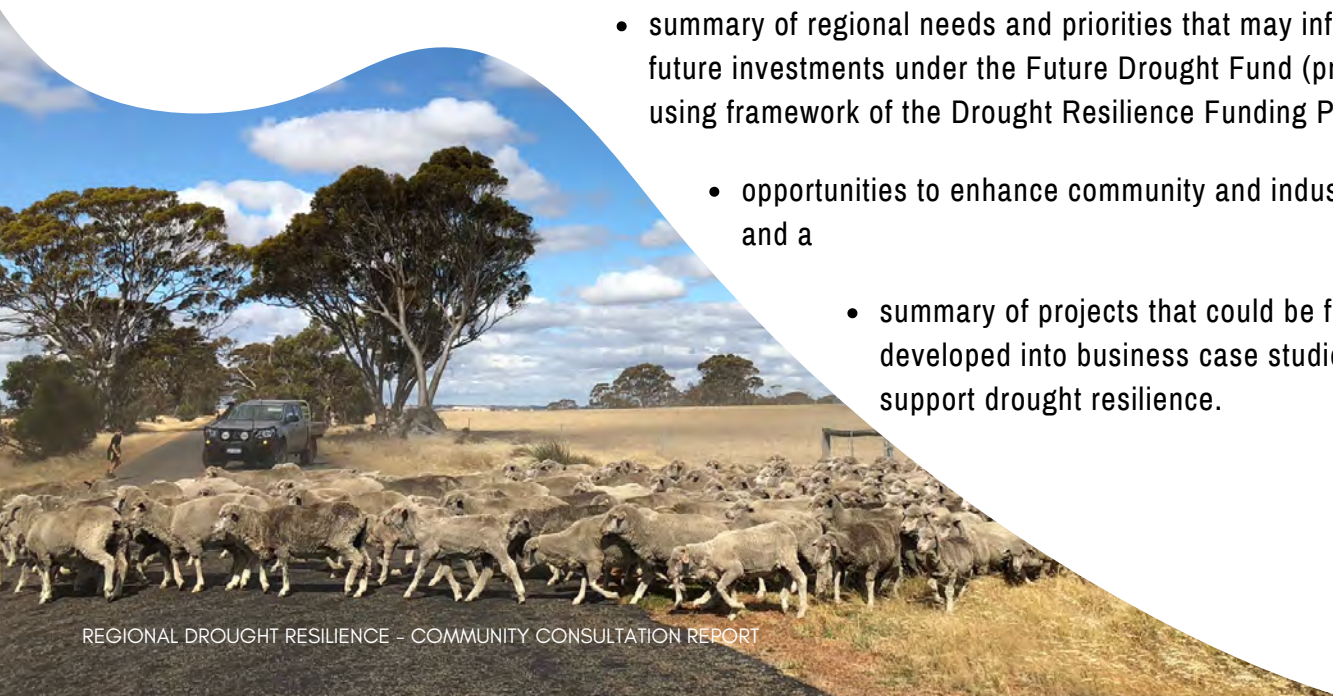
# INTRODUCTION

The Future Drought Fund Regional Drought Resilience Planning (RDRP) program funded by the Australian Government aims to support regional organisations, local government, communities and industry to partner together to develop regional drought resilience plans. The Regional Drought Resilience Plan for the Inland Great Southern will identify and guide actions to build the region's resilience to future droughts, with a focus on agriculture and allied industries.

Regional drought resilience plans are community led plans, being developed in regions around Australia, that present the historical and expected future impacts of drought in the focal regions, based on the best available evidence. The plans will also contain an assessment of drought risk and adaptation pathways, based on expert input and extensive stakeholder consultation. Finally, plans will include a pipeline of investible drought resilience projects that address the specific needs and priorities of agriculture and allied industries and inform future investments in drought resilience and agricultural adaptation in the regions.

This report supports the development of the drought resilience plan for the inland Great Southern through provision of community consultation and stakeholder engagement which will contribute to the plan's development. The key focus of this report is to summarise the findings and outcomes of the stakeholder engagement process and provide insights into:

- stakeholders understanding and knowledge of the historical and likely future impacts of drought on the Shire and local communities;
- stakeholders identified risks related to drought;
- summary of stakeholder responses that have been effective in the past and gaps in these responses that could be improved on in future;
- input/comments on the vulnerability assessment framework;
- stakeholder comments on appropriate drought indicators for Western Australia;
- suggestions for a vision for a resilient drought region;
- summary of regional needs and priorities that may inform future investments under the Future Drought Fund (preferably using framework of the Drought Resilience Funding Plan).
- opportunities to enhance community and industry resilience; and a
- summary of projects that could be further developed into business case studies that support drought resilience.



# METHODOLOGY

This project was delivered by South Coast Natural Resource Management Inc. (South Coast NRM) between February 2022 and May 2022. Due to the COVID pandemic, one-on-one consultations were delivered via telephone and workshops were delivered online.

South Coast NRM undertook to deliver the following services:

- Desktop research
- Interviews with four grower groups, six farmer champions and two agronomists
- Delivery of two workshops

## DESKTOP RESEARCH

A review of existing plans and documents containing actions relating to drought and drought resilience was carried out. Documents reviewed included Southern Prospects 2019-2024, Climate Adoption Addendum to Southern Prospects 2011-2016 and the South Coast NRM Investment Plans. Extensive community consultation processes have been a cornerstone in the development of these documents. Projects identified through the literature review that are related to drought but are yet to be implemented have been incorporated in the project list of this report.

## GROWER GROUP INTERVIEWS

Representatives (the most senior staff member) from four grower groups, as nominated by the Great Southern Development Commission, were surveyed. The groups were Fitzgerald Biosphere Group (FBG), North Stirlings Pallinup Natural Resources (NSPNR), The Gillamii Centre, and Southern Dirt. In-depth telephone interviews were undertaken. A copy of the questions is included in the Appendix 1.

## FARMER CHAMPION INTERVIEWS

Farmer champions were proposed by the grower groups consulted and then short listed by South Coast NRM. In-depth telephone interviews were undertaken. The selected champions were chosen to provide a diversity of land uses and cover different localities within the plan area. The main local government area of the farmer champions operations and the main land uses are as per Table 2.

The farmer champion interview questions were provided by the Great Southern Development Commission. Minor edits were made to ensure ease of interview and key outcomes would be addressed. A copy of the questions is provided in Appendix 2.

Table 2 – Farmer champions’ location and land use.

Champion	Shire	Land Use
1.	Jerramungup	Sheep
2.	Broomehill/ Tambellup	Crop/ sheep
3.	Woodanilling	Sheep
4.	Kent	Crop/ sheep
5.	Gnowangerup	Crop/ sheep/ other
6.	Katanning	Crop/ sheep
7.	Cranbrook	Crop/ sheep

## AGRONOMIST INTERVIEWS

Agronomists were proposed by the grower groups consulted and then short listed by South Coast NRM. In-depth telephone interviews were undertaken. The selected agronomists were chosen due to their ability to provide feedback from across a broad landscape and variety of land uses. Individuals were approached and provided their responses through their role. These responses should not be seen as representative of the entire company. A list of the agronomy companies interviewed is included in Table 2. A copy of the questionnaire is provided in Appendix 3.

Table 3 – Agronomists interviewed, their locality and interview date.

Company	Locality/ Shire	Interview Date
Farmanco	Kojonup	9 May 2022
Nutrien Ag Solutions	Jerramungup	10 May 2022

Survey data from farmer interviews, grower groups and agronomists were captured using survey monkey. Data from these interviews is included in Appendix 4.



# WORKSHOPS

It was initially proposed that two face to face workshops would be run, however, due to the ongoing COVID19 pandemic and the restrictions and risks around face-to-face gatherings online workshops were delivered.

## WORKSHOP 1 – SOUTH COAST NRM REFERENCE GROUPS

Three independent group consultation sessions were held with three South Coast NRM reference groups; Aboriginal Reference Group, Healthy Environments Reference Group and Land and Water Reference Group. The South Coast NRM reference group are long standing and respected reference groups with representation from key stakeholders across the south coast including State and Local Government agencies, community members and industry and technical experts. Their key task is to ensure they guide the delivery of Southern Prospects - The Regional Strategy for NRM. Specifically, the reference groups:

- Provide recommendations and advice on projects and key regional issues;
- Provide technical oversight into the delivery of Southern Prospects;
- Act as ‘think tank’ and problem-solving vehicles for new and existing projects.

Meeting dates are included in Table 3 and a list of attendees is provided in Appendix 5.

The Workshop 1 consultation focussed on addressing the following questions:

- What do you see as the biggest impact of drought?
- What priorities and/or actions do you feel will help increase drought resilience in the region?
- What do you see as key knowledge gaps?
- What resources are there already available that might help to inform a drought plan?

Data capture for workshop 1 was achieved using a virtual whiteboard and sticky notes. Information generated from these workshops were incorporated into the project list. A copy of these whiteboards is included in Appendix 6.

Table 3 – Reference Group consultation dates

Healthy Environments	24 February 2022
Aboriginal	17 March 2022
Land and Water	29 March 2022

## WORKSHOP 2 – COMMUNITY

The community forum was held online due to COVID restrictions, on Monday 2nd May 2022 via Zoom. Promotion of the workshop was carried out through social media (Appendix 7) and through direct email invitation (Appendix 8). Invites were sent to a total of 63 people.

The forum flyer is included in Appendix 9. Attendance at the workshop was targeted to key stakeholders across the region.

The community forum was professionally facilitated by an external consultant as well as a graphic recorder to capture the ideas and themes graphically that were generated during the session.

The speakers for the forum included:

- Great Southern Development Commission
- Department of Primary Industries and Regional Development
- South Coast Natural Resource Management

The agenda for the forum can be found in Appendix 10. The format for the forum included:

- presentation of the Drought Vulnerability Assessment for the Great Southern,
- review of the vulnerability and adaptive capacity maps and drought definition,
- summary of preliminary consultation to date, and
- through breakout groups in three separate themes, collect feedback on project ideas and gaps.

Data capture for workshop 2 used GroupMap. All ideas are collated and presented in Appendix 11. Ideas captured from this workshop have been incorporated into the project list. The consultant's report on the workshop can be found in Appendix 12.



# KEY FINDINGS & DISCUSSION

In delivering drought planning and mitigation actions, communications consistency is critical and relevant to all actions. Building recognition of the impacts of drought and what's needed for resilience should be an ongoing conversation. It is important to set the groundwork in the good times to prepare for the bad times.

A drought plan needs to provide a framework for improving resilience. A lot can be learned from what's already happening within our communities and farming businesses. At the same time, flexibility is needed to allow for new concepts and ideas to be trialled.

It is also important to recognise that many of the actions identified in the following sections are interdependent. It is noted that outcomes of the surveys present an experienced and broad view of the region notwithstanding the small sample size. Six of the seven champions had lived in their area for more than twenty years and one had been in the area for more than 10 years.

Interview responses indicate a strong level of resilience within these farmer champions and their businesses along with regional climate differences. The responses indicate the champions:

- recognise adverse seasonal conditions and fully understand the impacts of dry seasons on their business.
- Business planning was seen as helping to limit the stress, with the need to be adaptable and flexible seen as invaluable.
- The need to read the season early and make early decisions was seen as important. Changing climate trends and overall impacts on agriculture were also noted.

Farmers noted the definition of drought is very Eastern States focussed and not relevant to Western Australia, suggesting developing a state specific drought definition is necessary. This could then assist with supporting appropriate drought responses by providing a framework to assess impacts. There is a need to ensure the criteria takes into consideration regional differences, in particular growing season rainfall. It would help to validate how difficult some seasons are locally, without having to compare to other regions with different rainfall patterns and land uses.

Farmers were asked how they would define the difference between drought and dry seasons and five responses defined drought as receiving exceptionally lower than average rainfall for more than one season of which three respondents quantified this as lower than 20% of average rainfall. The remaining two responded that they had not experienced drought.

# DROUGHT IMPACTS

The following impacts are a summary of those identified from all stakeholder engagement.

## FINANCIAL IMPACTS

- Financial and enterprise impacts including the decrease in income and the increase in expenditure as items such as feed and water are needed to be brought in.
- It was noted that reduced production in dry seasons leads to financial impacts throughout rural towns and communities, described as slowing everything down and reducing community spending. This in turn affects community confidence and the willingness to get behind local projects.

## FARM BUSINESS PLANNING

- There are additional labour demands with the need to carry out activities such as confinement feeding and water carting for some businesses identified.
- Staff retention was also seen as a key issue, with less staff on a farm during dry seasons, leading to an increase workload for those that remain.
- Impacts on farm enterprise were also noted such stocking, spraying, affecting decision-making with risk aversion and reducing progressive measures
- Agronomists noted that drought or dry seasons have encouraged better farming practices and planning, bringing farmers attention to improvement required. Some farmers have worked harder to increase drought resilience although there is room for some enterprises to improve their cost structuring and farm planning.
- There are many impacts that need to be addressed that take time, for example restocking and rebuilding natural capital.

## RECOVERY TIME

- Recovery times from drought are not immediate, especially for stock related enterprises. It can take considerable time to restock to pre-drought levels

## SOCIAL AND MENTAL HEALTH

- Reduced amenity, and quality of life, such as dying gardens, lack of water for recreation (e.g. swimming, need for shade).
- Mental health impacts. Lack of recreational opportunities (e.g. fishing). Lack of bush foods, leads to less family gathering opportunities on country.
- Increased stress and mental health impacts were identified and seen as something that affects both the individual, the family unit and the community as a whole. Mental health was also seen as a community wide issue, with the stress of drought impacting the broader community.
- Opportunities to bond over a shared stress were also expressed. One respondent articulated:



“It's mentally draining during tough times, we need to be proactive in making decisions. Other issues can make it overwhelming and it affects family. Drought has a big financial impact and we have to make hard decisions such as destocking and cropping decisions.”



## COMMUNITIES

- The farmers surveyed also reflected on the broader impacts of drought or dry seasons on their communities and region.
- The on-going impacts of climate change and extreme weather events on the broader community was also noted.

## VOLUNTEERING

- Increased on farm workload contributes to less volunteering, less time and the perception of a reduced commitment to the community.

## NATURAL RESOURCES

- Natural resource management was noted as one of the first things that are cut in a dry season, with no extra time or money for activities like revegetation. The impact on natural resources were identified, with associated decreases in ground cover and the need for increased soil cover and care.
- Farmer champions interviewed identified that investment in natural resource management and natural capital protection activities were the first to be cut. It can be assumed that they are also the last activities to be reinstated post drought.

## VEGETATION

- Loss of native vegetation exacerbates the desertification of the area. Decline in vegetation condition, which can lead to an increase in pests (weeds and animals).
- Death of plants leads to an increase in fire loads. Implications for cultural burning and fire management into the future.
- Shallow rooted species most at risk, which can include bushfood plants. If foods aren't in the bush, then family gathering times don't happen (social impact).
- Changing vegetation, not just deterioration. Some species may be expanding range.
- Fire impacts due to drought may impact seed set of key species which could lead to a loss of ecological niches (e.g. montaigne heath).

## WATER

- Impacts on waterways, rivers and estuaries due in part to decreased rainfall. This can lead to decreased flushing and even increased duration of estuary mouth closures, which has an impact on aquatic diversity.
- Potential for increased nutrients in waterways leading to algal blooms. This will have flow on impacts on adjacent vegetation from increased salinity and impacts on aquatic biota.
- Estuaries and lakes have lost their wildlife. The amount of salt in rivers has increased and had a flow on effect on aquatic biota.
- Water allocation will be an issue. Balancing of water access between economic and environmental needs, as well as allowing for groundwater recharge may be contentious.

## LANDSCAPE

- Soil erosion either due to wind erosion or water erosion when the rains finally return.
- Bushfire risk from dry vegetation threatening all environments (increased fuel load).
- Long term impacts on natural systems such a peat swamps, increased salinity, changing vegetation communities and ultimately changing whole ecosystems.

## CLIMATE

- Increased variability in weather conditions and slightly more intense events (e.g. droughts followed by floods).
- Important to recognise that impacts span a spectrum and may be cumulative. For example, a drought may not be seen as severe, but impacts might be greater due to a lack of recovery between stress events.

## DROUGHT RISKS

The risks of drought can be understood from the impacts of drought. This section focusses on the risks identified through the stakeholder consultation; it does not include all risks of drought.

## WATER AVAILABILITY

- Access to water and competition for access during periods of drought was seen as a key risk, especially competition with other industries.

## ECONOMIC

- On farm, an economic risk of drought includes destocking and restocking. Access to appropriate stock and within a necessary timeframe and within budget when a whole area is attempting to restock can be difficult.

## BUSHFIRE

- The drier than average conditions can lead to vegetation drying and death, leading to a potential increase in fuel load. Bushfire frequency and ferocity is a risk to natural capital, with impacts on vegetation health, condition and recruitment. Disturbance to these ecosystems by fire can also lead to increased weed incursions and the lack of groundcover post fire can increase the risk of erosion. Drought can also increase the probability of ignition and the rate at which fire spreads.

## SALINITY

- Both through primary and secondary salinisation, is an issue that exacerbates drought planning.

## MENTAL HEALTH

- The long-term mental health risks need to be considered. It is important to recognise and consider the impact on children growing up in stressful environments that can be caused from the impacts of drought.
- Family stress can deprive children of crucial developmental input and put them at higher risk of stress-related diseases and problems in later life. (<https://parentingscience.com/family-stress/>). Mental health support needs to be a big consideration.

## OTHER

- Time since last drought. Small, yet frequent droughts, have the potential to undermine resilience and recovery.

## INFORMATION GAPS

A range of information gaps have been identified, many of these are included in the proposed project list.

### VOICE OF THE YOUTH

- One information gap identified during the community workshop is the voice of the younger generation. Grower groups provide a format for younger farmers to connect with older farmers, however there is a need to include beyond the farmer community.

## BUILDING RESILIENCE

Looking at resilience through the lens of drought, there are a number of mechanisms available for promoting community and industry resilience. Resilience opportunities identified through the stakeholder engagement include:

- Strengthen links between community members
- Water access
- Planning and preparing for drought, which should include a locally relevant definition
- Communication and information access. Information needs to be provided to the right people at the right time.
- Understanding. This could be supported by benchmarking of regions or localities and provide an understanding of where these areas sit on a scale of resilience. This information could also be used to identify opportunities for improvement.

### SOCIAL RESILIENCE

- Supporting community. This could include supporting community events which help to contribute to social resilience. It is important for people to be there for each other, and this can be facilitated through get togethers and community activities. Encouraging community ties socially creates a more resilient community in time of stress.
- Retaining people within the community. This helps to maintain social vibrancy.
- Grower Groups Grower groups and landcare groups have a critical role to play in supporting drought resilience both at the community and industry level. These groups provide a forum for enabling connection between local farmers, acting as a community support network. They also enable the demonstration of on-ground activities and are valuable in demonstrating locally relevant drought resilience activities. Support for these groups and their activities should be ongoing, which was supported by responses from farmer champions.
- Proactive awareness and education activities at both the community and industry level. Farmer champions identified the need to arm everyone with tools to combat climate change. Awareness and education should also include farmer to farmer learning opportunities, as well as training in areas such as mental first aid.
- financial support and grants however were seen as highly useful in supporting community events to bring together people and build connection and support. Grants should be considered in building community resilience. When designing a grant program, keep in mind the end user of the application and keep the process as simple and timely as possible.

## ECONOMIC RESILIENCE

- Water infrastructure that is appropriate and maintained is needed to support economic resilience. Champion farmers that were interviewed identified good quality water infrastructure and maintenance the most important dry season or drought mitigation strategy they use along with stock management and precision ag techniques.
- Access to water was seen as necessary to ensuring resilience. Some options suggested by farmer champions included:
  - Increased water storage, dams, catchments.
  - Monitoring of community dams,
  - Survey of users
  - Investigate options for town-site stormwater run-off and re-use
  - Stocktake of water use and needs on farm. This water stock take is useful to understand needs and enabling pricing of water in the system. Not enough farmers do this.
  - Support innovation. Spray water is biggest use of water. Future focus, green-on-green spraying may decrease 90% water use of post-emergent spraying and reduce chemical use as well. Innovations can give results.
  - Providing information and education on topics like desalination and finding better water sources on farm and farm hydrogeology
  - Improve and focus on on- farm water management, rather than rely on outside assistance and water supplies.
- Business planning - respondents noted the need for good business models and planning to assist in adaptive farm management. Good planning was seen as helping to limit the stress, with the need to be adaptable and flexible seen as invaluable
- Planning is seen as critical for resilience. Planning needs to be supported by training and education, supporting farmers to find the weakest link in their farm business, identify tools on how to address this and implement.
- Training of agricultural consultants in addressing drought issues on farm was identified as essential to supporting economic resilience. Champions identified that there is variable quality amongst consultants and that there is a role for government in assisting with identifying honest brokers and manage good quality information.
- Financial support can also help to aid resilience and in some cases provide incentives to trial resilient practices. Farmer champions saw financial support as useful in some areas, but unnecessary in others. Support for water access infrastructure was seen as useful, however there was an overall dislike of subsidies. One farmer summed it up as: "Avoid temptation to offer low interest loans, handouts and grants." However, incentives should be considered. Incentives are defined as a thing that motivates or encourages someone to do something. Typically, this reduces the risk around new and innovative ideas so that someone will trial them. One farmer champion highlighted that "State water grants were very good, focussing priorities on capital water infrastructure input so this was shifted up list of priorities." Incentives should be considered as an option in the roll out of any new practices, particularly those that have broader benefits. A different champion provided the following comment: "Supports co-investment projects where farmer matches dollar for dollar, improves motivation and success and addresses rorting".
- The dislike of financial support was primarily related to subsidizing farm businesses. One farmer champion provided the following: "Unsubsidised Australian farmers have lead to more resilience and innovation." Another champion highlighted that financial support is: "unfair to farmers that do enough to be profitable, and it supports bad managers".

## ENVIRONMENTAL RESILIENCE

- Building natural capital. Ensuring our natural resources are in good condition prior to drought can help with their resilience.
- Ensuring the needs of the environment are considered in water allocations. Many ecosystems and species require water.

## REGIONAL PRIORITIES

Regional priorities identified through stakeholder consultation include:

### ACCESS TO WATER

- Water is critical during drought. Consideration needs to be given to reducing distances between off farm water sources and increasing the capacity of community water sources. Investigating alternative water sources, e.g. desalination.

### PEER TO PEER LEARNING

- Opportunity to learn from other regions about their experiences e.g. learning from inland (WA eastern wheatbelt) experience. This needs to include opportunities for intergenerational transfer of knowledge and experience.

### COMMUNICATIONS AND EDUCATION

- Broad and diverse methods of communication needs to be considered. This needs to include timely information around topics like accessing water in the local area.
- Building knowledge and skills around managing drought impacts.

### INNOVATION

- Projects to include components like a cost benefit analysis. For example, extending information around desalination and how it works would be well supported by additional information provided by a cost benefit analysis. This would help to improve decision making and possible uptake. Important to recognise the role that government and independent community groups (such as grower groups) have in extending this type of information.

### ACCESS TO MENTAL HEALTH SUPPORT IN REGIONAL AREAS.

- The need to begin planning for support early to build trust and increase likelihood of service access when in times of drought.

### PROTECTION OF MARGINAL AND FRAGILE LANDSCAPES

- Protection of natural capital.
- Protection of marginal agricultural land to maintain productivity values.

# PROJECT LIST

These regional needs and priorities have been further refined and developed into projects and included in this project list section. Projects have been grouped around three key strategic priorities.

These are:

**STRATEGIC PRIORITY ONE:** Grow the self-reliance and performance (productivity and profitability) of the agricultural sector.

**STRATEGIC PRIORITY TWO:** Improve the natural capital of landscapes for better outcomes.

**STRATEGIC PRIORITY THREE:** Strengthen the wellbeing and social capital of rural, regional and remote communities.

Each strategic priority is then separated into themes. In each theme, actions are grouped around key action areas which are supported by knowledge, innovation and extension; collaboration and capacity; and related policy and planning needs.

Knowledge, innovation and extension is a foundational area. It generates the required learnings to improve our collective understanding of what is required for drought resilience. It is also about sharing those learnings more broadly to ensure that there is a base level of understanding.

Collaboration and capacity are about the ability and the space to work together to achieve drought resilience.

Data generated and discussed in previous sections has been used to formulate a series of proposed projects, which are presented below. Where possible, project ideas have been amalgamated.



**STRATEGIC PRIORITY ONE: Grow the self-reliance and performance (productivity and profitability) of the agricultural sector.**

**Theme 1: Water access**

Theme: Water access - that there is sustainable access to sufficient good quality water to meet on farm needs.

Water is essential for life, and never more so than in a drought. This theme is about enabling sustainable access to water. Sustainable in this context means both in considering the environmental and off farm needs, as well as ensuring consistency of supply.

**Water supply**

- Support the increased use of non-potable water supplies such as groundwater and the use of desalination on-farm (or other alternative technology) by providing access to required knowledge and skills from a regional hydrogeologist.
- Provide funding assistance to farmers and local government to develop alternative water supplies and trial innovative practices to reduce reliance on priority water supplies.
- Through liaison with the Department of Fire and Emergency Services, ensure that priority water assets for firefighting needs are identified and maintained.
- Ensure drinking water protection areas are not impacted and that source protection plans are implemented.
- Ensure continued protection of priority water assets.

**Water quality**

- Ensure that there is access to water testing within the local community to allow for management decisions to be made in a timely manner (e.g. salinity testing).
- Investigate and promote cost effective water quality treatment options to improve water quality on farm.

**Knowledge, innovation, and extension**

- Review community, business, and industry non-potable water supply needs. This information will help to support planning. Investigate options for improving use efficiency.
- Update the 2014 Great Southern Regional Supply Strategy
- Support through grant funding for on-farm water harvesting innovation
- Undertake trials to demonstrate desalination options.
- Review options to re-use and recycle water (e.g. saline water under towns)
- Monitoring of groundwater resources to ensure sustainable use.
- Investigate options for dam designs. Look to nature for design options and trial technologies to reduce evaporation and increase water retention. Look at the role of smart farm technology in managing on farm water.
- Provide a yearly notice on the water supplies within the local area and how to access (e.g. standpipes locations and access process). This could be sent out with shire rate notices.
- Monitor and model potable ground water resources.
- Increase water efficiency through communications and regulation.
- Promote and communicate information to farmers to assist better water planning, water storage and water efficiency
- Support farm water audits, installation of monitoring infrastructure and produce individual water management plans with recommendations for improvement.

**Collaboration and building capability**

- Provide education and support to farmers to capture and store as much non-potable water as possible.
- Increase farmer's awareness of the capacity of on-farm water supplies to support agriculture

- Farm business planning to address droughts (access to professional advice) including farm planning (e.g. land use, water, infrastructure etc).
- Lobby government to introduce rebates for water infrastructure installation on-farm
- Reinstate a regional hydrologist to provide independent advice to farmers.
- Provide training in water quality testing and advice on equipment to farmers (e.g. easy to use, economically feasible, hand held devices).

#### Supporting policy and planning needs

- Water deficiency declarations – the process needs reviewing and updating.
- Continue to maintain community water infrastructure needs such as to provide reliable infrastructure when needed during a drought.

## Theme 2: Innovation

Theme: Support the continuing evolution of agricultural practice

Western Australian farmers are highly innovative, especially in dryland agricultural areas. This innovation ought to be celebrated and supported.

#### Farming innovation

- Continue to support on-farm innovation (no till, low input farming, cropping, technology)
- Support land managers to use available industry approved tools to calculate carbon footprint and to make management decisions to mitigate the impact of climate change, drought and dry seasons on land and economic assets.

#### Smart farm technology

- Support the adoption and use of technology related to water management and use on farm.

#### Knowledge, innovation, and extension

- Continue to support local grower groups who provide a valuable role in extension, demonstration and building networks.
- Provide more detailed crop and pasture modelling based on south coast soil types and climate scenarios.
- Identify local champions that are implementing climate change adaption and dry season/drought preparation on farm, document and share widely.
- Share information about practical and achievable on farm mitigation of climate, dry season and drought impacts.
- Work with grower groups in research and development specific to best management practices for different soil landscape types.
- Share stories and messages about dealing with difficult seasonal conditions to ensure that knowledge is not lost. This should be supported by development and promotion of case studies and demonstration sites.
- Use demonstration sites to increase awareness and encourage adoption of effective on-ground works and appropriate innovation by land managers.
- Improve farmers knowledge and skills relating to infrastructure and practices to mitigate climate change, dry season and drought.
- Ensure that there are appropriate resources available to support smaller landholders, who may not typically have the same knowledge and skills as larger land managers

#### Collaboration and building capability

- Support local community and production groups as well as land managers to implement drought adaption initiatives.
- Engage with key industry stakeholders (MLA, GRDC) and local grower groups to continue to identify options and opportunities for collaboration.



#### Supporting policy and planning needs

- Protection of high value agricultural land.

### Theme 3: Planning

Theme: Farm Business Planning: agriculture and associated businesses in the inland Great Southern are supported by good planning and access to information.

#### Climate knowledge

- Increased understanding of climate and weather patterns and forecasting by farmers. This will enable better understanding of seasonal outlooks, which will in turn support planning and management decisions on farm.

#### Farm planning

- Financial assistance for whole farm planning, planning to address bushfire risk, planning drought tolerant gardens
- Continue support for the Farm Management Deposit Scheme allowing farmers to make tax deductible deposits.
- Support farmers to develop drought specific sections of their farm plan that identifies drought actions. The plan should identify the triggers for specific management actions to be implemented (e.g. destocking, how to destock and protect herd/flock genetics, etc.)

#### Drought

- Continue to improve measurements of drought impact, how it is measured, and how it is reported.

#### Knowledge, innovation, and extension

- Promote a definition of drought and the drought criteria.
- Promote drought forecasting, use of seasonal outlooks and other information to forecast the likelihood of drought and communicate this information broadly to farmers and the general community.
- Risk assessment training – provide training where required, on how to carry out a risk assessment. Drought is a serious risk to farm businesses and ought to be planned for appropriately.

#### Collaboration and building capability

- Showcase the innovation, collaboration and capacity building that is occurring within the region.

#### Supporting policy and planning needs

- Establish an agreed Western Australian definition of drought.

### Theme 4: Diversification and value adding

Theme: Diversification/value adding (expanding the income base).

#### Carbon farming and carbon neutrality

- Promote carbon farming opportunities, including the ecological and economic perspective
- Provide support to land managers to understand carbon footprint, options for reduction.

#### Alternative energy

<ul style="list-style-type: none"> <li>Promote opportunities for diversification through alternative energy opportunities (e.g. hydrogen/wind).</li> </ul>
<p>Value adding</p> <ul style="list-style-type: none"> <li>Promote opportunities to value add to existing commodities.</li> </ul>
<p>Tourism</p> <ul style="list-style-type: none"> <li>Understand the impact of drought on tourism through a risk assessment approach.</li> </ul>
<p>Knowledge, innovation, and extension</p> <ul style="list-style-type: none"> <li>Ensure that there is a solid understanding of the strengths, weaknesses, opportunities and threats to being involved in the carbon market.</li> <li>Improve understanding of the impacts of drought on the supply chain. Identify what businesses may be impacted by drought. This information could be used to broadly increase awareness of the impacts of drought beyond the farm boundary.</li> </ul>
<p>Collaboration and building capability</p> <p>No projects identified.</p>
<p>Supporting policy and planning needs</p> <p>No projects identified.</p>

**STRATEGIC PRIORITY TWO: Improve the natural capital of landscapes for better outcomes.**

**Theme 1: Monitoring of environmental condition**

<p>Theme: Monitoring of environmental condition.</p> <p>It is impossible to manage what you don't monitor. Timely access to information at the right times is required to ensure that any management decisions are made with the best available information.</p>
<p>Wetlands</p> <ul style="list-style-type: none"> <li>Re-establish the regional wetland monitoring program to provide insight into environmental condition and values of these habitats.</li> </ul>
<p>Groundwater</p> <ul style="list-style-type: none"> <li>Re-establish the regional bore monitoring program. Data generated from this monitoring program will provide insight into groundwater trends and help to identify at risk landscapes.</li> </ul>
<p>Threatened species</p> <ul style="list-style-type: none"> <li>Identify and monitor indicator species for changes in climate such as the Australasian bittern or the noisy scrub bird.</li> </ul>
<p>Knowledge, innovation, and extension</p> <ul style="list-style-type: none"> <li>Monitor climate change over time at a wider range of locations noting changes in pests and diseases, soil and hydrology.</li> <li>Ensure that information generated through the monitoring programs is broadly promoted.</li> </ul>

Collaboration and building capability

No projects identified.

Supporting policy and planning needs

No projects identified.

## Theme 2: Improving and maintaining natural capital

Theme: Improving and maintaining natural capital

Natural capital is the world's stock of natural resources, which includes geology, soils, air, water and all living organisms. Some natural capital assets provide people with free goods and services, often called ecosystem services. All of these underpin our economy and society, and thus make human life possible.

Vegetation and vegetation management

Revegetate areas including:

- Revegetate areas including:
- Unproductive agricultural land (identified by farmer), including establishing shelterbelts.
- Riparian corridors. Establishing riparian buffers on streams will help to reduce erosion and improve water quality.
- Priority areas as identified in the South Coast Macro Corridor Network report.
- Revegetation areas to include a diversity of locally endemic species, as well as groundcovers, shrubs and trees.
- Develop revegetation principles, including recommended species that are suitable for surviving drought. Key principle of revegetation is to build connectivity and provide habitat values.
- Protect areas of existing revegetation. Improve condition of the existing areas of native vegetation, through reduction of weeds and pests.
- Promote the use of perennials and native grasses in the farm business.
- Provide resources and for weed and pest control to reduce impacts on recovering/regenerating landscapes.
- Identify priority areas for carbon plantings and increased soil carbon storage.
- Monitor increased fire risk with vegetation management and fire research.
- On-country projects

Soil health

- Promote actions to improve soil health (e.g. increased soil cover, organic matter) and ensure that actions are implemented to retain a vegetative cover/structure to protect topsoil
- Promote actions to increase carbon and microbes in soil, increasing soil resilience - to help the soil act as a sponge
- Utilise a devolved grant or incentives to drive behaviour change in key areas of soil health, including but not limited to addressing soil acidity and maintaining ground cover.

Catchment hydrology/management

- Promote the principles of rehydration and support the process through education and funding for on ground actions/trials/demonstrations.
- Protecting all water courses with natural vegetation addressing erosion and poor water quality issues
- Build resilience by large scale re-vegetation, build connectivity and improve mosaic landscapes.
- Implement fencing, buffers, revegetation, invasive species management, surface water management etc.

Regenerative agriculture

- Promote and support the principles of regenerative practices.

<ul style="list-style-type: none"> <li>Promote the principles of grazing management (native pasture species, rotational grazing).</li> </ul>
<p>Knowledge, innovation, and extension</p> <ul style="list-style-type: none"> <li>Marketing of good land stewardship</li> <li>Update existing catchment plans, where necessary, to support holistic landscape scale actions.</li> <li>Quantify the impact of salinity on agricultural land and likely future extent.</li> <li>Evaluate landscape at risk of drought for economic profitability, promote options for land use change if not profitable</li> <li>Collect more information on threatened species biology and ecology particularly climate tolerances.</li> <li>Use demonstration sites to increase awareness and encourage adoption of effective on-ground works and appropriate innovation by land managers.</li> <li>Continue updating and implementing the Regional NRM plan (Southern Prospects).</li> <li>Continue to support grower groups as a mechanism for extension of information.</li> </ul>
<p>Collaboration and building capability</p> <p>No actions identified.</p>
<p>Supporting policy and planning needs</p> <ul style="list-style-type: none"> <li>Build climate projections into threatened species recovery plans</li> </ul>

### Theme 3: Rehydrating landscapes

<p>Theme: Rehydrating landscapes</p>
<p>Rehydrating landscapes</p> <ul style="list-style-type: none"> <li>Rehydrate landscapes. Promote the principles of rehydration and support the process through education and funding for on ground actions/trials/demonstrations.</li> </ul>
<p>Knowledge, innovation, and extension</p> <ul style="list-style-type: none"> <li>Investigate the concept of small water cycle and how this applies to the inland Great Southern.</li> </ul>
<p>Collaboration and building capability</p> <p>No actions identified</p>
<p>Supporting policy and planning needs</p> <p>No actions identified</p>

## STRATEGIC PRIORITY THREE: Strengthen the wellbeing and social capital of rural, regional and remote communities.

### Theme 1: Strong and healthy communities

<p>Theme: Strong and healthy communities</p>
<p>Social connections and community support</p> <ul style="list-style-type: none"> <li>Support and promote community events.</li> <li>Tap into existing community events. This has the advantage of not adding to the load of community members.</li> <li>Provide support for local government areas during droughts (ie. provision of officers linked to LGA's or existing landcare services to help deliver community support)</li> </ul>

- Develop a community support framework. Identify key opportunities for growing resilience.
- Provide opportunities for younger individuals to contribute to the future of the region.
- Encourage connection between generations - including older and younger farmers and share drought resilience solutions.
- Liaise with the Department of Education on activities to include in schools during periods of drought.
- Support and grow leadership in rural towns.

#### Supporting cultural heritage

- Ensure that cultural heritage management plans include the threats from climate change, drought and dry seasons.
- Communicate the potential climate responses and drought likelihood to Aboriginal people and managers of non-indigenous cultural sites.
- Conduct vulnerability assessments of both Aboriginal and Settler sites and the potential impact of drought.
- Increase capacity and collaboration with Traditional Owners. groups to help them manage key remnant vegetation sites and buffer climate change, drought and dry season impacts
- Provide opportunities for on-country projects, recognising that on-country activities enable intergenerational transfer of knowledge and build connection to country.

#### Visual amenity/water availability

- Maintain green spaces in towns during drought events. This could include ensuring that town spaces are vegetated with endemic, drought tolerant species. These could act as demonstration sites for drought tolerant gardens.
- Improve water security for strategic community water supplies
- Provide water supplies for school ovals, town ovals, recreational facilities
- Support towns in water re-use programs (sewerage, harvesting water, re-use of grey water)
- Increase firefighting tanks and supply of non-potable water
- Provide buffer tanks to support regional communities from the scheme standpipe
- Funding for innovative solutions for our strategic community supplies

#### Health

- Provide access to ongoing mental health support (during and post droughts) and wellbeing activities. Support activities to extend beyond the farmer and recognise the impacts of family stress on children.
- Support volunteers and ensure appropriate access to training and skills. Include training in mental health first aid.
- Communities need to be adequately supported to avoid burnout. Identify where government can intervene to alleviate burnout and stress (not contribute to it).
- Increase the normalcy of mental health support so that there is someone people can talk to, for example include regional men's health at all events (not just drought events).
- Regional doctors trained in mental health.

#### Support the local economy

- Economic diversification
- Business attraction to regional towns
- Private co-ops support communities
- Tourism opportunities

#### Knowledge, innovation, and extension

- Invest now – preparedness and early messaging to ensure that communities and business are prepared for drought.
- Develop an annual drought notice that includes water resources, other support services, and how to access. Notice to be sent out by local government with the rates notices.
- All agencies maintaining their websites with contact details.
- Preparedness - do the work before the drought so that people/groups/volunteers are not overwhelmed.

- Local governments and local landcare groups updated on drought assistance, what's available and where to go for support/additional information. They are often the first port of call for land managers.
- Develop and maintain a drought information hub (website) to collate and provide information and resources for drought. This could include management resources, contact details, forecast information. Ensure there is clear and defined responsibility for management/updating.

#### Collaboration and building capability

- Resilience is about attitude adoption and cultures. Ensure that communications are worded in a supporting manner, not negative.
- Build in capacity for extra resources that are needed in local communities during difficult times.
- Provide opportunities for catchment groups, especially during drought and post drought recovery. As they are currently project focussed, there is no available capacity to enable this without substantial workload increases and stress.

#### Supporting policy and planning needs

- Update water strategies for LGAs
- Assessing and addressing bushfire risk in all developments.
- Ensure the impact on infrastructure from drought is considered (e.g. waste water treatment).

# RESOURCES & REFERENCES

There are a range of resources that will be useful in future planning for drought. Titles and links to these documents are included below.

## SOUTH COAST MACRO CORRIDOR REPORT

Available for download here: <https://southcoastnrm.com.au/wp-content/uploads/2022/05/WA-MacroCorridorReport-Full-WEB.pdf>

This report identifies critical areas for revegetation to promote landscape scale connectivity.

## THREATENED SPECIES AND ECOLOGICAL COMMUNITIES REGIONAL STRATEGIC MANAGEMENT PLAN

Available for download here: <https://southcoastnrm.com.au/wp-content/uploads/2022/05/Threatened-Species-Ecological-Communities-Regional-Strategic-Management-Plan.pdf>

This plan identifies actions required to protect threatened species, including identifying the impact of climate change on these species and communities.

## IDENTIFICATION AND CONSERVATION OF FIRE SENSITIVE ECOSYSTEMS AND SPECIES OF THE SOUTH COAST NRM REGION

Available for download here: <https://southcoastnrm.com.au/wp-content/uploads/2022/05/Threatened-Species-Ecological-Communities-Regional-Strategic-Management-Plan.pdf>

## GLOSSARY

FBG Fitzgerald Biosphere Group

EDE Future Drought Fund

GSDC Great Southern Development Commission

NRM Natural Resource Management

NSPNR North Stirlings Pallinup Natural Resources

RDRP Regional Drought Resilience Plan



# APPENDIX

## Appendix 1. Grower Group questionnaire



### Regional Drought Resilience Planning - Grower Groups

South Coast NRM are running a consultation process for the Great Southern Development Commission to inform the Regional Drought Resilience Plan for the Great Southern region.

These plans are funded by the Future Drought Fund, which is a long-term investment fund that provides a sustainable source of funding to help Australian farmers and communities become more prepared and resilient to the impacts of drought. Commencing in 2020-21, \$100 million will be invested annually in projects across Australia.

The plan will identify priority actions that will underpin communities' applications for funding to help them prepare for, and respond to, drought. The Plan will focus on innovative ways to build regional drought resilience across the agricultural sector and supporting industries, through a collaborative and evidence-based approach.

Plans are due for completion in June 2022.

Phase one of the project includes a drought vulnerability assessment to gain an understanding of each LGA's/Regional group susceptibility to drought. This aspect of the project will include the development of region-specific agreed definition of drought resilience, identifying and mapping out historical incidence, severity and impacts of drought in the regions, and determining the likely physical, economic and social impacts of drought in the future.

Phase two of the project is the development of the Regional Drought Resilience Plan which includes local priorities and actions as identified by Local Governments, community groups, farmers, and allied industries. The final plan will be supported by an investment framework and business case studies to help target future funding.

Do you accept that your responses will be credited to your organisation and not remain anonymous.

1. What do you see as the biggest impacts of drought?

2. What priorities and/or actions do you feel will help increase drought resilience in the region?

3. Name of Grower Group



4. Do you have any other comments, questions, or concerns?

5. Do you have a recommendation for an appropriate agronomist that could participate in the Drought Resilience survey

## Appendix 2. Farmer champion questionnaire



### Regional Drought Resilience Planning Program Survey

#### Introduction

The Australian government's [Future Drought Fund](#) (FDF) provides \$100 million a year through several different programs aimed at helping Australian farmers and communities become more prepared for, and resilient to, the impacts of drought. One of these programs, the [Regional Drought Resilience Planning Program](#), focuses on developing regional drought resilience plans that identify actions that will build resilience to drought in agriculture and allied industries.

South Coast NRM are working with the Great Southern Development Commission to provide community input to a Regional Drought Resilience Plan (RDRP) under the FDF. Developing an RDRP is an opportunity for farmers, agribusiness and community groups to identify their priorities for drought resilience and put forward project ideas for further development and, ideally, funding under the wider FDF programs. This interview is one opportunity for you to participate in the process.

If you have any questions about this survey, please contact South Coast NRM on 08 9845 8537 or [info@southcoastnrm.com.au](mailto:info@southcoastnrm.com.au)

Any information you provide will be reported anonymously, any personal details will only be for future internal reference for opportunities that may arise with South Coast NRM

1. Date

Name

Shire

Farm District

2. How many hectares of land do you own/manage?

3. Years in the region

- <3 years
- 3-10 years
- 11-20 years
- >20 years

4. What is your enterprise mix? Approximately what percentage of landuse/product?

% Crop	<input type="text"/>
% Beef	<input type="text"/>
% Sheep	<input type="text"/>
Other	<input type="text"/>

5. How would you define the difference between a drought and a 'dry season'?

6. Have you ever been through a drought? If so, when?

7. Are there any any tools or information you use to plan for drought?

8. What do you see as the biggest impacts of drought on you, your family, and your business

9. What do you see as the biggest impacts of drought on your community? This could be impacts to businesses, community groups, natural resources and environment (water, soil, vegetation)?

10. What have you done to minimise drought?

11. What strategies in your community or region in response to drought and how do you feel about their success?

12. What priorities and/or actions do you feel will help increase drought resilience in the region?

13. What could the government do to support the community and farmers to prepare for future droughts?

14. What is your age demographic?

- <25
- 25-40
- 41-65
- >65

### Appendix 3. Agronomist questionnaire



#### Regional Drought Resilience Planning - Agronomists

South Coast NRM are running a consultation process for the Great Southern Development Commission to inform the Regional Drought Resilience Plan for the Great Southern region.

These plans are funded by the Future Drought Fund, which is a long-term investment fund that provides a sustainable source of funding to help Australian farmers and communities become more prepared and resilient to the impacts of drought. Commencing in 2020-21, \$100 million will be invested annually in projects across Australia.

The plan will identify priority actions that will underpin communities' applications for funding to help them prepare for, and respond to, drought. The Plan will focus on innovative ways to build regional drought resilience across the agricultural sector and supporting industries, through a collaborative and evidence-based approach.

Plans are due for completion in June 2022.

Phase one of the project includes a drought vulnerability assessment to gain an understanding of each LGA's/Regional group susceptibility to drought. This aspect of the project will include the development of region-specific agreed definition of drought resilience, identifying and mapping out historical incidence, severity and impacts of drought in the regions, and determining the likely physical, economic and social impacts of drought in the future.

Phase two of the project is the development of the Regional Drought Resilience Plan which includes local priorities and actions as identified by Local Governments, community groups, farmers, and allied industries. The final plan will be supported by an investment framework and business case studies to help target future funding.

Do you accept that your name will remain anonymous however your responses will be credited to your organisation?

1. What do you see as the biggest impacts of drought?
2. What priorities and/or actions do you feel will help increase drought resilience in the region?
3. What do you consider as an example of successful on-farm strategies, their point of difference and why?
4. Do you have any other comments, questions, or concerns?
5. Name of Agronomist, Organisation and date of interview

DONE

## Appendix 4. Reference Group Membership

### Healthy Environments

#### Members and attendees at the meeting on the 24th of February were:

Nathan McQuoid – Landscape Ecologist

Sarah Comer – Regional Ecologist with the Department of Biodiversity, Conservation and Attractions.

Angela Saunders – Ecologist with Bush Heritage Australia.

Yvette Caruso – Sustainability Coordinator with the Shire of Denmark

Vicki Winfield

Paul Wettin – Chairperson with The Western Ground Parrot Committee

Sayah Drummond – Communication Officer with the Oyster Harbour Catchment Committee

Mike Wysong – Healthy Environments Program Manager with South Coast NRM

Natalie Reeves = Project Officer with South Coast NRM

Sandra Gilfillan – Black Cockatoo Project Officer with South Coast NRM

Kylie Fletcher – Land and Water Program Manager with South Coast NRM

Johanna Tomlinson – Chief Operating Officer with South Coast NRM

### Aboriginal

#### Members and attendees at the meeting on the 17th of March were:

Lester Coyne: (Chair) Community member, Albany Heritage Reference Group Aboriginal Corporation

Ron Grey: (Vice Chair) Community member

Alison Lullfitz: Community member, UWA researcher (Teams)

Ezzard Flowers: Community member, Wirlomin Noongar Language and Stories Project (Teams)

Shawn Colbung: Community member

Robbie Minter: Community member, Gnowangerup Aboriginal Corporation (Teams)

Johanna Tomlinson: Chief Operations Officer

Karl Hansom, Restoring Lake Pleasant View Project Officer

Peter Twigg: Cultural Heritage Project Officer (Via Teams)

Kylie Fletcher: Land and Water Program Manager

Natalie Reeves: Project Officer

## Land and Water

### Members and attendees at the meeting on the 24th of March were:

Letisha Newman (South Coast NRM),

Deon Utber (DBCA),

Steve Janicke (Community),

Johanna Tomlinson (South Coast NRM),

Sue Mills (Water Corporation),

Nicolie Sykora (DWER),

Mal Parker (PF Olsen)

Natalie Reeves

Ian King (Chair),

Kylie Fletcher (South Coast NRM),

Heather Adams (OHCG),

Tim Overheu (DPIRD),

Sophie Willsher (South Coast NRM)



# Appendix 7. Social media promotion of the community workshop

**FUTURE DROUGHT FUND**  
**Regional Drought Resilience Plans**

**Great Southern Community Forum**  
Monday 2 May 2022  
1.00 - 3.00pm

Join us online or at your local CRC for a Drought Vulnerability Assessment update for the Great Southern, where we will present key project ideas and priorities to help increase drought resilience.

**Why develop a Drought Resilience Plan** | GSDC and South Coast NRM  
**What defines drought in the Great Southern** | DPRE  
**Drought Vulnerability Assessment** | GSDC  
**Projects to improve resilience** | Participants  
Q & A

visit <https://www.trybooking.com/BYXFM> to book or scan the qr

Contact Kylie Patcher at [kylie@southcoastnrm.com](mailto:kylie@southcoastnrm.com) or 9076 2200 for more info.  
Resilient Community Systems through the Victorian Government's Future Drought Fund and WFA  
Local Need and Local Solutions and Regional Development

SOUTH COAST GREAT SOUTHERN DEPARTMENT OF REGIONAL AND REMOTE DEVELOPMENT

South Coast Natural Resource Management Inc.  
27 April at 10:27

South Coast Natural Resource Management Inc. invites you to attend a drought planning workshop online on Monday, 2nd May (between 1 - 3pm). This workshop is a great opportunity to help shape a drought resilience plan for the Great Southern Region.

The plan will identify the projects and needs for our region that are essential to underpin our collective resilience to drought. This is your chance to have a say and help shape our regional response to drought.

Register for the event by visiting: <https://www.trybooking.com/BYXFM> or by scanning the QR code.

This project is being managed by the Great Southern Development Commission through funding from Australian Department of Agriculture, Water and the Environment Future Drought Fund. The workshop will be delivered by South Coast NRM.

Can't attend the workshop but are still interested in providing feedback? Check out the online survey: [www.surveymonkey.com/r/droughtresilience](https://www.surveymonkey.com/r/droughtresilience)

#drought #resilience #planning #futuredroughtfund #southcoast #southcoastnrm See less

You and 3 others · 3 shares

Like Comment Share

Write a comment...

## Appendix 8. Workshop Invite

**From:** [Kylie Fletcher](#)  
**To:** [Kylie Fletcher](#)  
**Cc:** [Kaylene Parker](#)  
**Subject:** Drought resilience planning - consultation workshop 2nd May 1 to 3pm  
**Date:** Thursday, 28 April 2022 4:09:33 PM  
**Attachments:** [FutureDroughtFund\\_FactSheet\\_GreatSouthern\\_v4.pdf](#)  
[FutureDroughtFund\\_FAQ\\_GreatSouthern\\_v4.pdf](#)  
[Community Drought Workshop.png](#)  
**Importance:** High

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Dear all,

As part of developing a regional drought resilience plan for the inland part of the Great Southern region, we're holding an online community workshop. This workshop will be a fantastic opportunity to provide input into what's required for the region, as the plan will develop a roadmap of actions to prepare for future droughts.

Here's your chance to find out more about the project and have your say on what's needed to ensure resilience to future droughts!

**Date:** 2 May

**Time:** 1-3 00pm

**On-Line through Zoom – register here:** <https://www.trybooking.com/BYXEM>

You will hear from:

**Kaylene Parker** (GSDC and **Kylie Fletcher** South Coast NRM): Emerging priorities from stakeholder engagement

**Meredith Guthrie** (DPIRD): defining drought in WA – annual rainfall vs. seasonal rainfall: drought, severe drought and the emerging threat of hot drought.

**John Bruce** (DPIRD): regional drought risk and resilience priority areas map incorporating ~50 data sets.

Attached are a fact sheet and a FAQ about the project, along with the workshop flyer.

If you are interested in providing input into drought priorities but are unable to attend the meeting, there is an online survey that is currently open where you can provide input. You can find this at: <https://www.surveymonkey.com/r/droughtresilience?fbclid=IwAR1xHKu8w6Diu6XFehn6Hy4RQuVpg-sVoTx4oo8E58KpNqkTCPAMQIUJ16VI>

Please forward this invite on to anyone you think might be interested in attending.

We look forward to seeing you online on the 2<sup>nd</sup> of May.

Regards,

Kylie

**Kylie Fletcher**

Land and Water Program Manager





# FUTURE DROUGHT FUND

## Regional Drought Resilience Plans

### Great Southern Community Forum

Monday 2 May 2022

1.00 – 3.00pm

Join us online or at your local CRC for a Drought Vulnerability Assessment update for the Great Southern, where we will present key project ideas and priorities to help increase drought resilience.

<b>Why develop a Drought Resilience Plan</b>	GSDC and South Coast NRM
<b>What defines drought in the Great Southern</b>	DPIRD
<b>Drought Vulnerability Assessment</b>	GSDC
<b>Projects to improve resilience</b>	Participants
<b>Q &amp; A</b>	

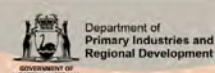


scan the qr

visit <https://www.trybooking.com/BYXFM> to book or

Contact Kylie Fletcher at [kylief@southcoastnrm.com](mailto:kylief@southcoastnrm.com) or 9076 2200 for more info

*This project is jointly funded through the Australian Government's Future Drought Fund and WA's Department of Primary Industries and Regional Development.*



## Appendix 10. Community workshop agenda



Department of  
**Primary Industries and  
Regional Development**

### **Future Drought Fund – Regional Drought Resilience Plans**

Great Southern Community Forum: Drought Vulnerability Assessment Update, Consultation Update and Project Review

Date: Monday 2nd May 2022

Time: 1pm to 3pm

Venue: Online <https://us02web.zoom.us/j/89234109967>

Meeting ID: 892 3410 9967; Passcode: 583847

Attendees: Project Advisory Group members, local government Councillors, those stakeholders targeted for consultation including general community.

Workshop aims:

Present the Drought Vulnerability Assessment for the Great Southern, review the vulnerability and adaptive capacity maps & drought definition.

Presentation on preliminary consultation findings to date, feedback on any major gaps.



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Development

Item	Time	Duration	Topic	Presenter
PRE-EVENT				
	11 April		Contact list collated and invitations to be sent out	South Coast NRM
	20 April		Pre-reading – project overview, drought vulnerability assessment framework, draft summary of consultation	SCNRM option to host information through Southern Soils website
ON THE DAY				
	12:45	15	Technology test	Andrew
	15:00	7	Workshop open. Acknowledgment of Country & overview, outcomes of the <u>workshop</u> ;	Andrew
	15:07	15	Why develop a Drought Resilience Plan? Project overview	Jarrad Gardner (GSDC)/ Kaylene Parker Karen Barlow (DPIRD)
	15:20	20	What defines a drought in the Great Southern? 15 min presentation with 5 mins for questions/comments	Meredith Guthrie (DPIRD)
	15:40	20	Drought vulnerability assessment framework and mapping results 15 min presentation with 5 mins for questions/comments	Kaylene Parker to introduce concept and John. John Bruce (DPIRD)
6	14:00	5	Overview of consultation and themes so far	Kylie Fletcher (South Coast NRM)
7.	14:05	40	Projects to improve resilience - input from attendees  Input to be collected around the following 5 key areas:  Social, environmental, economic	Andrew
8.	14:45	15	Will Besson's infographic - introduce and present.  Q&A, next steps, close  Next steps – projects to be compiled, technical expertise. Feedback to the community on the projects. Opportunity to review the draft plan when its released  Survey - open to the end of the week if you leave today's workshop and find other things you want to contribute.	Andrew
9.	15:00		Meeting close	Andrew
POST-EVENT				
	15 May		Follow up participants with workshop outcomes	South Coast NRM

# Appendix 11. GroupMap results from the Community Workshop

Social Resilience	Environmental Resilience	Economic Resilience
ongoing consultation	understanding future environmental priorities in an agricultural landscape	Ag consultants - reports to tell us how we are going
opportunity for younger individuals to contribute to future for the region.	Increasing carbon and microbes in soil, increasing soil resilience - (i) help the soil act as a sponge	Defining rainfall - planning infrastructure
Prepare early! Once it's happening - it's too late	Environmental flows - what remains in the landscape which adds to soil moisture, access as well as manage better and work to improve it - how many and quality of dams in the landscape. Current project by Nick? but doesn't include quality (Tim D)	Grants for maintaining catchments
Localised mental health training - if going to a dry very late in the game. Train community people, frontline workers	Increase trees and diversity across the landscape	Fire fighting water - needs
Local leader/facilitator/connector of the community (not necessarily someone from the shire), leadership in rural towns. A person in every town who is able to facilitate attendance at different events. Needs to be well thought out - community member who is proactive and well connected.	monitor and maintain (or create) abundance and distribution of freshwater habitat	Ag Technology role is playing in drought
Encourage connection between generation - including older and younger farmers	measure salinity and include on maps	How well are farm management deposits used, did it help/work?
Drought resistant native vegetation in the landscape - so that something still remains green and healthy throughout	evaluate landscape for economic profitability, change landuse if not profitable	Support for on-farm water harvesting innovation
All agencies maintaining their websites with contact details - can be a nightmare to find someone to actually talk to. information can be quite old.	evaluation of indicators of change (weeds...)	Smart farm technology
Increase the normalcy of mental health support people so that they're someone people can talk to. E.g. include regional mental health at all events (not just drought events)	bringing back the small water cycle - ecosystems approach	funding assistance to help find water resources on farm
Catchment groups - pop up person. Currently project focussed.	revegetation (not clearing) to manage the water flow	Impact of drought - improve how we measure this (land report)
Being able to pick things up on the social side early on - network of people to connect to. E.g. bank managers, contractors, agronomists, etc. Can give generalised information that might give an early signal	more detail - linkage between surface and ground water	Competition for water resources ie mining
Tap into the little moments events (respond to community need rather than top down approach)	Soil moisture (characterisation)	Desalination
Keep in mind the longer term - not just short term. Access to support throughout the longer term.	Rehydrate landscapes	GS
Reducing confusion of what's out there	Soil health (erosion, soil cover)	Mental health support
Preparedness - do the work before the drought so that people/groups/volunteers are not overwhelmed. Building relationships.	Regenerative agriculture	Viability of communities/schools
Linking up community network a bit more - assistance prior to drought so they know what's there before drought arrives	Perennials and native grasses	Tipping points for agriculture, ie. crop one year in six, then may see further communities
What are the community events out there already - not adding to the load	Catchment hydrology - rehydrate landscapes	Decision makers - catchment groups play a greater role
Regional doctors trained in mental health		Scheme pipeline ends Gnowangerup - need to capture on farm water when no other option.
LGA's updated on drought assistance, first port of call		Drought criteria
Water supplies for school ovals/town ovals and recreational facilities		Preparedness?
Community events		Water efficiency disasters - needs reviewing
Opportunities for on-country projects		Farming system - managing for drought
Maintaining green spaces in towns during drought events		How to overcome hand out versus planning
		Farm planning/training
		Challenge in farmers are quite private
		Risk of drought - off farm escapes are massive
		Impact of drought on tourism - risk assessment
		Mining - risks for communities
		Diversification - what else is impacted by drought along the supply chain
		Farm management deposit scheme
		On-farm innovation (no till, low input farming, cropping, technology)
		Farm business planning
		Value add to existing commodities