



SOUTHERN NSW
Innovation Hub

SUSTAINABLE AGRICULTURE,
LANDSCAPES AND COMMUNITIES

IMPACT REPORT

Southern NSW
Drought Resilience Adoption
and Innovation Hub



2021-2024



Executive summary



This report provides an overview of the Southern NSW Drought Resilience Adoption and Innovation Hub's (Southern NSW Innovation Hub) impact on its communities and region, from inception in June 2021 up to December 2024. Southern NSW Innovation Hub is one of eight funded by the Australian Government's Future Drought Fund.

The Southern NSW Innovation Hub Impact Report 2024 is an opportunity to reflect on its achievements, three years after establishment, and the work done to provide farmers and communities across southern NSW with valuable knowledge, tools and practices to enhance drought preparedness and resilience to create sustainable agriculture, landscapes and communities.

With a focus on collaboration and connection, Southern NSW Innovation Hub, working closely with partner organisations and its broader network, is an effective enabler of better support, greater adoption of initiatives and tools, and improved outcomes for the farms and communities in its region.

This report captures the impact of the Southern NSW Innovation Hub and aligns with the strategic and activity planning the Hub has undertaken since inception.

Southern NSW Innovation Hub's impact has been captured according to the five areas of activity that the Hub has focused on:



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Since 2021, the Southern NSW Innovation Hub has established a strong operating model and built a team capable of executing that model. With a focus on collaboration and innovation, Southern NSW Innovation Hub has demonstrated outcomes across key projects which are improving the drought resilience capacity of people and communities in southern NSW.

One of the most important things for Australian agriculture, across many generations, has been innovation and knowledge sharing. It's an important distinction that the Hub is for both drought resilience adoption AND innovation. What will actually help Australia prepare for the inevitability of drought and climate variability is genuine collaboration and innovation.

While there is more work to be done, Southern NSW Innovation Hub has achieved this to date through effective and structured collaboration with partners that prioritises supporting the region while minimising overlap and maximising reach. We will continue to focus on our objectives of both delivering projects that positively impact southern NSW and giving people access to the skills and information they need for drought resilience.

As I reflect on the achievements of Southern NSW Innovation Hub it is important to recognise the short time frame available and the enormous effort required to bring these outcomes into effect. Drought has been and remains a permanent feature of Australian agriculture. Creating more resilient farms, communities and landscapes requires the long-term thinking and action - a strategic, transformative mindset typified by the Southern NSW Innovation Hub.

I would like to acknowledge and thank the other Hub Board members for their vital contribution to effective governance and guiding the strategic direction of Southern NSW Innovation Hub. We have a diverse knowledge base across the group and that has led to more effective and collaborative decision-making that drives real-world impact for the region. It has also been an honour to watch the Southern NSW Innovation Hub team, led by Director Cindy Cassidy, grow and develop over the past three years, becoming more ambitious in what they want to achieve for our communities and industries.

Barry Irvin AM | Chair
Southern NSW Innovation Hub



The role of the Southern NSW Innovation Hub is to enable people to connect with the tools, technologies and knowledge needed for them to implement practice and systems changes that make the agriculture, landscapes and communities of southern NSW more resilient to the impacts of drought and climate change.

Southern NSW Innovation Hub supports collaboration, leverages expertise and investment, and drives action in social, economic and environmental priority areas. By focusing our joint efforts and resources on priority areas to manage climate variability, Southern NSW Innovation Hub is putting drought resilience at the forefront of our region's future.

Southern NSW Innovation Hub does this by:

Collating and creating insights to support the development of drought and climate resilience

- Collating and curating existing knowledge and tools
- Creating new insights around the social and environmental impacts of drought and levels and drivers of resilience at community and farm level
- Identifying priority areas for action to support local and regional drought resilience

Building capability of extension personnel and organisations

- Designing and embedding bespoke methods and approaches for values-based engagement and people-centred design
- Designing and embedding modern approaches to extension that curate and target information and are based on social science and adult learning theory
- Providing training and learning activities to support extension, engagement and project design skill development

Creating capacity and collaboration across the region

- Working through and with partners, collaborators and other stakeholders to deliver farmer and community facing activities
- Using co-design and values-based engagement to create collaborative projects and leverage existing skills and investment
- Working across the national Drought Resilience Adoptions and Innovation Hub network to share insights and knowledge and create collaborative co-invested projects.

Leveraging investment

- Using core Hub capacity to develop high quality co-designed collaborative projects and programs with people and organisations trusted by farmers and/or communities that attract new investment in high priority areas for drought and climate resilience in southern NSW.

BACKGROUND

Southern NSW Innovation Hub was established in June 2021 at Charles Sturt University with its seven partners in an unincorporated Joint Venture. It is one of eight Drought Resilience Adoption and Innovation Hubs across the country that receive funding from the Australian Government's Future Drought Fund.

Southern NSW Innovation Hub partners include industry and community groups, researchers, education institutions, resource management practitioners and state government agencies.

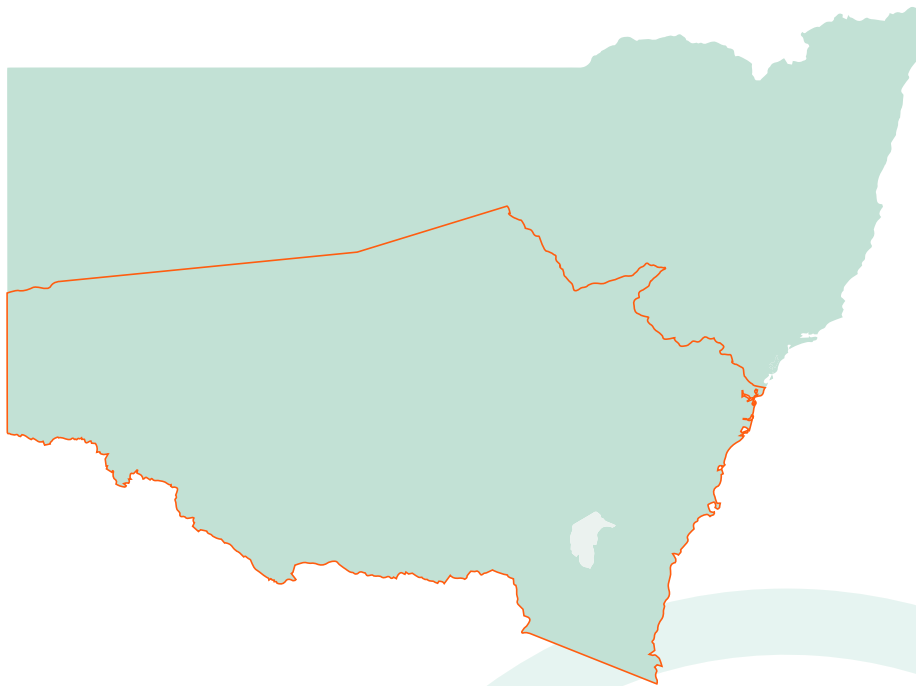
- Charles Sturt University (Hub lead)
- Farming Systems Groups Alliance, including:
 - FarmLink Research
 - Central West Farming Systems
 - Holbrook Landcare Network
 - Irrigation Farmers Network
 - Irrigation Research and Extension Committee
 - Monaro Farming Systems
 - Riverine Plains
 - Southern Growers
 - Tablelands Farming Systems
- Australian National University
- NSW Local Land Services
- NSW Department of Primary Industries and Regional Development
- Rural Aid
- University of Canberra

Southern NSW Innovation Hub is hosted by Charles Sturt University at its Wagga Wagga campus. Charles Sturt provides Southern NSW Innovation Hub with institutional support and access to extensive resources, research, educational networks and facilities.

ABOUT SOUTHERN NSW

Agricultural, horticultural and forestry production in southern NSW is conservatively valued at over \$7 billion per year.

Southern NSW Innovation Hub operates within a region that encompasses the Macquarie River catchment, including its upper reaches, irrigation areas, and lower Darling River areas. It extends to the Hunter catchment's western and southern edges, near the Sydney Catchment and Hawkesbury River mouth. The southern and western boundaries align with the Victorian and South Australian borders.



The region's farming systems encompass all the major agricultural sectors – aquaculture, wine, dairy, grain, cotton, livestock, horticulture, forestry and many emerging industries – and cover diverse geographical features and climatic variations, intensive and extensive systems, and dryland and irrigated production.

Key agricultural industries in southern NSW include:

- Livestock (predominately cattle, sheep and goats)
- Broadacre cropping (predominately cereals, oilseeds, cotton, pulses, rice)
- Dairy
- Fruit and nuts (predominately citrus, stone fruits, apples, almonds)
- Vegetables
- Grapes (both wine and table grapes)
- Pork
- Poultry
- Oysters

¹ NSW Department of Primary Industries Performance, Data and Insights report 2022:
<https://www.dpi.nsw.gov.au/about-us/publications/pdi/2022/regional-output>

PRIORITIES: KEY IMPACT AREAS

Working with key stakeholders from across the region, using a process of [co-design](#) and [Investment Planning for Impact](#), Southern NSW Innovation Hub identified six key impact areas with drought and climate resilience opportunities to be addressed.

Enhancing and preserving the natural environment

Advancing efforts to ensure sustainable, drought resilient ecosystems

Resilient production systems and decisions

Optimising land productivity and sustainability while promoting effective farm decision-making

Social and cultural resilience: First Nations

Fostering the cultural, economic and social wellbeing of Aboriginal people in the face of climate change

Social and cultural resilience: Rural communities

Fostering economic and social wellbeing in both rural and regional communities

Soil health

Prioritising soil health and fertility to enhance agricultural productivity and environmental sustainability

Water and water use

Promoting responsible water resource management for a sustainable water supply and ecosystem health



ECONOMIC IMPACT

Southern NSW Innovation Hub has grown significantly from the initial cash investment of \$8 million from the Australian Government's Future Drought Fund and \$900,000 from partners. This was combined with \$10.9 million of in-kind contributions to drive outcomes for southern NSW.

Over almost three years in operation to the end of 2024, investment in Southern NSW Innovation Hub has grown to a cumulative \$33.8 million in cash and \$24.3 million in in-kind co-contributions. This includes investment in 13 on-ground projects worth \$19.1 million in cash and \$12.8 million in in-kind.

INVESTMENT GROWTH



A REMPLAN analysis, using area-specific data, was conducted for Southern NSW Innovation Hub in 2023 and found that the flow-on effect of these investments could lead to an additional \$127.5 million of economic output across the southern NSW region. Corresponding to this were increases in employment including 103 jobs and \$24.1 million in wages and salaries, and \$50.3 million in value-added economic activity in 2023.

ACHIEVEMENTS & HIGHLIGHTS

In 2024, Southern NSW Innovation Hub launched the hugely successful [Early Insights for More Resilient Communities Dashboard](#) which allows regional NSW communities to visualise their social, environment and economic resilience. The online dashboard is now set to expand to a national footprint with co-investment from six other Drought Resilience Adoption and Innovation Hubs.

Southern NSW Innovation Hub was named a winner at the Department of Agriculture, Fisheries and Forestry's 2024 Australian Biosecurity Awards for its unique project with the potential to enhance biosecurity management systems and strategies across the country – [Managing Biosecurity Risks](#). The award win, in the community category, is a testament to the Hub's ability to bring partners together and identify and develop truly impactful projects that enhance drought resilience and agricultural innovation. The Managing Biosecurity Risks project involved collaboration with the community, high-value industry representatives and producers in southern NSW to find ways to increase the speed of tracking possible vectors to reduce, halt or eradicate biosecurity threats.

First Nations engagement took place across 2023 and 2024 with a focus on networking and consultations to develop Southern NSW Innovation Hub's connections with Aboriginal organisations across the region. Led by the Hub's First Nations Engagement Officer, these activities involved at least 200 participants across 20 different First Nations organisations and groups. The First Nations Engagement Officer also provided extensive cultural competency training to the Hub team and its network, including to all the Knowledge Brokers.

In particular, supporting the Brungle Tumut First Nations community to establish a unique cultural garden, through engagement and partnerships with local groups and individuals, based on listening, respect and shared purpose was a highlight for Southern NSW Innovation Hub.

Southern NSW Innovation Hub is revolutionising the collective approach to project development through its unique four-stage [Investment Planning for Impact](#) process and have had over 150 people participate in the process in 2024. This included collaborative design and development with key partner organisations of three project proposals for the Future Drought Fund's Resilient Landscapes and Long-term Field Trials grant programs submitted for consideration in November 2024:

- Long-term Field Trials: Transforming Viticulture for Future Drought and Climate Resilience
- Healthy Landscapes, Healthy Farms: Enhancing Natural Capital to Build Drought Resilience in the NSW Sheep-Wheat Belt
- Growing Confident Decisions: Engaging Landholders with a Targets and Tailored Approach to Build Confidence in Stock and Grazing Decision-making that Supports Drought Resilience and Enhanced Landscape Outcomes

Most importantly, Southern NSW Innovation Hub is focused on the communities and farmers in the region to be more drought and climate resilient through transformative projects that include:

- Making [soil science accessible to land managers and farmers](#) in southern NSW by hosting Regional Soils Coordinators as part of a \$6.26 million commitment from the Natural Heritage Trust's Climate-Smart Agriculture Program.
- Establishing the four-year \$6.2 million [Drought Resilient Mixed Farming System Trials project](#) at Charles Sturt University and seven sites across southern NSW.
- Delivering the \$3.8 million GRDC [RiskWi\\$e program](#) over the whole of NSW, which includes 12 demonstration sites and 10 partner organisations.
- \$1.5 million to help farmers reduce the impact of drought by implementing [farm water management plans](#).
- \$1 million for [Drought Adoption Officers](#), in partnership with Southern Queensland Northern NSW (SQNNSW) Hub and NSW Local Land Services, to provide guidance to landholders to boost their drought resilience.

To date, 35 Southern NSW Innovation Hub collaborator organisations have received project funding through Hub-managed programs.

IMPACT IN ACTION

Southern NSW Innovation Hub has developed a series of impact case studies that demonstrate specifically what the Hub is achieving and can achieve for southern NSW and beyond.

- [Using satellite technology to trigger on-farm decisions in NSW Rangeland](#)
- [Supporting graziers to save soils and maintain livestock](#)
- [Putting drought resilience into practice on-farm](#)
- [Making soil science accessible to enhance drought resilience](#)
- [Hub helps Little River Landcare tap into a broader network](#)
- [Mixed Farming Trials project starts from the front foot](#)
- [Visualising changing resilience in regional communities](#)
- [Communities learning from the past to prepare for the future](#)
- [Southern NSW Innovation Hub impact pathway and case studies](#)

Additional case studies will be developed as impact is identified and Southern NSW Innovation Hub will continue to build on the full suite of case studies available [online](#).



UNDERSTANDING THE STATE OF PLAY



Identifying the key issues and challenges facing southern NSW's communities and industries, and the opportunities for investment was the critical first step in building local climate resilience. It was important to understand the systems, capacities, networks, experiences, resources, and collective knowledge of the southern NSW region in order to deliver programs and projects that could improve long-term sustainability and effective drought resilience.

BASELINING DROUGHT

A key early activity for the Southern NSW Innovation Hub was developing a baseline understanding of farmers' and the community's perceptions of drought. The resulting Baseline Drought report established a shared understanding of what constituted drought across southern and central NSW and what it means for communities and producers in terms of assessing changes required, barriers to overcome and opportunities to improve drought resilience.

The report drew on a broad evidence base collected from 260 stakeholders and included information from:

- Group consultations, using either face-to-face meetings, remote conferencing or a combination of the two;
- Written submissions, guided by broad terms of reference; and a
- Short online survey.

Key findings included:

- People found it difficult to identify the key indicators of drought and cited everything from weather reports to scientific groundcover modelling and reduced discretionary spending in towns as indicative.
- For farm businesses, the impacts such as loss of income and production with increased expenditure was an expected hallmark of drought.
- Rural communities suffered during drought with economic downturn leading to some fraying of the vital social fabric and in some instances rallying together. For all communities the experience of drought had an erosive experience on overall resilience.
- For the Indigenous community of southern NSW, the impacts of the drought made it difficult to continue participating in the cultural practises that underpin their connection to land, and to nurture their cultural identity. Over time it was emotionally draining to many and led to distress and anxiety.
- Drought's impact on the local environment across southern NSW was identified by almost all the stakeholders as the most significant area for concern, but also the area that experiences the most rapid recovery following the drought.

The Baseline Drought report provided an economic, social and environmental lens that framed and shaped all of the engagement, adoption and commercialisation (EA&C) activities undertaken by Southern NSW Innovation Hub from 2022 onwards.



PREPARING WITH HINDSIGHT

The Preparing with Hindsight program run by Southern NSW Innovation Hub was a community engagement project that gathered insights from people across the southern NSW region about their real-world experiences of drought.

The first part of the Preparing with Hindsight program was a collection of case studies, prepared in partnership with the Farming Systems Group Alliance which collated the experiences of a range of landholders across the stages of pre-drought, in drought and drought recovery from the 2018/19 event.

The result was seven case studies about the unique experiences of different farmers across southern NSW.

- [Peter Sheppard - Coleambally](#)
- [Lachlan Bull - Deniliquin](#)
- [Ruth Klingner - Forbes](#)
- [Daniel Mathie - Holbrook](#)
- [Fiona & Craig Marshall - Mulwala](#)
- [Geoff & Tim Roberts - Pulletop](#)
- [Allan & Tanya Clarke - Tocumwal](#)

The second part of Preparing with Hindsight was a series of Hub-coordinated [community forums](#) held in 2024 in Condobolin, Deniliquin and Bega, which were a unique opportunity for communities to reflect on their experiences of drought - both bad and good - and simultaneously prepare for the future using the wisdom of the past.



PREPARING WITH HINDSIGHT cont.

Some of the most valuable insights gathered at the forums were recommendations for the actions that need to be taken now to prepare for future droughts and climate variability. These ranged from targeted agricultural extension to better small business planning, speeding up government responsiveness to drought, increasing coordination between agencies and departments, and more investment in community development.

By organising and facilitating the forums, Southern NSW Innovation Hub brought communities together on the topic of drought resilience, instigating new ideas, actions, and proactive preparedness for future climate variability.

The Preparing with Hindsight program showcased the reflections of farmers and communities about what it is like to live through drought and the insights gained from this research shaped how Southern NSW Innovation Hub has engaged with communities and the priorities that have been set to build community and industry resilience to drought and a changing climate.



2

DOING THINGS DIFFERENTLY



In order to overcome some of the central challenges facing Southern NSW Innovation Hub at the time of its establishment, a strategic approach was taken that focused on “doing things differently” in order to achieve impact for the region.

Central to this, and to Southern NSW Innovation Hub’s ongoing priorities and vision, is a commitment to collaboration and using the principle of people-centred design to leverage the diverse expertise of all stakeholders. Southern NSW Innovation Hub has successfully involved farmers, community members and First Nations groups in project design and development of initiatives, tapping into local knowledge and experience that often goes underutilised in research and development.

Three ways that this ethos has been brought to life for Southern NSW Innovation Hub and its network include its focus on co-design, the Expanded Horizons ideation program and establishing the unique Investment Planning for Impact process.

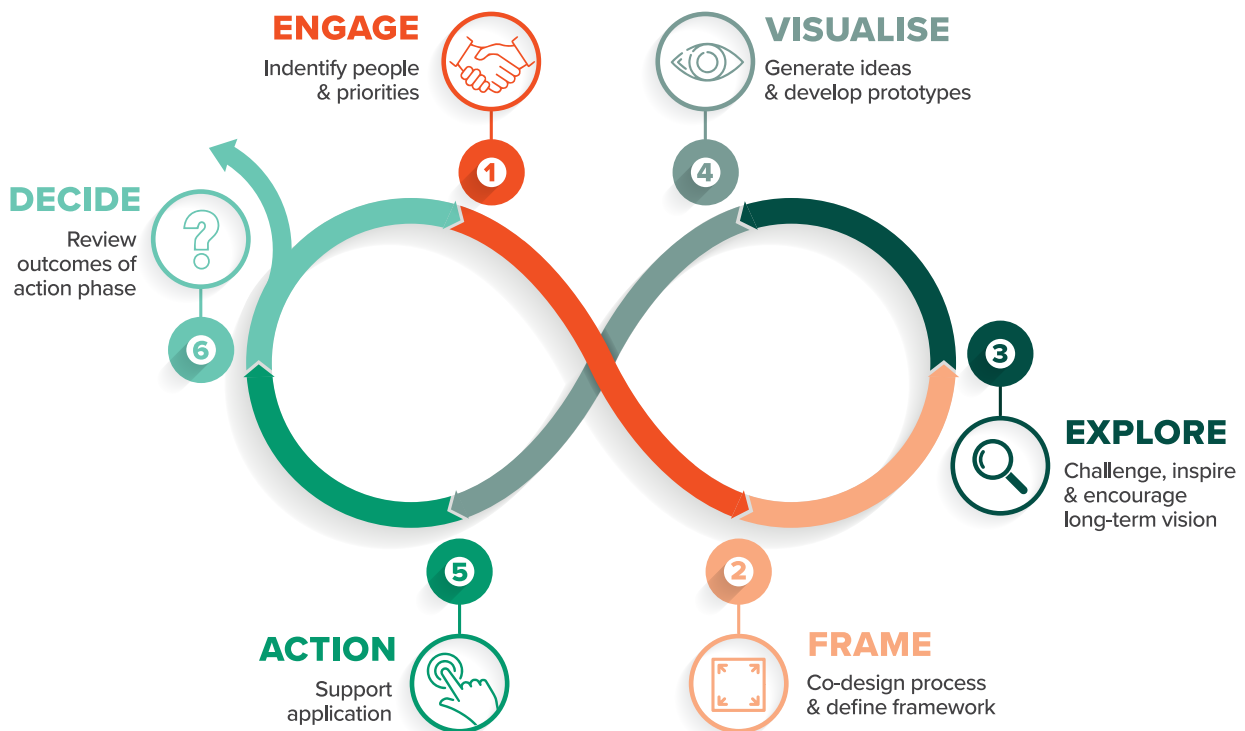
CO-DESIGN USING VALUES-BASED ENGAGEMENT

Co-design is a keystone for the fundamental changes that Southern NSW Innovation Hub is enabling across its communities – it is an approach to designing ‘with’ and not ‘for’ or ‘to’ people. By deploying people-centred co-design in its own work, and upskilling people and partners across the network, Southern NSW Innovation Hub has been able to better understand and leverage the role human values play in increasing engagement and facilitating practice change – driving the adoption of research, tools and technologies to enhance drought resilience.

Developed by Jo Eady and Dale Stringer, the Hub’s [co-design process](#) is a six-step model that provides a structured yet flexible framework for collaborative solution development. Jo is a human-centred facilitator and strategic designer with a keen interest in social change based in Victoria and Dale is an innovation specialist and chief knowledge broker with Southern NSW Innovation Hub.

The six-step model outlines a clear path for involving communities and stakeholders while allowing adaptation to specific topics, communities, and projects. This flexibility enables the team and stakeholders to customise tools, tactics, and processes to suit the unique requirements of different initiatives. It ensures that people-centred design remains a practical and adaptable approach for addressing various challenges.

CO-DESIGN USING VALUES-BASED ENGAGEMENT cont.



Southern NSW Innovation Hub has delivered several activities to increase awareness and understanding of the people-centred co-design model and develop the capabilities of staff and stakeholders:

- A people-centred co-design team was formed to integrate it into Southern NSW Innovation Hub's operations and targeted training was held to develop skills among staff and stakeholders.
- Expert-led webinars ([Expanded Horizons](#)) and online articles promoted innovation and resilience insights to stakeholders.
- Materials were developed to ensure the consistent application of people-centred co-design principles.
- People from across southern NSW were trained how to facilitate purposeful and participatory co-design activities with training provided at Knowledge Broker Network events, partner forums, and at the Southern NSW Innovation Hub's Advance NSW events in 2023 and 2024.

Using co-design principles and processes in Southern NSW Innovation Hub's own work and in collaboration with its network has led to identifying and supporting projects and activities in the southern NSW region that create more resilient agricultural systems, landscapes and communities. Now the Hub's network of partners use co-design in their own organisations to shape initiatives that meet the unique needs of their communities.

EXPANDED HORIZONS IDEATION PROGRAM

The Expanded Horizons ideation program was a series of [16 webinars](#) over 2022 and 2023 that exposed Southern NSW Innovation Hub partners and collaborators to novel thinking and new ideas from other sectors, industries and countries to stimulate new approaches to engagement, adoption and commercialisation (EA&C).

Some of the most inspirational and thought-provoking conversations of the [Expanded Horizons](#) series were those led by:

- Joshua Gilbert, Worimi man, farmer and academic, who shared the narration of Indigenous identity through agricultural truths in light of modern contexts
- PR experts Patrick McClelland and Laura Hill discussing how to engage with audiences that don't seem to care (even when they really should)
- Professor David Pannell examining how to design projects that change practice

Expanded Horizons webinars were an opportunity for the southern NSW innovation and agricultural ecosystem to think outside its industry, region and 'normal' to inspire what could be deployed for Southern NSW Innovation Hub-led projects and activities.

INVESTMENT PLANNING FOR IMPACT

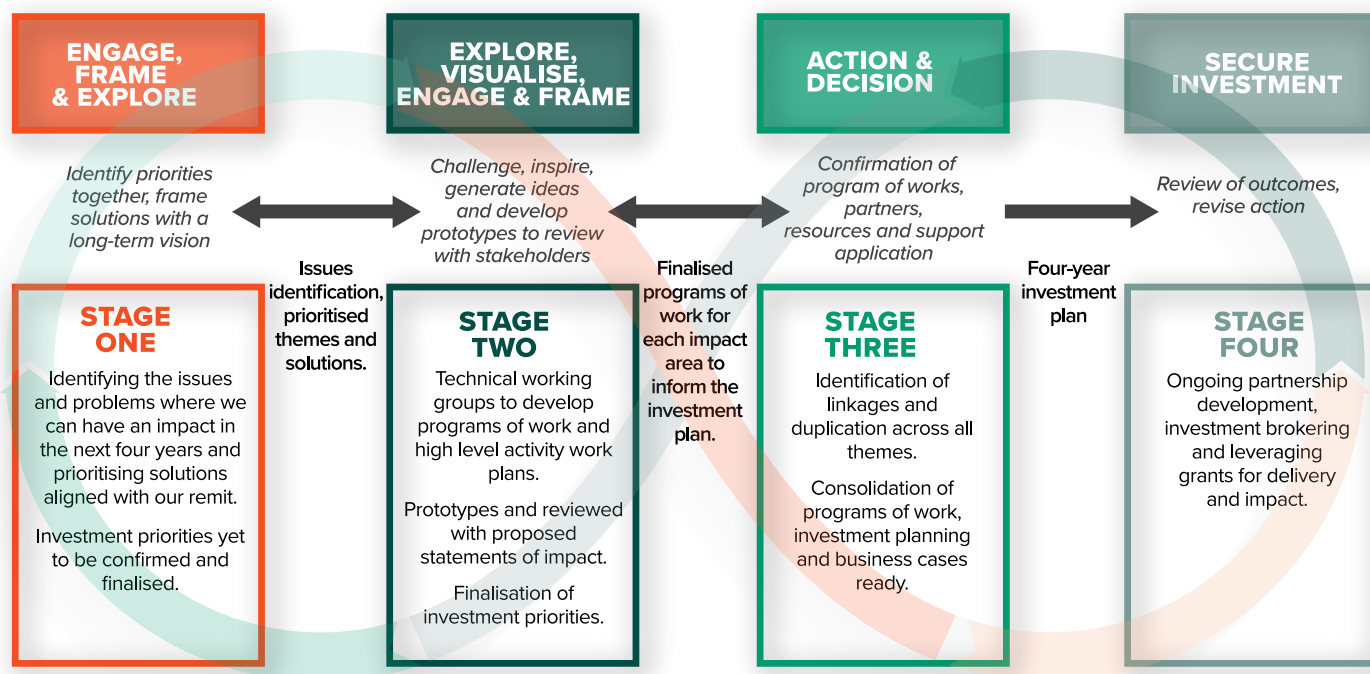
With the objective of delivering more projects and programs that meet the needs of southern NSW communities and farmers, and securing the funding to support that delivery, Southern NSW Innovation Hub implemented its unique four-stage [Investment Planning for Impact process in 2024](#).

Partner engagement in the Investment Planning for Impact process has been strong to date, with on average 32 external partner/stakeholder representatives attending each of the five foundational workshops. The process itself has also been highly regarded, with keen interest from other organisations seeking to embed it in their own planning processes.

This process is a framework for identifying and prioritising, in collaboration with Hub partners, stakeholders and network, the most important drought and climate resilience opportunities or issues for southern NSW region against Southern NSW Innovation Hub's six key impact areas.

- Social and Cultural Resilience – Rural Communities
- Social and Cultural Resilience – First Nations
- Enhancing and Preserving the Natural Environment
- Ground and Canopy Cover
- Soil Health
- Water and Water Use

INVESTMENT PLANNING FOR IMPACT cont.



Investment Planning for Impact started with Stage One co-design workshops held in May and June 2024 across the key impact areas. For each impact area, southern NSW stakeholders identified issues, opportunities, or problems affecting their region and mapped what success looked like, identifying what needs to be done in the next four years to move towards success.

The outputs of this process include stage one reports which then led to the development of the technical working groups and stage two workshops were held in October 2024 to scope projects and programs of work in alignment with the Future Drought Fund's latest grant program opportunities. This resulted in three Southern NSW Innovation Hub-led project proposals being submitted in November 2024 and our involvement in and support of several other applications.

Further stage three workshops and planning against the key impact areas will take place in 2025 to establish priorities, programs of work and business cases ready to be submitted for future funding opportunities.



3

PEOPLE & CAPABILITIES

Southern NSW Innovation Hub has invested in and focused on building the capacity of people across our region, including farmers, researchers, advisors, community leaders and more to drive improved drought resilience in southern NSW.

GOVERNANCE & LEADERSHIP

Southern NSW Innovation Hub is overseen by an advisory [Board](#) comprising its Director, members nominated from each of the Lead Partner organisations, and an independent Chair (appointed by Charles Sturt University). The Board oversees the strategic direction, financial management and operational effectiveness of the Hub. It ensures accountability, guides key decisions and supports stakeholder engagement. Board members provide the Hub with robust governance and astute strategic direction with the core objective of advancing the interests of communities and agricultural industries within southern NSW.

Southern NSW Innovation Hub is structured with seven lead partners from across the region, including government agencies, industry groups, community organisations, researchers and education institutions, has been critical to its success. Underpinning this is a Collaboration Agreement that defines governance roles and decision-making processes.

The structure of the Board and the details of the Collaboration Agreement is likely to evolve as Southern NSW Innovation Hub moves on from its establishment phase, but the legacy of collaboration and achieving more through effective partnerships will remain.

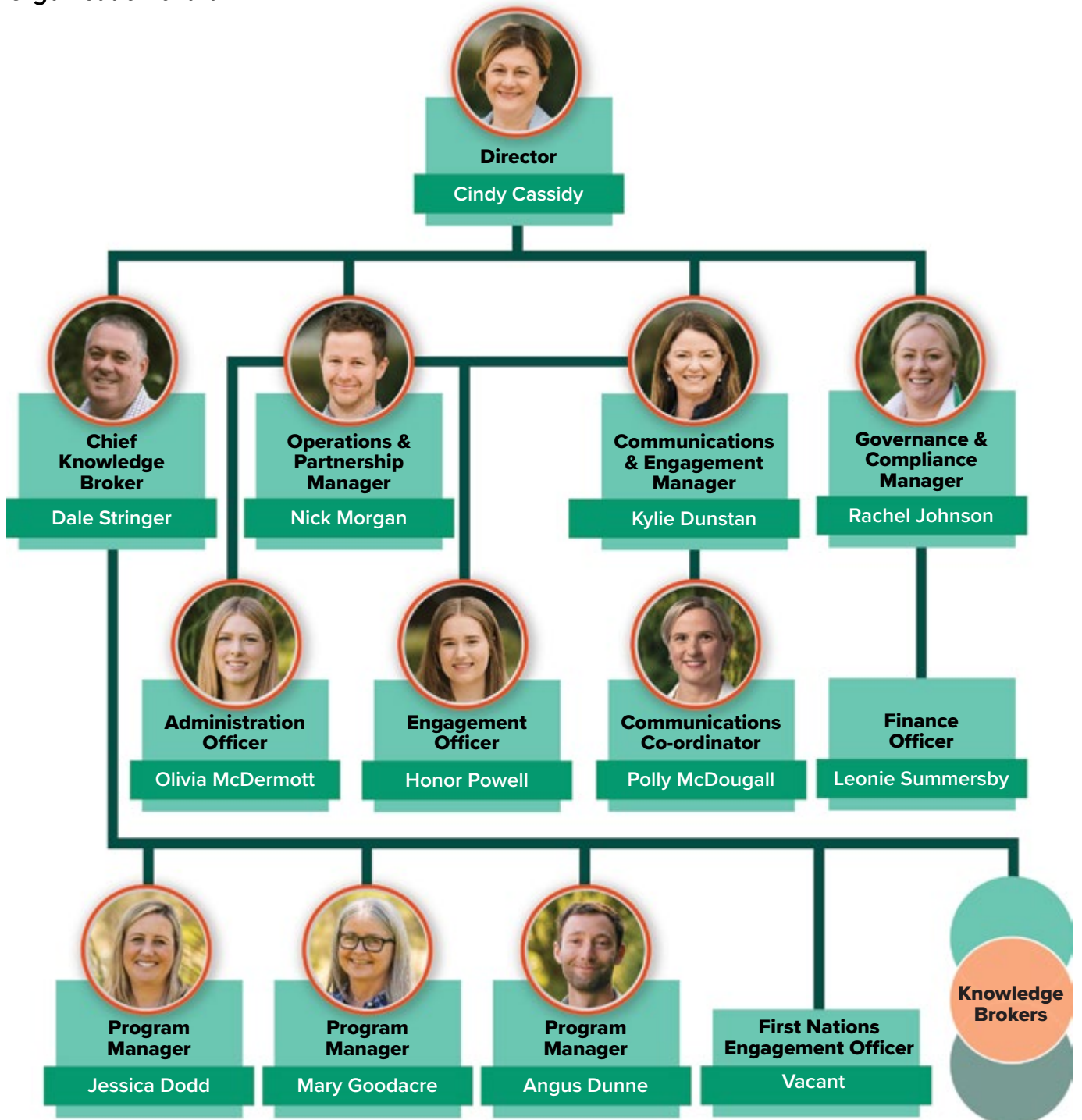
“Coming together under the Hub governance model allows us to focus on what it is we’re trying to achieve. The Hub has brought us all into the same tent – NSW government departments, universities, farming systems groups and more – and that drives good outcomes for farmers, regions and communities, as well as for the funding provider.”

Gary Rodda, Director, Statewide Programs, NSW Local Land Services

THE TEAM

Over the three years since 2021, Southern NSW Innovation Hub has grown its team and invested in its people’s capabilities, knowledge and skills. The organisational structure of the team will evolve as the Hub continues to support drought and climate resilience in southern NSW.

Organisation chart



* As of December 2024, recruitment is underway for a new First Nations Engagement Officer

COLLABORATIVE PARTNERSHIPS & NETWORKS

Since 2021, Southern NSW Innovation Hub has established extensive positive and productive working relationships, including with:

- The National Hub Network – with a particular focus on collaboration between Southern NSW and Southern Queensland Northern NSW Hubs to enable consistent delivery of activities and stakeholder experience across all of NSW.
- Local government and community groups.
- NSW Government agencies – in particular, the NSW Department of Primary Industries and Regional Development (DPIRD) and NSW Local Land Services.
- Farmer and primary producer advocacy groups including NSW Farmers' Association, National Farmers Federation, and more.
- Universities including Charles Sturt University, University of Canberra and the Australian National University.
- Natural Resource Management (NRM) groups including Landcare NSW and the Mulloon Institute.
- Farming Systems Groups operating across Southern NSW including FarmLink Research, Central West Farming Systems, Grain Orana Alliance, Holbrook Landcare Network, Irrigation Farmers Network, Irrigation Research and Extension Committee, Monaro Farming Systems, Riverine Plains, Southern Growers, Tablelands Farming Systems, and Western Murray Land Improvement Group.
- Rural Research and Development Corporations – in particular, the Grains Research and Development Corporation (GRDC), AgriFutures Australia, Meat and Livestock Australia (MLA), Hort Innovation and Wine Australia.

Up to December 2024, programs managed by Southern NSW Innovation Hub have provided direct project funding to 35 organisations, and the network of collaborators, organisations and events that receive support extends far beyond this.

Southern NSW Innovation Hub has established itself as a connector and central point for defining the priorities for its region, which in turn leads to effective project development and delivery.

“We recognise that agencies and organisations need to come together to understand what problems are facing our communities, producers and landholders – then we can collectively put our resources together and find alignment between our strengths to deliver outcomes. The Hub’s governance structure also means we have trust across organisations and once priorities have been agreed on and contracts are in place, the Hub steps back and lets us deliver.”

Gary Rodda, Director, Statewide Programs, NSW



KNOWLEDGE BROKER NETWORK

Establishing and expanding a [Knowledge Broker Network](#) was a distinctive feature of the Southern NSW Innovation Hub in the first phase of implementation, consisting of a Chief Knowledge Broker, a Knowledge Broker Coordinator, a First Nations Engagement Officer, and 22 part-time Knowledge Brokers strategically positioned within partner organisations that were working directly with farmers, landholders and communities.

The Knowledge Broker Network served to enhance efficiency in drought resilience and agricultural innovation across the region. A highlight of the Knowledge Broker Network was the extension and embrace of co-design by organisations across southern NSW to the point where it is showing up in the generation of ideas and projects.

In mid-2024, the Southern NSW Innovation Hub's Knowledge Broker Network evolved into the Hub Network Forum – a regular meeting of the network of partners and collaborators that allows people to stay in touch with others across the region, sharing information, ideas and insights about drought resilience initiatives and projects.

While the Knowledge Broker Network has now taken on a different format and way of functioning, its legacy of connections made, relationships built and knowledge shared means it continues to play an important role in how Southern NSW Innovation Hub engages across its partners and stakeholders.

“The value provided by the Knowledge Broker Network included extending the reach of programs, energising and supporting each other, embracing co-design as an effective way to get input from producers and communities, making a difference, sharing connections and networks, collaboration and empowerment that has driven legacy outcomes, and generating useful insights about farmers’ first-hand experiences of drought.”

Feedback from Knowledge Brokers

FIRST NATIONS ENGAGEMENT

Southern NSW Innovation Hub operates on the traditional lands of several First Nations communities and benefits from their invaluable insights into land management, environmental conservation and cultural preservation. Drought and climate change disproportionately affect First Nations communities due to historical dispossession and enduring policies that have affected their opportunities and cultural ties to the land. Drought and climate change can significantly impact food security in First Nations communities, including reported food insecurity during times of drought in some of the isolated First Nations communities within the regions served by the Hub. These communities have a profound cultural connection to native flora and fauna, which climate challenges threaten, impacting their ability to pass down cultural practices and traditions.

Southern NSW Innovation Hub has taken proactive steps to address these challenges, including appointing a First Nations Engagement Officer whose role it is to engage directly with First Nations communities, foster collaboration and provide essential training and support to the Hub team and network. This support has enhanced cultural awareness and capabilities for effective First Nations engagement.

Supported by the First Nations Engagement Officer until late 2024, Southern NSW Innovation Hub has been actively engaging with First Nations stakeholders across the region. These included 49 First Nations engagement activities in 2023 and 2024, with many of these focused on networking and consultations to develop connections with Aboriginal organisations across the region. These activities involved at least 200 participants across 20 different First Nations organisations and groups. The Hub is now in the process of recruiting a new First Nations Engagement Officer with the role expected to be filled in the first half of 2025 and hopes to expand its First Nations engagement in future.

Funding a project that enabled the Brungle Tumut First Nations community to establish a unique cultural garden was a particular highlight for Southern NSW Innovation Hub in 2024. Through a process of listening and collaboration, a dedicated garden space has been established for the Tumut Brungle community that is working to transmit and maintain important First Nations cultural knowledge. It will be a place for the community to grow bush tucker and other significant plants locally in Tumut, ensuring access to these even during times of drought. Additionally, it provides educational, social, cultural and career opportunities, contributing to economic empowerment of First Nations communities.

¹ <https://soe.dcceew.gov.au/indigenous/pressures/climate-change>



ADOPTION OFFICERS

Another initiative that emerged from the Future Drought Fund is the [Drought Adoption Officers](#) program which sees eight Drought Adoption Officers working across the state, embedded within partner organisation NSW Local Land Services (LLS). The Drought Adoption Officers program is supported jointly by Southern NSW Innovation Hub and Southern Queensland Northern NSW (SQNNSW) Hub to ensure farmers from all of NSW have access to practical on-ground support.

Drought Adoption Officers work directly with farmers across NSW to help them build drought-resilient businesses and effectively use drought preparedness tools. They help farmers and landholders to use Future Drought Fund innovations through face-to-face meetings, visiting farms, hosting workshops, presenting webinars, attending events, demonstrating tools and strategies, and partnering with local organisations to respond to the unique needs of their region's landholders.

Southern NSW Innovation Hub and SQNNSW Hub are set to extend the funding for the Drought Adoption Officer program until the end of 2025.

The positive impact of the NSW Drought Adoption Officer program has built up over time and reflects how well-engaged with communities, regions and organisations each of the eight Officers are. Since the program started, farmers and landholders have come to rely on and trust the Adoption Officers working through NSW LLS, and the ongoing availability of the resource has been critical to the program's success.

HIGHER DEGREE BY RESEARCH (HDR) ENGAGE

Southern NSW Innovation Hub is fostering industry leaders of the future through its initiatives that support university students and early career researchers.

The Hub has developed and established two scholarships per year for Higher Degree by Research (HDR) or undergraduate university students engaged in agricultural innovation or engagement, adoption and commercialisation (EA&C) topics that support its priorities and key impact areas.

Between July 2022 and December 2024, Southern NSW Innovation Hub has been pleased to provide scholarship funding including to Phil Larwill (regenerative agriculture), Angus Dunne (agrivoltaics), and James White (AgriFutures Horizon Scholar).

In addition to the scholarships, Southern NSW Innovation Hub manages the HDR Engage program that connects post-graduate students with researchers, landholders, government organisations, community groups and industry contacts through the extensive network. HDR Engage creates opportunities to build practical skills and identify post-degree opportunities and potential career pathways, while ensuring drought resilience is embedded as a consideration throughout their careers.

The HDR candidates come from Southern NSW Innovation Hub's partner universities Charles Sturt University, Australian National University and the University of Canberra and are conducting research in areas as diverse as agroecology, sustainable agricultural practices, food processing, solar energy, information technology, water sharing management, governance in rural areas, behavioural change and more.

To date, 35 research candidates have been involved in the HDR Engage program and each year new students with relevant experience and research fields join to meet up with each other online, attend field days, network with partners, hold forums to expand their knowledge and attend Southern NSW Innovation Hub events, including the Advance NSW and Advance Southern NSW forums.

“The HDR forum involved a huge range of conversation, from sharing advice on PhD logistical issues through to discussions on the challenge of balancing agribusiness productivity and preparing for drought.”

Anne Johnson

HDR candidate, Charles Sturt University

“I learned lots and connected with people I may have never met any other way, such as Wim Linstrom from the Queensland College of Wine Tourism. The whole experience is going to be very beneficial for my career.”

Colin Starkey

HDR candidate, Charles Sturt University



4

LEVERAGING INVESTMENT

Southern NSW Innovation Hub has focused on maximising the impact of the investment made by the Australian Government’s Future Drought Fund in southern NSW by seeking opportunities to leverage that investment and more, to really deliver impact for farmers and communities.

Since its establishment in 2021, Southern NSW Innovation Hub has exceeded expectations and attracted a higher level of investment, and co-investment, than anticipated – a reflection of its commitment to collaboration and working effectively with partners and stakeholders.

Some examples of the Hub’s collaborative approach to leveraging investment for priority areas in Southern NSW include:

PROACTIVE COLLABORATION HELPS SECURE \$6.2 MILLION

In 2023, Southern NSW Innovation Hub supported Charles Sturt University to be on [the front foot](#) for the Future Drought Fund’s Long-term Trials of Drought Resilient Farming Practices Grant Program by facilitating co-design workshops with potential partners and collaborators for an envisaged project focused on mixed farming systems.

Southern NSW Innovation Hub’s involvement included coordinating meetings with TAS Farm Innovation Hub and Victoria Drought Hub, the University of Melbourne, the Tasmanian Institute of Agriculture, GRDC, MLA, Southern Growers, Irrigation Farmers Network, Central West Farming Systems, Riverine Plains, FarmLink Research and Holbrook Landcare Network, all to ensure a focused and strategic project that would boost drought resilience for mixed farming enterprises.

The extended planning time and the co-design process meant that a broad range of stakeholders could come together, prioritise ideas and refine their approaches. Once applications for the grants opened, the unique project – the Southern NSW Drought Resilient Mixed Farming Systems Trials – was already envisaged and planned, which meant Charles Sturt University could respond quickly to the opportunity and secure funding.

Project lead, Charles Sturt University’s Shawn McGrath said the support, guidance and leadership from Southern NSW Innovation Hub was invaluable to the project’s development process and being successful in securing funding of \$6.2 million over four years.

“Without Southern NSW Innovation Hub, it wouldn’t have been possible to pull together such a collaborative and broad-scoped project plan in time to respond to the grant round. We committed to creating a targeted and purposeful project with the needs of farmers in our region front and centre, all before we were certain that the investment would flow. The success of this project shows the value of co-design, collaboration and planning.”

Shawn McGrath, Senior Research Fellow, Charles Sturt University


WORKING TOGETHER ON FUTURE DROUGHT FUND APPLICATIONS IN 2024

Through a collaborative effort with key partner organisations, led by the Southern NSW Innovation Hub's project team, three project proposals were submitted under the October 2024 grant opportunities from the Future Drought Fund – for the Resilient Landscapes program and the Long-term Trials of Drought Resilient Farming Practices Program round 2.

The method of building the collaborative proposals put the [Investment Planning for Impact](#) process into action and, as a result all three projects have the potential to make impactful change in southern NSW and beyond:

- Transforming viticulture for future drought and climate resilience
- Healthy landscapes, healthy farms: Enhancing natural capital in the NSW sheep-wheat belt
- Building confidence in stock and grazing decision-making that supports drought resilience

The three projects have great potential to make impactful change across southern NSW and beyond and demonstrated the Hub's unique Investment Planning for Impact process in action.



“These projects are very much driven by feedback, issues and barriers that Hub teams are seeing at a grass roots level. They have also been developed to address genuine issues brought to our attention by stakeholders and the community.”

Dale Stringer, Chief Knowledge Broker, Southern NSW Innovation Hub



EXPANDING PROJECT IMPACT BY TAPPING INTO THE HUB NETWORK

Following the award-winning success of its first Soil PET (People, Education and Technology) Project, Little River Landcare Project Officer, Phoebe Gulliver, reached out to the Southern NSW Innovation Hub to get [help with taking it to the next level](#). This included working closely with the Hub's Chief Knowledge Broker Dale Stringer on refining the project idea, developing a detailed plan for its second phase, and identifying ways to scale up by working with new collaborators.

The plan for the extension of Little River Landcare's Soil PET Project (phase two) involved helping landholders understand various ways to manage their soils effectively and start to be proactive with actions such as nutrient budgeting.

Once the project plan for phase two of Soil PET project was developed in detail, both Southern NSW Innovation Hub and Little River Landcare were on the lookout for investment opportunities that could make it happen. That meant when new capacity building grants opened up, the proposal was ready to go, and Little River Landcare could quickly apply for funding.

“The Hub made it possible for Little River Landcare to tap into a larger network of knowledge and collaborators so we could refine our project idea. Sharing information, ideas and investment opportunities decreases the overall administrative burden and increases the opportunity for funding to reach its target and have a real impact.”

Phoebe Gulliver, Project Officer, Little River Landcare



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ON-GROUND PROJECTS

Southern NSW Innovation Hub has taken a leadership role in the successful development and delivery of projects that meet the unique needs of southern NSW to help us manage climate variability effectively.

Some of these projects, which have focused on on-ground and on-farm awareness and practice change, are included below under three specific categories.

1. **Hub collaborative projects** undertaken in partnership with other Drought Resilience Adoption and Innovation Hubs.
2. **Agricultural Innovation Hub Program** projects undertaken in alignment with the National Agricultural Innovation Priorities and focused on adoption of innovation and technologies that drive tangible community and farm benefits.
3. **Adoption projects** supported by Southern NSW Innovation Hub that are focused on improving on-farm drought resilience.

Six of these adoption projects have been involved in establishing 66 demonstration or trial sites across southern NSW that are exploring critical issues around climate resilience decision making. Some are still in their establishment phase as of December 2024 but those that are up and running – including for Saving Our Soils During Drought, Creating Landscape-scale Change through the Promotion of Resilient Pasture Systems – have hosted field walks, site visits, field days and workshops which have engaged close to 1100 people with positive feedback received.

PROJECT LOCATIONS



HUB COLLABORATIVE PROJECTS

These two cross-Hub projects are examples of collaboration between the Drought Resilience Adoption and Innovation Hubs on issues relevant to their geographical areas to help primary producers and rural and regional communities become more prepared for, and resilient to, future droughts.

Drought Management for Health and Longevity of Perennial Horticulture Plants

The national [Drought Management for Health and Longevity of Perennial Horticulture Plants](#) project was led by the SA Drought Hub and partners included Southern NSW Innovation Hub, TAS Farm Innovation Hub, and Victoria Drought Hub.

In NSW, Southern NSW Innovation Hub partnered with the NSW Department of Primary Industries and Regional Development (DPIRD) to work directly with 60 citrus, almond, winegrape and cherry orchardists to co-design and deliver four irrigation ‘masterclasses’ across southern NSW.

The irrigation masterclasses equipped growers with new knowledge, skills and confidence to manage drought and on-farm demonstrations saved 0.6-2.2 megalitres of water using masterclass irrigation practices and principles.

“I’ve gained confidence in what I have to do in a drought, how to handle it a lot better and to be water wise.”

One citrus grower described how the masterclass increased his understanding of water movement through the soil and how to optimise his irrigation.

The Southern NSW Drought Management for Health and Longevity of Perennial Horticulture Plants project is supported by Southern NSW Innovation Hub, through funding from the Australian Government’s Future Drought Fund.



Managing Rangelands for Drought Resilience

The national [Managing Rangelands for Drought Resilience project](#) was led by the Northern Hub (Northern WA and NT Drought Resilience Adoption and Innovation Hub) and partners included Southern NSW Innovation Hub, South-West WA Hub, Southern QLD and Northern NSW (SQNNNSW) Hub, and Tropical North Queensland Hub.

The Southern NSW Managing Rangelands for Drought Resilience project focused on working with pastoralists from Western NSW to test and demonstrate how satellite-based mapping technology can predict groundcover changes up to six months ahead of drought.

Pastoralists Bill and Pip Ryan worked with Dr John Leys of Wind Erosion Consulting to assess how to use the freely available satellite vegetation cover data from the Geoglam Rangeland and Pasture Productivity (RaPP) mapping tool to set an on-farm trigger point to prepare in advance for drought.

“Our business is based on managing the land, the animals and the welfare of the people, all within an ethical framework. Vegetation is the core of our production. Protecting perennial saltbush, vegetation and soils, especially during drought, is fundamental to our sustainability.”

Pip Ryan, “Curragh”, Oxley

The Southern NSW Managing Rangelands for Drought Resilience project is supported by Southern NSW Innovation Hub, through funding from the Australian Government’s Future Drought Fund.

AGRICULTURAL INNOVATION HUBS PROGRAM PROJECTS

The Southern NSW Innovation Hub's Agricultural Innovation Hubs Program and the following three projects are part of a joint initiative with the Australian Government's Department of Agriculture, Fisheries and Forestry, in alignment with the National Agricultural Innovation Priorities.

The following projects demonstrate how Southern NSW Innovation Hub is building strong working relationships between farmers, industries, researchers and associated organisations to increase the adoption of innovation and technology and drive tangible on-farm and in-community benefits across the southern NSW region.

Capturing the Value of AgTech Innovation On-farm

The [Capturing the Value of AgTech Innovation On-farm](#) project set out to address one of the barriers to AgTech adoption by developing a tool producers could use to see the costs and benefits of AgTech as it applies to their operation – either by entering their own farm data or by using calculations built into an online platform.

The aim was to create an easy-to-use online AgTech ROI Calculator for producers to estimate the net benefit (or cost) of the potential of AgTech solutions if adopted on their farm. The AgTech ROI Calculator tool will allow producers to see the costs and benefits of AgTech as it applies to their operation – either by entering their own farm data or by using calculations built into an online platform.

The project is a collaboration between the Southern NSW Innovation Hub, Meat & Livestock Australia (MLA), New South Wales Department of Primary Industries and Regional Development (DPIRD), Charles Sturt University (CSU), beef producers, the Farming Systems Group Alliance (FSGA) and NSW Local Land Services (LLS), with development from KPMG.

The total investment for the project was \$600,000, with \$500,000 from the Australian Government's Agricultural Innovation Hubs Program Grant and \$100,000 from Meat & Livestock Australia (MLA). Over \$500,000 was also invested as in-kind co-contributions from partners, stakeholders and participants in the project.

The AgTech ROI Calculator will be a lasting asset for southern NSW with significant potential to expand to other industries and regions.

Early Insights for More Resilient Communities

The [Early Insights for More Resilient Communities](#) project focused on developing tools that will allow us to identify changes in community resilience sooner so support services can tailor solutions where they are needed to assist individuals, groups and communities to work through change.

Bringing together preeminent researchers, the latest literature, and a range of disparate and novel data sets – such as social media use and buying patterns – the project has developed a set of indicators that can measure changes in community resilience.

Early Insights for More Resilient Communities cont.

The Early Insights for More Resilient Communities project is a collaboration across Southern NSW Innovation Hub, Charles Sturt University, Australian National University, University of Canberra, and University of Wollongong.

The total investment for the project was more than \$700,000 from the Australian Government's Agricultural Innovation Hubs Program Grant. There was also over \$600,000 invested as in-kind co-contributions from partners, stakeholders and participants in the project.

The result is the Early Insights for More Resilient Communities Dashboard – a system of early warning signs to help key services and support agencies respond sooner to community needs so the negative impacts of cumulative climate events can be mitigated or reduced.

Managing Biosecurity Risks

The [Managing Biosecurity Risks project](#) won a national [2024 Australian Biosecurity Award](#) in the community category for its work with high value industry and producers in southern NSW to find ways to increase the speed of tracking possible vectors to reduce, halt or eradicate biosecurity threats.

The approach was to bring together key stakeholders to extend regional understanding and participate in regional biosecurity profiling. Then focus on identifying early risks, establishing preventative measures, monitoring threats and appropriate and rapid responses. The project simulated the effectiveness of commercial tracing technology and engaged NSW wine producers, supply chain, community and response agencies to maximise biosecurity preparedness and management.

The Managing Biosecurity Risks project was a collaboration across Southern NSW Innovation Hub, NSW DPIRD, NSW Wine, and Onside. The total investment for the project was \$390,000 from the Australian Government's Agricultural Innovation Hubs Program Grant and \$46,000 from NSW DPIRD. There was also more than \$800,000 of in-kind contributions from NSW DPIRD, NSW Wine and other partners, stakeholders and participants.



The Managing Biosecurity Risks project demonstrated that use of effective technologies led to greater awareness of biosecurity risks and requirements, and greater adoption of biosecurity practices.

ADOPTION PROJECTS

The following Southern NSW Innovation Hub agricultural adoption projects are focused on improving on-farm performance in terms of drought resilience. This occurs through the identification of beneficial practices and methods of farming, awareness and use of key drought preparation tools, knowledge extension to maximise sustainability in soils and farming systems, and technology use that supports effective on-farm decision making.

Southern NSW Drought Resilient Mixed Farming System Trials

The [Southern NSW Drought Resilient Mixed Farming System Trials](#) project aims to test and analyse different mixed farming treatments that balance flexibility with stability to identify which system, when viewed as a whole, results in the highest productivity, economic value and environmental sustainability.

The project is led by Charles Sturt University's Gulbali Institute, with project management and communications support provided by Southern NSW Innovation Hub. The project's structure includes seven long-term field trial sites across southern NSW managed by Charles Sturt University and Farming Systems Groups, including Central West Farming Systems, FarmLink Research, Holbrook Landcare Network, Irrigation Farmers Network, Riverine Plains and Southern Growers.

Mixed farming systems make up around 70% of NSW farms and it's vital to understand which specific activities within a mixed farming system will lead to the most productive and resilient farming businesses long-term.

The Southern NSW Drought Resilient Mixed Farming System Trials project is supported by Southern NSW Innovation Hub, through funding from the Australian Government's Future Drought Fund under the Long-term Trials of Drought Resilient Farming Practices Program.



Photo by Irrigation Research and Extension Committee (IREC)

RiskWi\$e National Risk Management Initiative

[RiskWi\\$e](#) is a National Risk Management Initiative (NRMI) led by CSIRO that seeks to understand and improve the risk-reward outcomes for Australian grain growers by supporting on-farm decision-making.

Southern NSW Innovation Hub leads the RiskWi\$e NSW Action Research Group (ARG), which is a collaboration between 10 organisations working across the majority of NSW's low, medium and high rainfall broadacre production zones. Project partners with Southern NSW Innovation Hub in the NSW ARG include AgGrow Agronomy, Agricultural Marketing and Production Systems (AMPS), Central West Farming Systems (CWFS), FarmLink Research, Grain Orana Alliance (GOA), Holbrook Landcare Network, Irrigation Farmers Network, Irrigation Research and Extension Committee (IREC), Riverine Plains, and Southern Growers.

Improved understanding of risks empowers growers. With a better knowledge of risks, grain growers will be able to make decisions about on-farm management that maximise the rewards and minimise the downside risk.

The RiskWi\$e project receives funding through a \$30 million investment from the Grains Research and Development Corporation (GRDC) and will run from 2023 to 2028.

Farm Water Management Planning

Effective management of farm water depends on farmers' water management literacy, awareness of their options for water storage, understanding of the importance of water quality to stock performance and understanding the impact of water management on production systems and natural assets.

The [Farm Water Management Planning](#) project aims to upskill farmers in southern NSW on water management planning to reduce the impact of drought on livestock, productive pastures, soil and natural assets. It is a collaborative partnership through Southern NSW Innovation Hub with Murray Local Land Services (LLS), and farmer and industry organisations across the Murray, Riverina and South East Local Land Services regions.

Tailored, specific farm water management plans are being developed for farmers at workshops then one-on-one follow-up sessions are held to finalise them. With the project partners – Holbrook Landcare Network, Riverine Plains, Western Murray Land Improvement Group, Corowa District Landcare, West Hume Landcare, Ricegrowers' Association of Australia, Southern Growers and Irrigation Farmers Network – field days at 10 demonstration sites have been established across southern NSW to provide clear examples of design options and evidence of the benefits of implementing farm water management plans.

The Farm Water Management Planning project reduces the impact of drought in southern NSW by supporting farmers to determine their farm's water needs and then expanding their capacity to meet those needs.

The Farm Water Management Planning project is supported by Southern NSW Innovation Hub through funding from the Australian Government's Future Drought Fund under an Extension & Adoption of Drought Resilience Farming Practices Grant.

Forewarned is Forearmed Climate Coaching

Advisors across multiple farming industries can now help farmers better understand long-term weather data and climate variability through the Southern NSW Innovation Hub's [Forewarned is Forearmed Climate Coaching](#) project.

Southern NSW Innovation Hub partnered with Meat & Livestock Australia (MLA) to develop resources to train almost 40 advisors across six industries to work with farmers to apply seasonal climate forecasts on-farm.

In the final phase of this five-year project, Southern NSW Innovation Hub worked with dairy, beef, grains, sugar and wine reference groups to develop industry-specific resources. This included learning resources tailored to farmers as well as pilot 'train the trainer' and producer workshops across the different industries.

Forewarned is Forearmed Climate Coaching cont.

Increasing the knowledge and confidence in interpreting seasonal forecasts for farm advisors has flow-on effects, with a typical farm advisor likely to influence 20-50 producer clients.

The Forewarned is Forearmed Climate Coaching project is part of the final stage of the national Bureau of Meteorology [Forewarned is Forearmed](#) project, supported by Southern NSW Innovation Hub through funding from the Australian Government's Department of Agriculture, Fisheries and Forestry within its Rural R&D for Profit program.

Improved Drought Resilience Through Optimal Management of Soils and Available Water

Since 2017, a Grains Research and Development Corporation (GRDC) research project Farming systems profit and risk over time has shown that early sowing of slower maturing crops, diverse legume rotations and nitrogen (N) banking can all increase profitability and productivity by increasing soil moisture availability and preventing carbon and nutrient loss under drought conditions. Proving these practices are profitable and deliver co-benefits on a paddock scale is key to grower adoption.

Riverine Plains and Southern NSW Innovation Hub worked with CSIRO and NSW Department of Primary Industries (DPI) on the [Improved Drought Resilience Through Optimal Management of Soils and Available Water](#) project to convert the GRDC research findings into adoptable outcomes and provide another adoption pathway. Four Farming Systems Groups then delivered the project.

Led by Riverine Plains, in collaboration with Southern Growers, FarmLink Research and Central West Farming Systems, the project deployed three strategies previously validated in small-plot trial across 12 paddock-scale demonstration sites throughout southern NSW across the 2022 to 2024 cropping seasons.

Drought is an inevitable part of farming in Australia, however, outcomes from the Improved Drought Resilience Through Optimal Management of Soils and Available Water project are equipping farmers with a host of additional strategies to help them better prepare for the inevitable.

The Improved Drought Resilience Through Optimal Management of Soils and Available Water project is supported by Southern NSW Innovation Hub, through funding from the Australian Government's Future Drought Fund under the Drought Resilient Soils and Landscapes Program.

Creating Landscape-scale Change through the Promotion of Resilient Pasture Systems

Perennial pastures are essential in any mixed farming operation, and a high performing pasture provides stability and less reliance on other feed sources. The [Creating Landscape-scale Change through the Promotion of Resilient Pasture Systems](#) project demonstrated modern pasture species combinations and management practices known to build drought resilience.

The project was led by Holbrook Landcare Network with collaborating partners including Central West Farming Systems, FarmLink Research, Monaro Farming Systems, NSW Department of Primary Industries (DPI), NSW Local Land Services (LLS), and Riverine Plains.

Modern pasture species and management practices make it possible for farmers to protect soils and support pasture productivity during and after droughts.

The Creating Landscape-scale Change through the Promotion of Resilient Pasture Systems project is supported by Southern NSW Innovation Hub, through funding from the Australian Government's Future Drought Fund under the Drought Resilient Soils and Landscapes Program.

Saving Our Soils During Drought

The [Saving Our Soils During Drought](#) project enhanced drought resilience in southern NSW by promoting the adoption of stock confinement feeding areas to mitigate the adverse effects of drought on livestock production systems and farm natural assets, particularly soils.

During droughts, soils that lose groundcover become highly susceptible to wind and water erosion, leading to significant land degradation, as evidenced by dust storms and severe soil erosion. Delivered by Southern NSW Innovation Hub partner NSW Local Land Services (LLS), the Saving Our Soils During Drought project addresses these challenges by demonstrating best practices in stock confinement feeding area implementation to foster widespread adoption.

112 farmers attended 11 stock confinement feeding area workshops between July 2023 and February 2024 and 100% of the participants indicated that they would consider or definitely would be making a change to their farming operation based on the information provided. Overall, following the workshops the farmers said they better understood livestock feed requirements, were more confident using feed budgeting tools, and would consider implementing a stock confinement feeding area.

The Saving Our Soils During Drought project is supported by Southern NSW Innovation Hub, through funding from the Australian Government's Future Drought Fund under the Drought Resilient Soils and Landscapes Program.

Drought Adoption Officers

Embedded within Southern NSW Innovation Hub's partner organisation NSW Local Land Services (LLS), eight [Drought Adoption Officers](#) work directly with farmers across NSW to help them build drought-resilient businesses and effectively use drought preparedness tools.



“The Adoption Officers are there with the community the whole way through, not just in dry times, and they carry on relationships that build and grow. Being part of their communities across NSW also means they hear what is really going on and can respond to what they need.”

Gary Rodda, Director, Statewide Programs, NSW LLS

The Southern NSW Managing Rangelands for Drought Resilience project is supported by Southern NSW Innovation Hub, through funding from the Australian Government's Future Drought Fund.

Regional Soils Coordinators

A valuable extension and information-sharing project for Southern NSW Innovation Hub are the [Regional Soils Coordinators](#) who work through partner organisation NSW Department of Primary Industries and Regional Development (DPIRD).

Nationally, Regional Soils Coordinators are part of the Climate-Smart Agriculture Program that aims to build Australia's capacity in soil health and soil science to drive agricultural sustainability, productivity, and competitiveness.

In southern NSW, Regional Soils Coordinators Luke Beange and Alex Schultz deliver integrated and targeted soil services to farmers and communities. This includes facilitating a unique Community of Practice (CoP) and ensuring the consistent sharing of quality scientific information with researchers, advisers and land managers. Regional Soils Coordinators also host monthly webinars to communicate quality, scientific soil information, tailored to the needs of landholders.

“Regional Soils Coordinators act as translators, making soil science accessible. It's our role to make the soil experts available to advisers, researchers, agronomists and producers to strengthen soil knowledge more broadly.”

Luke Beange, Soils Development Officer & Regional Soils Coordinator, NSW DPIRD

Regional Soils Coordinators are supported by Southern NSW Innovation Hub through funding from the Australian Government's Climate-Smart Agriculture Program under the Natural Heritage Trust.

Stock Confinement Area Virtual Reality

An innovative [Stock Confinement Area Virtual Reality \(VR\) experience](#) that helps landholders plan for future droughts was developed through a partnership between the Southern NSW Innovation Hub and NSW Local Land Services (LLS).

The VR experience transports viewers to established stock confinement feeding areas across the region, helping farmers see firsthand how planning for drought now could boost their productivity in bad seasons.



“The VR experience is the most realistic and immersive way for farmers to see how stock confinement feeding areas could work for them and operates like a real estate virtual property tour.”

Tom White, NSW State Agriculture Project Coordinator

The Stock Confinement Area VR experience is supported by Southern NSW Innovation Hub, through funding from the Australian Government’s Future Drought Fund under the Drought Resilient Soils and Landscapes Program.



Looking to the future



While it is valuable to reflect on the past and Southern NSW Innovation Hub's achievements to date, the focus is firmly on a future in which southern NSW has vibrant industries, landscapes and communities. The vision is for Southern NSW Innovation Hub to work with and for the people of southern NSW in order to ensure they can meet future challenges, capitalise on opportunities and respond effectively to a changing climate.

To achieve this, it will be critical to further build the capacity and capabilities of agricultural industries and communities in southern NSW. Resourcing remains an ongoing challenge for regional Australia and strategies that support leveraging capacity and fostering collaboration are very important. Bringing together farmers, researchers, industry experts, communities and services to share information and drive innovation is a continued priority for Southern NSW Innovation Hub. Innovation needs to expand and adoption of the practices and tools that are known to improve drought resilience needs to increase. Southern NSW Innovation Hub remains focused on building a resilient future for southern NSW underpinned by collaborative partnerships, innovative solutions, on-the-ground support, and real world impact.

