

NSW DPIE Predicting Weather Patterns – Know, Assess, Respond

COUNCIL NAME

Murray River Council

WEB ADDRESS

<https://www.murrayriver.nsw.gov.au/Home>

SIZE

11,865 square kilometres

POPULATION

12,000

Overview of the project

This case study is a summary of the presentation titled ‘Predicting Weather Patterns – Know, Assess, Respond’ by Cathy Semmler from the Climate Resilience and Net Zero Emissions branch of NSW Department of Planning, Industry and Environment (DPIE) held on 9th Sept. 2022, hosted by Western Murray Land Improvement Group (WMLIG). The presentation was supported by Murray River Council’s (MRC) [Building Our Communities in Advance Project](#) via funding from Local Government NSW. This project builds upon the purpose and vision of MRC’s [Adverse Event Plan](#) resilience principles of community capacity building.

DPIE partner with state government, local government and the wider community to deliver state-wide programs that provide support under three broad themes:

- Regional climate snapshots and local climate projections (KNOW)
- Risk assessment, regional vulnerabilities and priorities for change, opportunities to reduce emissions (ASSESS)
- Adaptation and transition to low carbon (RESPOND)

The Information session provided an overview of regional climate and climate projections (see [Murray Murrumbidgee Climate Change Snapshot](#)), assessing business risk, adaptive capacity and regional vulnerabilities, opportunities to reduce emissions and advice on how we should be adapting and transitioning to climate change in a low carbon environment.

The presentation also provided the findings from the [Western Enabling Regional Adaptation](#) project workshops held in the Riverina Murray region to share with participants on pathways to support climate change adaptation.



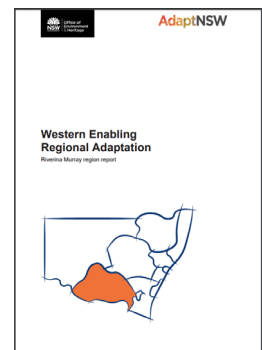
How the project was carried out

13 people attended the three-hour on-line session which covered topics from both DPIE and the Bureau of Meteorology (BOM). See LGNSW IRCC Case study, [BOM Making the most of weather and climate information](#).

The NSW DPIE presentation was tailored to the MRC area as well as the broader Riverina Murray region and provided a summary of regional Western Enabling Adaptation workshops that used local knowledge to outline the adaptive capacity of the region to respond to future climate change and the vulnerabilities for the Riverina Murray region, with a caveat that climate change is an exacerbator of any existing issues.

Seven priority regional systems were identified and the recommended pathways for a transition towards a new desired state for climate change adaptation, This was:

- Riverine ecosystems
- Land management
- Mixed farming
- Irrigated agriculture
- Energy
- Mixed farming
- Irrigated agriculture
- Energy



Western Murray
Land Improvement Group

REFERENCES

NSW DPIE presentation 'Predicting Weather Patterns – Know, Assess, Respond'.

NSW DPIE Report, Western Enabling Regional Adaptation

Outcomes now and in the future

Each of the priority systems described the transition pathways that are needed to build resilience. Farming systems included the need for a policy environment that supports adoption of innovative technology, better use of data in decision-making and novel business models. In addition, the inclusion of additional revenue streams from new service markets (such as solar and carbon farming, and low input farming systems) could be expected to complement traditional farming enterprises and consolidate viability by supplementing farm incomes. Ongoing support for the development of an educated, multi-disciplinary agricultural service sector that works in conjunction with a farming community that has ready access to ongoing professional development opportunities will enhance these outcomes.

Examples of how the region can respond to change were outlined. WMLIG is providing examples of local action being taken for the purposes of alignment with this program, such as:

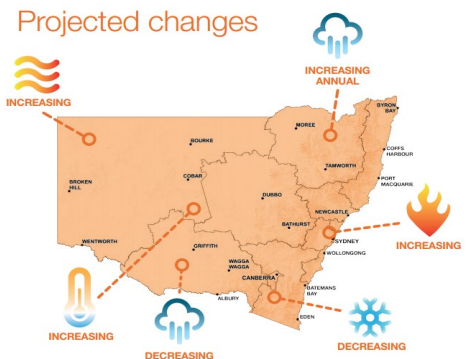
- Climate change ready re-vegetation ([Climate-ready revegetation](#)): See also WMLIG document for resilient dryland pasture species [EVORIL technical notes](#) and [Pasture establishment considerations](#).
- Empowering consumers and businesses to make sustainable choices: WMLIG is also assisting with adoption of agro-ecological production principles underpinning natural resource sustainability, and via farmer backstory support, help exploit niche market opportunities.
- Reducing emissions from Agriculture: WMLIG is trialling biochar production from rice and other organic waste residues, that will be used as a feed additive for methane reduction in ruminants, ameliorate soils and reduce fertiliser inputs. See [Case Study Agri-innovation precinct – organic waste circular economy pilot](#).
- Land sector net Zero plan objectives: WMLIG is supporting farmers access to revenue from carbon and biodiversity markets. See [Case Study Edward Wakool Land Stewardship Incentive and Environmental Assessment Pilot](#).

Current opportunities arising from the project outcome:

WMLIG will provide NSW DPIE presentation information with relevant document links to resources to the local community on WMLIG's website and mail out subscription (490 people) and the regional community as part of the Murray Landcare Collective. The broader NSW community will have access to the information via the NSW Landcare Gateway (60,000 volunteers and staff), and will seek to capture recommendations for local and regional community strategy and economic development plans in the future.

Opportunities moving forward:

WMLIG would welcome collaborations and funding to support future biochar and biofertiliser trials being conducted in the near future.



Benefits and lessons learned

It is clear that the strategic objectives of NSW DPIE and Local Government NSW State wide programs align with the strategic program objectives of MRC and WMLIG. This is evident via the range of case studies and deliverables conducted as part of the Building our Communities in Advance Project.

Lessons Learned: 13 people attended the online workshop which is well below average for WMLIG events which was disappointing. This is likely a consequence of both poor connectivity issues experienced in the region as well as a lack of online engagement experience and enthusiasm by our target audience. This was the first webinar trialled by WMLIG and reinforced that local people relish in the social interaction aspects of capacity building events, not just the subject matter.

More information

Contact

Name: Roger Knight
Position: Executive Officer
Phone: 03 5453 1577
Email: admin@wmlig.org



Funded by the NSW Government in association with Local Government NSW