Integrated Vulnerability Assessment for the S.A. Murray-Darling Basin NRM Board Region

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Understanding the relationship between exposure, sensitivity, adaptive capacity and vulnerability enables the identification of specific adaption options to boost adaptive capacity.

In many cases boosting adaptive capacity will be achieved by reducing other non-climate related stresses. Social, economic and environmental systems that are already under stress from other changes will find it difficult to cope with the expected climate changes as well.

Text courtesy LGA S.A.
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“An integrated step toward economic, social and environmental wellbeing in the face of long-term climate change”

The project is aimed at “value adding” to the body of work that has been and is being undertaken in the S.A. Murray-Darling Basin region.

The objectives of this project will be largely met by collation, interpretation and dissemination of current and previous studies.

Aims to bring all climate change projects within the region together, including SBC.

A project focus will be on disaster management (bushfire, extreme storm, drought).

The following stakeholders will be actively involved in the project:

SA Murray-Darling Basin Natural Resources Management Board
Regional Development Australia (Murraylands and Riverland)
Local Government Association
Murray & Mallee Zone Emergency Management Committee
University of Adelaide
Department for Environment & Natural Resources
The general community

**Lower Murray Landscape Futures**

- **S0 - Baseline**
- **S1 - Mild Warming/Drying**
- **S2 - Moderate Warming/Drying**
- **S3 - Severe Warming/Drying**
- **S4 - Mild Warming/Wetling**

**Woodlot Plantings**

- **Projected carbon sequestration**
- **Low**: 500 tC
- **Medium**: 1000 tC
- **High**: 1500 tC

**Nature Vegetation Cover**

- **Lowest**
- **Moderate**
- **Higher**

**Annual carbon sequestration rates**

- **Value**
- **High**: 1500 tC
- **Medium**: 1500 tC
- **Low**: 1500 tC

**Map created by the South Australian Department of Sustainable Development, Environment and Water Resources.**

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What phase 1 & 2 will deliver:

- A risk assessment of the economic, social and environmental assets for the region working with all sector stakeholders
- Regionalize climate data and risk at a finer scale
- Consider mitigation actions
- Look at the capacity from within a system to adapt to the impacts
- Develop adaption options and prioritises them
- Consider risk transference where actions may affect others adversely
- Merge project activities

(Guidelines for undertaking a regional integrated climate change vulnerability assessment in South Australia