

# Investigating the environmental, social and economic impacts of conventional gas development in South East South Australia

## South Australian onshore gas research through CSIRO's Gas Industry Social and Environmental Research Alliance.

To better understand the long-term cumulative environmental, social and economic impacts of conventional gas development in the South East, Australia's lead science agency, the CSIRO, began a three-year research program in the region in February 2018.




CSIRO's Gas Industry Social and Environmental Research Alliance (GISERA), supported by the State and Australian Governments, is working on an initial round of six projects to provide independent information for communities, government and industry.

Underlying South Australia's South East is part of the Otway Basin, a geological basin which has been a target of onshore gas exploration and production since 1987.

While the most recent production began in the 1980s, the first well was drilled in the Otway back in 1912 and the first oil exploration in the South East occurred in 1866, just north of the Otway.

To help identify South Australian research priorities, a SA Regional Research Advisory Committee (RRAC) was established to approve research proposals on the range of science questions to which the community, government and local industry seek answers. The SA RRAC includes a majority of independent local members.

### The six first round research projects now underway in SA include:

Research subject area	Project	Outcomes
 <b>Surface and groundwater</b>	Water contamination: causes, pathways and risks	Achieving a realistic quantification of groundwater contamination risks in gas development areas, providing improved knowledge for regulators, industry and community.
	Groundwater balance in gas development regions of South East SA	An improved understanding of groundwater flow regimes in the Otway Basin to inform decision making and community understanding of licensing and management measures required for optimal water use.
	Microbial degradation of onshore gas-related chemical compounds	Information about which chemical compounds are degraded by microbes living in the soils and subsurface aquifers, and the impact on these microbial communities. This data can be used to assess the health of an ecosystem.
 <b>Social and economic</b>	Assessing the value of locally produced conventional gas in SA's South East	Knowledge for policy makers and local businesses about the socio-economic value of gas activity for local communities, and an improved capacity to forecast outcomes from industry development.
	Community well-being and attitudes to conventional gas	Baseline information about community well-being, perceptions, expectations and resilience for conventional gas development, to improve awareness and knowledge.
 <b>Agricultural land management</b>	Gas impacts and opportunities on primary industries	Information to assist community understanding and inform policy regarding potential impacts and opportunities from conventional gas development on primary industries.

## FAST FACTS GISERA AND THE OTWAY

### What is GISERA?

GISERA is the Gas Industry Social and Environment Research Alliance, which is a collaboration between Australia's lead science agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), State Governments and industry.

The Alliance was set up in 2011 to undertake publicly-reported independent research into onshore gas regions to better inform communities, governments and policy makers. GISERA aims to ensure the research conducted by CSIRO is informed by, and of benefit to, the broader community and industry.

### Is it independent?

CSIRO has built its reputation on providing impartial, integrated research to industry, regulators and the wider community. GISERA's governance model is central to ensuring independence and transparency in the research undertaken by CSIRO.

### What GISERA research is being undertaken in South Australia?

The State Government and the CSIRO, through GISERA, are partnering to undertake social and environmental research on the potential impacts and opportunities of onshore gas development on the environment and communities in the onshore Otway Basin in South Australia's South East.

In 2018, six projects were approved for the region.

### How much funding has been committed to this region?

The first round of research funding is \$2.2 million, with contributions from the SA Government (\$1 million), the Australian Government (\$1 million) and CSIRO (\$200,000).

### Will this research be available to the South Australian public?

Absolutely. GISERA's research is publicly available at [gisera.csiro.au](http://gisera.csiro.au) as well as explanatory fact sheets and videos. GISERA also shares its research through local, regional and national workshops, seminars, conferences and technical briefings.

### Is the research overseen by South Australians?

A South Australian Regional Research Advisory Committee which includes a majority of SA members approves all research to be undertaken in SA and ensures the research agenda meets the needs of public good research. It does not currently include members from the gas industry operating in the region.

A National Research Management Committee oversees day-to-day operations (but makes no funding decisions), with representation from CSIRO, and partners, including Australia Pacific LNG, Origin Energy, QGC, Santos and the Commonwealth Department of Industry, Innovation and Science. All committee decisions are by simple majority vote.

Dive deeper on the GISERA website at [gisera.csiro.au/states/sa](http://gisera.csiro.au/states/sa)



GISERA is working with the local community to understand the research priorities in the region



The Haselgrove 3 Otway Basin gas discovery near Penola in SA's South East.

### ABOUT CSIRO's GISERA

The Gas Industry Social and Environmental Research Alliance (GISERA) is a collaboration between CSIRO, Commonwealth and state governments and industry established to undertake publicly-reported independent research. The purpose of GISERA is to provide quality assured scientific research and information to communities living in gas development regions focusing on social and environmental topics including: groundwater and surface water, biodiversity, land management, the marine environment, and socio-economic impacts. The governance structure for GISERA is designed to provide for and protect research independence and transparency of research. Visit [gisera.csiro.au](http://gisera.csiro.au) for more information about GISERA's governance structure, projects and research findings.

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