



Australia's National  
Science Agency

**GISERA** | Gas Industry Social and Environmental Research Alliance

# Progress report

Methane contributions from holding ponds – a desktop study



Australian Government  
Department of Industry, Science,  
Energy and Resources



Supported by  
Government of  
South Australia



# Progress against project milestones

Progress against milestones/tasks are approved by the GISERA Director, acting with authority in accordance with the GISERA Alliance Agreement.

Progress against project milestones/tasks is indicated by two methods: Traffic light reports and descriptive Project schedule reports.

1. Traffic light reports in the Project Schedule Table below show progress using a simple colour code:

- **Green:**

- Milestone fully met according to schedule.
- Project is expected to continue to deliver according to plan.
- Milestone payment is approved.

- **Amber:**

- Milestone largely met according to schedule.
- Project has experienced delays or difficulties that will be overcome by next milestone, enabling project to return to delivery according to plan by next milestone.
- Milestone payment is withheld.
- Milestone payment withheld for second of two successive amber lights; project review initiated and undertaken by GISERA Director.

- **Red:**

- Milestone not met according to schedule.
- Problems in meeting milestone are likely to impact subsequent project delivery, such that revisions to project timing, scope or budget must be considered.
- Milestone payment is withheld.
- Project review initiated by GISERA Director.

2. Progress Schedule Reports outline task objectives and outputs and describe, in the 'progress report' section, the means and extent to which progress towards tasks has been made.

## Project schedule table

TASK NUMBER	TASK DESCRIPTION	SCHEDULED START	SCHEDULED FINISH	COMMENT
1	Desktop study of methane contributions from holding ponds	25 July 22	30 Nov 22	This project will be delivered March 2023.

## Project schedule report

### TASK 1: Desktop study of methane contributions from holding ponds

#### BACKGROUND

To assess the significance of methane emissions from CSG water holding facilities in context of other emissions from the onshore gas industry and aquatic systems and natural water bodies, a survey of available literature and industry data will be conducted, identifying key controls, and assessing best analytical protocols to quantify emissions in the field.

#### TASK OBJECTIVES

Conduct data discovery through a literature survey of holding pond GHG emissions. This will include a review of emissions from holding ponds and water treatment facilities, and other potential operational sources. A review of emissions from other natural aquatic systems (e.g., lakes, ponds, pools) will also be conducted. Aspects such as the seasonal and diurnal controls on holding pond emissions will be assessed. The task will reduce uncertainty as to whether methane emissions from holding ponds are quantitatively significant and close a major knowledge gap. An assessment of best practise analytical methods will be conducted with a view to developing a scientific field campaign workflow for future project investigations and data collection in Queensland.

#### TASK OUTPUTS AND SPECIFIC DELIVERABLES

Review completed, and outputs are used to reduce uncertainty surrounding the potential for methane emissions from holding ponds in Queensland.

#### PROGRESS REPORT


This milestone will be delivered March 2023.

## Variations to Project Order

Changes to research Project Orders are approved by the GISERA Director, acting with authority, in accordance with the GISERA Alliance Agreement. Any variations above the GISERA Director's delegation require the approval of the relevant GISERA Research Advisory Committee.

The table below details variations to research Project Order.

Register of changes to Research Project Order

DATE	ISSUE	ACTION	AUTHORISATION
22/12/22	There have been delays in establishing the technical reference group and obtaining data	Milestone 1 will be extended from November to March 2023.	

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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, greenhouse gas emissions, 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.