

Actions from GISERA Research Advisory Committee Meeting 3 February 2016

Key

Action Open
Action Due/overdue
Action complete/in train

	Item	Action	Owner	Due	Status
1.	03-02-16 Item 1	Action 1 : The proponents to incorporate into their reports the challenges of identifying 'background' vs industrial sources of these particles.	Research Proponent	Ongoing	
2.	03-02-16 Item 1	Action 2 : The proponents to interact where possible with health studies so that the data collected in the air quality study is of use to those future health studies.	Research Proponent	Ongoing	
3.	03-02-16 Item 1	Action 3 : Reference concentrations be provided and researchers reports to provide context for the findings of this study.	Research Proponent	Ongoing	
4.	03-02-16 Item 1	Action 4 : The proponent to insert a map of the proposed sampling locations in the project proposal.	Research Proponent	5 February 2016	
5.	03-02-16 Item 1	Action 5 : The proponent to state exactly what species will be reported on the DEHP webpage and state whether Radium will be measured in grab samples.	Research Proponent	5 February 2016	



6.	03-02-16 Item 1	Action 6: The researchers to participate in GISERA community information sessions to explain results of this study in context and in a form that the lay person can understand.	Research Proponent	Ongoing	
7.	03-02-16 Item 1	Action 7: The proponents to ensure reporting includes a map of sampling locations relative to infrastructure in the region.	Research Proponent	Ongoing	
8.	03-02-16 Item 1	Action 8: The proponents to consider the feasibility of testing of air quality adjacent to holding ponds of produced water and water treatment plants.	Research Proponent	Ongoing	
9.	03-02-16 Item 1	Action 9: The proponents to specify how they will address the source of dust in the proposal.	Research Proponent	5 February 2016	
10.	03-02-16 Item 1	Action 10: The proponents to state explicitly how they will address uncertainties in the modelling.	Research Proponent	5 February 2016	

Minutes
GISERA Research Advisory Committee Meeting No. 8
Wednesday, 3 February 2016
Via Telephone

OPENING

The meeting of the GISERA Research Advisory Committee was called to order at 4.10 pm on Wednesday, 3 February 2016 via telephone by Damian Barrett, GISERA Director.

PARTICIPANTS

Damian Barrett: GISERA Director (*CSIRO*)
Patrick McKelvey: Manager – Geology & Groundwater Services (*QGC*)
Matt Kernke: Senior Environmental Advisor - Technical, Origin (*APLNG*)
Anne Bridle: Independent (*former Basin Sustainability Alliance*)
Wayne Newton: Grains President (*AgForce*)
Randall Cox: General Manager (*Office of Groundwater Impact Assessment*)
Will Rifkin: Chair in Social Performance (*CCSG and CSR, University of Queensland*)
Nadine Marshall: Senior Social Scientist (*CSIRO*)
Cameron Huddleston-Holmes: Geosciences Team Leader, Energy (*CSIRO*)
Jizelle Khoury: GISERA Executive Officer and Secretariat (*CSIRO*)

Other members:

The following members did not attend the meeting, but provided written advice on the research proposal.

Steve Raine: Professor of Irrigation and Soil Science in Faculty of Engineering and Surveying (*University of Southern Queensland*)

David Freudenberger: Senior Lecturer (*Fenner School of Environment and Society, Australian National University*)

ITEMS FOR DISCUSSION

1 Project Proposal – Assessing ambient air quality in the Surat Basin, Queensland: observations and modeling

The RAC provided the following comments on the research proposal:

Member 14

- This proposal builds on an existing air monitoring program in the Surat Basin. The aim of this proposal is to expand that program and bring under GISERA because of community interest component of the air quality monitoring and measurement.
- There are also two additional activities to take samples and measurements from the Ironbark and Burncluith towers. The first is related to transparency – live streaming of the data on the DEHP ambient air website and freely available to the public.
- Second component is about undertaking a validation study around the particulate matter.

Member 9 (via email)

- Supportive of the proposal.

Member 5 (via email)

- Supportive of the proposal.
- Task 4 – live data streaming is sensible.
- Task 5 – PM10 and PM2.5 – only precautionary comment is the challenges of interpreting such validated data. Separating local from regionally transported particles (e.g. origins of particles) is a large, complex and separate issue. Agree that validation of whether the optical technique produces data equivalent to an Australian Standard Method is worthwhile and doable, but suggest that an output of this research include scoping (but not solving) the challenges of identifying ‘background’ vs industrial sources of these particles.

Member 14

- The purpose of the atmospheric transport modelling work and inverse work that is being done as part of the methane project is to identify the sources of fluxes of trace gases. The air quality modelling that is done here is about looking at the spatial distribution of those air quality parameters. Suspect that will go some way in unravelling differentiation between background, industrial or other sources of these particles.

Member 13

- Overall, looks like a good study - an area of interest related to concerns about possible health impacts in the community, a set of stakeholder organisations involved in defining the parameters, and liaison with complementary studies. The communication of findings needs attention to enhance understanding of streamed data and understanding of report findings.
- Task 5 - Good idea to make such data publicly visible. Would like to hear more about the communication element involved here. Just making data available is not necessarily achieving the desired aim. The audiences need to be able to understand what they are seeing. For example, it might make sense to display comparative data from other places in Queensland or in Australia.
- Liked the complementarity to the methane flux project.
- Task 1 - Would be handy if the proposal included a map showing the areas where CSG production is concentrated and the proposed sites for the monitoring equipment.
- Task 5 – Particulate validation study - good, seems like an important part of the study in relation to impacts on human health.

Member 17

- Impressive proposal.
- Is it worth triangulating data from this project and overlaying with complaints received from community?

Member 14

- This study looks at a quantitative understanding of concentrations and we cannot look at those issues under this project budget.
- As GISERA moves into NSW issues around health have been raised and we will need to look at how to address those issues.
- A study like this could be used to underpin work for a future project on exposure, dose and risk.

Member 22

- The next part of the program is likely to fall outside of GISERA but under The Advanced Queensland Funding Submission. DEHP and CSIRO are teaming up with potentially Origin/APLNG to look at the public health aspect. Using that data into a more quantitative assessment of health impacts.

Member 21

- Would be good to have a context setting as part of this project's final report i.e. what exposure levels are tolerable or unacceptable.

Member 22

- Part of the live data streaming will include an assessment of the results.

Member 3

- Will we be expanding the parameters on the DEHP portal to include the particulates being tested and will it state what the acceptable parameters are to avoid misinterpretation? Do not see radium in the portal.
- Need some education of the community on how to use it. Are there graphs that that can be viewed?
- Good to have a map on where the testing towers are compared other sources. We do need to say where they are compared to ponds and gas plants.
- Is it possible to have testing around some of the ponds? The proximity to ponds is worrying people.

Member 22

- Our current sites are all adjacent to gas land, one is adjacent to a pond, there are some background in north of Tara, another northeast of Chinchilla, around the Hopelands area, around the Miles airport and around the Condamine town. There are 10 VOC sites spread throughout that area (within and outside the gas infrastructure). Part of this program is providing more information about what is in the gas and providing the missing link and speciation.

Member 3

- There may be some compounds being tested that don't lend themselves to an online live data stream. Perhaps we can provide that data on a different timescale (e.g. monthly readings).

Member 22

- We do have the ability to put all data on the website.

Member 19

- Is background dust data going to be separated from the project monitoring? It would be useful to get some commentary how that is going to be addressed.
- If sites need to be upgraded to be made suitable for online streaming would those costs be included in the project?
- Supportive of this proposal.

Member 22

- All sites are currently suitable.

Member 11

- Even if there was no perception of a health issue this would still be a project that well worth doing. To better understand what is in the air and to model what the sources are will help us better focus on the issues.
- Supportive of this proposal.

Member 13

- It's not going to be easy to clearly distinguish the CSG emissions and what isn't because of traffic emissions. Do we count tier 1 vehicles, but not tier 2 etc.

Member 14

- This piece of work will provide a top down view. This work will inform further studies like The Advance Queensland project.

Member 22

- There are some definite tracers for fuel combustion that have been identified. They were used not to differentiate whether a truck was used for CSG activity or agriculture activity, but will identify if there is a substance there and not somewhere else and try to attribute a potential emission.
- May speak to local councils to see if they have done some monitoring to do with their road upgrades and maybe that will feed into an inventory.
- The program currently monitors a broad suite of parameters which are not just associated with CSG, but other tracers that can be associated with other activities such as vehicles. Collectively if the emission looks like it is impacting on health we will see that and can investigate further.

Member 21

- It doesn't mention the uncertainty in the input parameters. Good if the modelling can address where there is uncertainty.

Member 7

- Is an interesting project that could lead to other interesting questions.
- Agree that there will need to be a process of communication and empowering people to understand what they are looking at.
- Maybe have some comparative data with North West Tasmania air.

All RAC members

- Approved the project with the GISERA Director's oversight on recommended changes.

Outcome: The Research Advisory Committee approved the project, subject to the GISERA Director's satisfaction that comments raised will be addressed.

Following the above discussion, it was resolved that:

Action 1: The proponents to incorporate into their reports the challenges of identifying 'background' vs industrial sources of these particles.

Action 2: The proponents to interact where possible with health studies so that the data collected in the air quality study is of use to those future health studies.

Action 3: Reference concentrations be provided and researchers reports to provide context for the findings of this study.

Action 4: The proponent to insert a map of the proposed sampling locations in the project proposal.

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Action 8: The proponents to consider the feasibility of testing of air quality adjacent to holding ponds of produced water and water treatment plants.

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Action 10: The proponents to state explicitly how they will address uncertainties in the modelling.

NEXT MEETING

The next meeting of the Research Advisory Committee is yet to be scheduled. It is anticipated that a meeting will occur once further proposals are established.

ADJOURNMENT

The GISERA Director adjourned the meeting at 4.55 pm.

Minutes submitted by: **The GISERA Secretariat**

Minutes approved by: **The GISERA Director**