

Professor Melissa Haswell, Representative of the PHAA (Public Health Association Australia) Hearing for the Middle Arm Industrial Precinct, April 11, 2024 Darwin

I am Professor Melissa Haswell, Professor of Practice (Environmental Wellbeing) and Honorary Professor (School of Geosciences) at the University of Sydney and Professor (Health, Safety and Environment) at Queensland University of Technology. Today I am representing the Public Health Association of Australia, of which I have been a member for about 30 years. Over the last 12 years, I have been examining and communicating the scientific evidence that has rapidly accumulated in the US about significant harms to human health, the environment and the climate associated with oil and gas development. This now substantial body of research is established and sophisticated in robustly demonstrating the significant direct and indirect risks to health from exposure to gas production, and especially transportation via pipelines and compressor stations, processing, liquification (turning the gas into LNG), loading and shipping.

The Public Health Association is the peak body for public health, with over 2000 members, and the lead voice for the protection of people's health and wellbeing in Australia. We work to ensure that the conditions we live in ensure the health and safety of all Australians across the lifespan.

The PHAA objects to the proposed Middle Arm Industrial Precinct because it threatens Australia's health globally, regionally and locally in multiple ways. Its proposed major goal of becoming a major LNG export hub represents an enormous increase in Australia's already rising fossil fuel production, at a time when urgent greenhouse gas emissions reduction is required to avert a climate and health catastrophe. PHAA is extremely concerned about major regional health impacts resulting from activities to create the proposed gas supply chain, bringing major known health risks from the required extensive shale gas development onshore and substantial expansion of off-shore gas production. The likely impacts of these developments on the physical, mental, social, emotional and spiritual health, particularly on Aboriginal Territorians, are clear and summarised in a report by Haswell, Hegedus and Shearman (2023).<sup>1</sup>

Our submission also presents evidence of Middle Arms' direct threat to the health of Palmerston and Darwin residents, many of whom – especially developing fetuses, children, Aboriginal people and older people - carry increased vulnerability to air pollution and climate change impacts. Specifically, evidence from similar developments around the world provide more than ample evidence of increasing emissions and exposures to volatile organic compounds, sulphur compounds, particulate matter, ground level ozone and many other toxic chemicals. All gas-associated industries proposed for Middle Arm pose substantial risks to the health of the people of Darwin.

The added emissions from transportation, processing and liquefaction of gas to LNG occurring in such close proximity to Darwin's population, is likely to further magnify the local health losses of gas extraction to the NT and substantially increase the climate impacts. As we all know, Darwin and the whole of the NT is at extreme risk of climate impacts on health. Research has clearly shown that emissions from the production and use of gas, especially LNG-derived gas, surpass climate impacts from coal and are vastly more than the whole lifecycle of renewable energies. Relying on carbon capture and storage and offsets is an unacceptable gamble on our future

PHAA, and the 2023 MJA-Lancet Climate and Health report,<sup>2</sup> urges Australian governments to heed recommendation 2 of the Lancet report; stop funding the fossil fuel industry,<sup>3</sup> and reverse support and commitment to the proposed Middle Arm LNG export hub.

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<sup>1</sup> Haswell, M., Hegedus, J., & Shearman, D. (2023). The Risks of Oil And Gas Development For Human Health And Wellbeing: A Synthesis Of Evidence And Implications For Australia.

<sup>2</sup> Beggs, P. J., Trueck, S., Linnenluecke, M. K., Bambrick, H., Capon, A. G., Hanigan, I. C., Arriagada, N. B., Cross, T. J., Friel, S., Green, D., Heenan, M., Jay, O., Kennard, H., Malik, A., McMichael, C., Stevenson, M., Vardoulakis, S., Dang, T. N., Garvey, G., ... Zhang, Y. (2024). The 2023 report of the <sc>MJA</sc> – Lancet Countdown on health and climate change: sustainability needed in Australia's health care sector. *Medical Journal of Australia*, 220(6), 282–303. <https://doi.org/10.5694/mja2.52245>

<sup>3</sup> Blowes, M. (2024, March 24). "Urgent and sustainable" action needed to safeguard health: MJA-Lancet Countdown. University of Sydney. <https://www.sydney.edu.au/news-opinion/news/2024/03/25/-urgent-and-sustainable--action-needed-to-safeguard-health--mja-.html>