



**darebin climate action now**  
alphington - fairfield - northcote - preston - reservoir - thornbury

Submission to the Senate Environment and Communications References Committee's

Inquiry into the Middle Arm Industrial Precinct

October 2023

## Introduction

Darebin Climate Action Now (DCAN) is a local community not-for-profit organisation of City of Darebin residents of diverse ages and backgrounds who are concerned about the climate emergency. We work to educate ourselves and our local community about the causes and impacts of the climate emergency and the required responses, and actively encourage all three levels of government to adopt the policy changes that are now urgently needed to ensure a safe climate future. Over 4,500 DCAN supporters have taken action in support of a stronger Government response to this crisis.

On the basis of the current climate science, DCAN is committed to a rapid but socially just transition to a zero carbon economy and draw-down of the excess greenhouse gases in the atmosphere. Climate science indicates that there is no room for the development of new fossil fuel production.

Our submission is particularly focused on the following Terms of Reference:

*(c) any climate, environmental, health or cultural heritage impacts as a result of developing the harbour and the industries seeking to establish themselves at Middle Arm;*

We also make comment on the following Terms of Reference:

*(b) the likely and intended future uses of the site as well as the industries and supply chains that would benefit from those plans;*

*(d) the conduct, process and implications of the proposed strategic environmental assessment for Middle Arm; and*

*(e) engagement and advocacy by industries and their representatives throughout the Middle Arm proposal, including with First Nations groups and communities adherence to the principles of free, prior and informed consent.*

From our research, we conclude that the Middle Arm Industrial Hub threatens the health, environment, climate and liveability of Darwin and the Northern Territory as a whole, and would accelerate and exacerbate climate change locally and globally at a time when rapid reductions in greenhouse gas emissions are imperative to avoid climate catastrophe. Below we make comment on these three Terms of Reference.

**Terms of Reference (c): *any climate, environmental, health or cultural heritage impacts as a result of developing the harbour and the industries seeking to establish themselves at Middle Arm***

There has been a lack of transparency and considerable misleading information about the development of the Middle Arm Industrial Hub from both levels of government. This is particularly concerning given the range of unacceptable climate, biodiversity, health, social and cultural heritage impacts which it would likely create.

(1) Most significantly for DCAN, it would **accelerate climate change in the Northern Territory and globally**, by enabling the processing and export of fracked gas, the construction of toxic petrochemicals factories utilising that gas, and greenwashing via a carbon capture and storage facility.

Greenhouse gas (GHG) emissions from coal, oil and gas are the largest drivers of climate change globally, and a rapid reduction in fossil fuel production and use is required for the world to avoid climate catastrophe. The development of the Middle Arm Industrial Precinct is intertwined with the development of new gas fields, against the advice of bodies such as the International Energy Agency and IPCC, including:

- the hugely polluting Barossa gasfield which is proposed to “backfill” the Darwin LNG plant. The Barossa development involves an extraordinarily high level of GHG emissions, since the gas contains 18% carbon dioxide by volume. The Institute for Energy Economics and Financial Analysis found that the total emissions from producing 3.7 million tonnes of LNG per year from the Barossa Development will result in 5.4 Mt of CO<sub>2</sub> per year, or 15.4 Mt per year including scope 3 GHG emissions, which is extreme by any standard<sup>1</sup>;
- fracking in the Beetaloo Basin, which could increase Australia’s emissions by up to 22%, generating 1.4 billion tonnes of GHG emissions and threatening Australia’s commitments under the Paris Agreement;
- Inpex’s proposed expansion plans at Middle Arm, including “blue” (ie fossil gas produced) hydrogen and ammonia, and its recent purchase of the Cash, Maple proposed gasfield which could potentially back-fill its Darwin Ichthys facility;
- Eni’s proposed exploitation of its Verus field, whose 27% CO<sub>2</sub> reservoir would make it the most polluting project in Australia.

In addition, petrochemical manufacturing is proposed for Middle Arm, relying on gas as a feedstock for the creation of ammonia, methanol, ethylene, ethane, urea and other gas-based products. As the world moves away from fossil fuels as an energy source, petrochemicals and plastics production is being used to economically justify continued fossil fuel development. This is dangerous for the climate, as every stage of the life cycle involves carbon emissions – not just the energy-intensive process of cracking gas into feedstock.

Overall, the Middle Arm industrial precinct could increase the Northern Territory’s emissions by 15 million tonnes per annum (or 75%). When indirect, cumulative and life cycle emissions are included (including the opening up of the Beetaloo, Barossa and Verus gas fields), the carbon footprint of Middle Arm is likely to be extraordinarily high<sup>2</sup>.

Noting that the Northern Territory is forecast to become uninhabitable due to climate change within two generations, the UN Special Rapporteur on Toxics and Human Rights recently singled out the Middle Arm Industrial Hub as threatening to turn the Northern Territory into a “sacrifice zone for the fossil fuel industry”<sup>3</sup>.

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<sup>1</sup> <https://ieefa.org/articles/ieefa-update-santos-wont-solve-problem-barossa-lng-carbon-capture-and-storage>

<sup>2</sup> [https://www.ecnt.org.au/submission\\_to\\_ntepa\\_on\\_middle\\_arm\\_sustainable\\_development\\_precinct\\_referral](https://www.ecnt.org.au/submission_to_ntepa_on_middle_arm_sustainable_development_precinct_referral)

<sup>3</sup> <https://www.abc.net.au/news/2023-09-14/united-nations-criticism-nt-projects-middle-arm-beetaloo-basin/102856346>

Furthermore, the Middle Arm site itself is likely to be at considerable risk from climate change. It is extremely low-lying, and rises in sea levels and flooding are predicted to regularly inundate the site by as early as 2030<sup>4</sup>.

(2) In terms of the **natural environment**, the dredging of the harbour, building of up to five industrial-scale wharves and jetties, and the construction of a range of factories would require the flattening of 1500 hectares in a biodiversity hotspot located within a site of international conservation significance, destroying precious savanna, rainforest and mangrove and further endangering a number of threatened species. In addition, there is a significant risk of accidental releases of toxins resulting from storm surge, cyclones and climate change-induced sea level rise. These toxic releases would damage the soils and mangrove “conservation areas” on the rest of the peninsula – without the protection of the mangroves, industries will be even more susceptible to the higher storm surges of the future.

(3) In terms of **health** impacts, the Greater Darwin region already faces extremely poor air quality, which will be further deteriorated by the Middle Arm industrial precinct, with significant implications for human health<sup>5</sup>. Modelling by Dr Petroni suggests an increase in industrial fine particulate emissions by 513%, and a four-fold increase in the industrial cancer hazard. For example, populations living within 5km of petrochemical facilities experience a 30% higher risk of developing leukaemia than those without exposure to petrochemical facilities. The proposed Middle Arm industrial precinct is less than 3km away from populated areas of Palmerston. The heightened risk of accidents, and the capacity of the Northern Territory Fire and Rescue Service to respond to these, has already been raised as a significant public health and risk issue<sup>6</sup>.

(4) In terms of **social and cultural heritage impacts**, this development would irreversibly damage the social and cultural fabric of Darwin, transforming a city defined by its harbour and beloved residents and tourists for fishing and recreation into a major industrial city dominated by a skyline of factories.

It would also endanger a precious cultural landscape maintained for many millennia by Larrakia Traditional Owners, including impacting the last remaining petroglyphs in the entire Darwin region. The peninsula is a site of immense cultural significance to the Larrakia people, with a unique pre-invasion archaeological record unparalleled in the Darwin region. The peninsula is the site of the only indigenous rock art to have survived colonisation.

Larrakia leaders have warned that the development of the Middle Arm industrial precinct could lead to “another Jukaan gorge”<sup>7</sup>, and lead to the destruction of important sites. Significant sites are threatened not only by direct clearing for construction, but also by the potential for ecological degradation and pollution as a result of the industrial activities of the precinct. A Larrakia-led and governed cultural values assessment and cultural heritage impact assessment must be undertaken in accordance with their protocols, prior to the release of any further environmental impact assessment documentation.

**Terms of Reference (b): *the likely and intended future uses of the site as well as the industries and supply chains that would benefit from those plans***

DCAN cannot see how the Middle Arm development can be supported on economic or social grounds. The physical and economic limits to agricultural and pastoral development in tropical Australia have been

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<sup>4</sup> [https://coastal.climatecentral.org/map/12/130.9028/-12.5011/?theme=sea\\_level\\_rise&map\\_type=year&basemap=simple&contiguous=true&elevation\\_model=best\\_available&forecast\\_year=2030&pathway=rcp45&percentile=p50&refresh=true&return\\_level=return\\_level\\_1&rl\\_model=gtsr&slr\\_model=kopp\\_2014](https://coastal.climatecentral.org/map/12/130.9028/-12.5011/?theme=sea_level_rise&map_type=year&basemap=simple&contiguous=true&elevation_model=best_available&forecast_year=2030&pathway=rcp45&percentile=p50&refresh=true&return_level=return_level_1&rl_model=gtsr&slr_model=kopp_2014)

<sup>5</sup> [https://www.ecnt.org.au/submission\\_to\\_ntepa\\_on\\_middle\\_arm\\_sustainable\\_development\\_precinct\\_referral](https://www.ecnt.org.au/submission_to_ntepa_on_middle_arm_sustainable_development_precinct_referral)

<sup>6</sup> <https://www.abc.net.au/news/2022-12-13/nt-firefighters-concerned-middle-arm-industrial-precinct-darwin/101763444>

<sup>7</sup> <https://www.theguardian.com/australia-news/2023/may/11/another-juukan-gorge-darwins-middle-arm-hub-threatens-indigenous-rock-art-traditional-owners-say>

recognized by experts for many decades<sup>8</sup>. Planning for the development of northern Australia needs to be based on solid sustainability principles that explicitly acknowledge the scale of damage caused by current development models, including recognition that six of the nine planetary boundaries have already been crossed<sup>9</sup> (Richardson et al. 2023). This recognition demands serious consideration to questions like: What sorts of development are now appropriate? How can our current systems of organising that development be transformed to meet the needs of people and planet?<sup>10</sup> How do we ensure that the fossil fuel industry has no part in it?

**Terms of Reference (d): *the conduct, process and implications of the proposed strategic environmental assessment for Middle Arm; and (e) engagement and advocacy by industries and their representatives throughout the Middle Arm proposal, including with First Nations groups and communities adherence to the principles of free, prior and informed consent.***

The Albanese Government's commitment of \$1.5 billion of public funding for the project was made in the absence of a completed environmental impact assessment, a detailed business case or cost benefit analysis, or a recommendation that the funding be committed by Infrastructure Australia. We note that serious questions have been raised about the economic viability of the project.

Despite public assertions by the Northern Territory Government and a number of federal Ministers that the precinct is "sustainable", and designed primarily for green industries (critical minerals processing, battery production and green hydrogen are frequently mentioned), the project is, and always was, primarily designed to facilitate gas expansion. Among many sources of information that this is the case is this statement by the CEO of fracking company Tamboran to a Senate inquiry (on 10<sup>th</sup> October 2022) that "gas that will be extracted from the Beetaloo will be necessary for a full range of industrial purposes at the Middle Arm Sustainable Development Precinct, near Darwin. This includes ammonia and urea production for fertiliser, hydrogen production, energy-intensive manufacturing, power generation and LNG export". We are aware that Freedom of information documents show that it will be used for dredging the harbour and the construction of up to five jetties and wharves labelled for shipping of LNG, methanol, ethylene, ammonia and "clean petroleum", with the remaining wharf labelled "hydrogen". The federal funding is therefore basically a fossil fuel subsidy which will directly fund the gas industry.

The Federal funding commitment to the Middle Arm industrial precinct was made without consultation with Larrakia families, despite the fact that Larrakia people have been custodians of the Middle Arm peninsula for millennia. A Larrakia-led and governed cultural values assessment and cultural heritage impact assessment must be undertaken in accordance with their protocols, prior to the release of any further environmental impact assessment documentation.

## **Recommendations**

Our research leads us to endorse these overarching recommendations developed by the Environment Centre Northern Territory:

1. **Free, prior and informed consent of Larrakia Traditional Owners** must be obtained for the precinct, whatever the configuration of industries at the site.

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<sup>8</sup> Davidson, B. R. (1965). *The Northern myth. A study of the physical and economic limits to agricultural and pastoral development in tropical Australia*.

<sup>9</sup> Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S.E., Donges, J.F., Drüke, M. et al. "Earth beyond six of nine planetary boundaries." *Science Advances* 9, no. 37 (2023): eadh2458. <https://www.science.org/doi/abs/10.1126/sciadv.adh2458>

<sup>10</sup> Eckersley, R.. "Greening states and societies: from transitions to great transformations." *Environmental Politics* 30, no. 1-2 (2021): 245-265. <https://www.tandfonline.com/doi/abs/10.1080/09644016.2020.1810890>

2. **A Public Inquiry must be established** into the Middle Arm Industrial Hub under the Environment Protection Act and the EPBC Act.
3. **Federal funding must be subject to a condition that it not be used to directly or indirectly fund gas-related industries** at the Middle Arm Industrial Hub (including LNG processing, petrochemical production, blue hydrogen and carbon capture and storage). This includes the funding of infrastructure to enable supply of renewable energy to gas-based industries at Middle Arm.
4. **Gas-related industries must be removed from the scope of the environmental impact assessment** (including LNG processing, petrochemical production, blue hydrogen and carbon capture and storage).
5. **The release of the environmental impact statement for public exhibition must be delayed until the following actions are taken:**
  - a. a Larrakia-led and designed cultural heritage and cultural values assessment is completed, endorsed by the Larrakia people, and incorporated into the EIS;
  - b. the offset methodology for the Middle Arm Industrial Hub is peer-reviewed, released to the public for comment, and an offset plan developed in accordance with that methodology is incorporated into the EIS;
  - c. the air shed modelling methodology is peer-reviewed, released to the public for comment, and an air shed model developed in accordance with that methodology is incorporated into the EIS;
  - d. the climate risk methodology is peer-reviewed, released to the public for comment, and a climate risk assessment developed in accordance with that methodology is incorporated into the EIS;
  - e. the marine impacts methodology is peer-reviewed, released to the public for comment, and a marine impacts assessment developed in accordance with that methodology is incorporated into the EIS;
  - f. the health impact assessment methodology is peer-reviewed, and an impact assessment developed in accordance with that methodology is incorporated into the EIS;
  - g. The cumulative impact assessment methodology is peer-reviewed, released to the public for comment, and a cumulative impact assessment developed in accordance with that methodology is incorporated into the EIS.

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On behalf of DCAN  
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