


NOTICE OF RECOMMENDATION TO MINISTER AND STATEMENT OF REASONS

Section 55 of the *Environment Protection Act 2019* (EP Act)
Regulations 58(1)(d), 63 and 64 of the *Environment Protection Regulations 2020* (EP Regulations)

Name of strategic proposal	Middle Arm Sustainable Development Precinct
Proponent	Department of Infrastructure, Planning and Logistics
NT EPA reference	EP2022/013 Referral accepted 7 March 2022.
Description of strategic proposal	A program for establishing a precinct on Middle Arm Peninsula, Darwin Harbour, as a strategic location for industrial development over 50 years with a focus on low emission petrochemical, renewable hydrogen, carbon capture and storage, mineral processing and advanced manufacturing. Individual proposals within the scope of the strategic assessment would undergo separate assessment and approval processes under the EP Act, subject to approval of the strategic proposal.
Nature of strategic proposal	Strategic Industrial
Recommendation	Strategic assessment is recommended in accordance with section 55 of the EP Act and regulation 58(1)(d) of the EP Regulations The method of environmental impact assessment to be by environmental impact statement in accordance with regulation 59.
Person authorised to make recommendation	Dr Paul Vogel AM – Chairperson, as delegate of the Northern Territory Environment Protection Authority (NT EPA)
Signature	
Date of recommendation	17 August 2022
Matters considered under EP Regulation 56	The NT EPA has considered the following: <ul style="list-style-type: none"> the accepted referral (including the referral form, referral report and appendices; referral program; draft terms of reference; and statement of reasons) submissions made under regulations 52 and 53 in relation to the accepted referral.

Consultation

- Submission period 12 April to 10 June 2022
 - Submissions received:
 - government authority: 7
 - public: 169
 - Submissions identified concerns including:
 - impacts on terrestrial ecosystems from land-based works and reclamation, including mangrove clearing
 - impacts to marine water quality and ecosystems from industrial discharges, vessel traffic, dredging and dredge spoil disposal
 - air quality impacts and greenhouse gas emissions from industry
 - human health impacts from establishment of hazardous facilities near residential areas
 - impacts on Darwin Harbour amenity
 - the need for transparency in project-level decision making
 - that the assessment method should be by inquiry.
 - The NT EPA consulted with the Minister on a proposed recommendation for strategic assessment by EIS method in accordance with regulation 61, and considered her views.
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Statement of Reasons

Overview

The NT EPA considers that the strategic proposal has the potential to have a significant impact on environmental values associated with 12 environmental factors¹.

Land

- **Terrestrial environmental quality** – soil quality and vegetation may be significantly impacted over a large area through: vegetation clearing and hardstand construction; erosion and sedimentation; leaks of hazardous materials; fallout of particulate contaminants; toxic gaseous emissions etc.
- **Terrestrial ecosystems** – threatened species, and sensitive and significant vegetation, may be impacted directly or indirectly by vegetation clearing, habitat disturbance and reclamation of intertidal areas. There is a high level of uncertainty regarding the significance of potential impacts due to the preliminary nature of referral information.

Water

- **Hydrological processes** – Direct disturbance from land clearing and development of the site will result in alteration of surface water and ground water regimes and may impact freshwater discharge into Darwin Harbour.
- **Inland water environmental quality** - Direct disturbance from land clearing, and construction and operation of industry on the site, may result in impacts on groundwater and surface water quality from sediment and contaminants. The nature of potential contaminants and significance of potential impacts are uncertain.

¹ [NT EPA Environmental factors and objectives](#)

Sea

- **Coastal processes** – the construction of revetments, shipping channels and turnaround basins, wharf structures as well as the clearing and infilling of inlets and mangrove communities may significantly alter the hydrodynamics of the Elizabeth River and Darwin Harbour and change coastal processes.
- **Marine environmental quality** – the potential for the sensitive and high-quality values of the marine environment of Darwin Harbour to be significantly impacted by construction and operation of heavy industry over the long life of the proposal, including but not limited to impacts on marine water quality from dredging and dredge spoil disposal, contaminated stormwater runoff, reduced freshwater inputs, waste water discharges, etc. Cumulative impacts from a developing precinct and from existing and future development in Darwin Harbour could be significant. The magnitude and extent of impacts from specific developments and acceptability of mitigation measures are uncertain.
- **Marine ecosystems** – marine ecosystems may be significantly impacted by disturbance of threatened species, recreationally or commercially significant species or marine habitats during development and operation of the proposal. The magnitude and extent of impacts from specific developments and cumulatively in Darwin Harbour, and acceptability of mitigation measures, is uncertain.

Air

- **Air quality** – the types of industries proposed for the precinct have the potential to emit air pollutants such as nitrogen oxides, sulphur oxides, volatile organic compounds, particulates, etc. While emissions control options are available, there is uncertainty around the nature of industries and the emissions characteristics, as well as the controls that would be implemented. There is also uncertainty around the capacity of the Darwin regional air shed to accommodate air pollutants from the precinct in addition to growing regional emissions so that significant impacts to health and wellbeing do not occur.
- **Atmospheric processes** – the types of industries that are proposed include greenhouse gas emissions intensive industry. While there is the potential for use of renewable power and carbon capture and storage, the degree to which greenhouse gas emissions could be avoided, sequestered or managed is unknown and there is the potential for high emission volumes, particularly in the initial stages of development. Such greenhouse gas emissions have the potential to have a significant impact on the environment and the ability to meet the NT EPA's environmental objective for atmospheric processes and the NT Government's net zero emissions by 2050 target.

People

- **Community and economy** – the proposed action has the potential to significantly impact communities, including Aboriginal communities, within its area of influence, both adversely and beneficially.
- **Culture and heritage** – Cultural and historical heritage may be impacted during construction of the proposed action. The significance of impacts is uncertain.
- **Human health** – the potential for significant adverse impacts to human health from the proposed action is unknown with the industry types proposed potentially emitting hazardous substances through air emissions, liquid waste discharges and solid waste streams. Controls and mitigation measures are uncertain.

The NT EPA considered other environmental factors during its consideration of the referral; however, the impact on those factors was not considered to be significant.

Justification

A strategic assessment by environmental impact statement is recommended having regard to:

- Regulation 59 (a) the significance of the potential impact of the strategic proposal as described above.
- Regulation 59 (b) the need to improve the NT EPA's level of confidence in predicting potential significant impacts of the strategic proposal taking into account the extent and currency of existing knowledge, particularly in relation to the:
- the significance of potential impacts to marine and terrestrial environments, including intertidal areas, water quality and biota
 - the significance of potential impacts to threatened and important terrestrial and marine species and habitats
 - the significance of potential impacts from air and greenhouse gas emissions on air quality and atmospheric processes
 - the significance of potential cumulative impacts from the strategic proposal as a whole over its life and in the context of existing and other proposed developments in the region
 - the potential for significant impacts to people.
- Regulation 59 (c) the need to develop measures to avoid, mitigate or manage potential significant impacts, and increase the NT EPA's confidence in the effectiveness of the proposed measures.
- Regulation 59 (d) the limited opportunity to consult with stakeholders on the specifics of the industry types proposed to be developed at the precinct and potential impacts to the environment posed by the strategic proposal. The EIS process provides for a series of stakeholder engagement and public participation opportunities that can inform the strategic assessment.
- Regulation 59 (e) the communities and individuals likely to be affected have been able to access some limited information about the strategic proposal and its potential significant impacts. Substantial further consultation is required to improve the communities' understanding of the proposal, governance arrangements and transparency around assessment and approval processes for industrial development. The EIS process provides for further opportunities to extend detailed information about the strategic proposal through stakeholder engagement and to promote public participation.

Conclusion

The NT EPA is supportive of a strategic assessment, in principle, however there is the potential for significant impacts on 12 environmental factors and environmental impact assessment by EIS is recommended. The EIS process is considered an appropriate method to resolve the high level of uncertainty regarding the proposal including the industries proposed for the precinct and their potential impacts, both individually and cumulatively, on the environment of Middle Arm Peninsula, Darwin Harbour and regionally, and on the communities of the Darwin region. The EIS process will help to inform the Darwin regional community of the detailed strategic proposal and to encourage public participation in the strategic assessment. Governance of the precinct and the assessment and approval processes for individual projects will require careful consideration, and mitigation measures for impacts on

environmental factors are, at this stage in the assessment process, high level and require further development during preparation of the EIS.

In making its recommendation to the Minister under EP Regulation 58, the NT EPA has considered:

- the objects of the Act in section 3 of the EP Act
- the purpose of the environmental impact assessment process in section 42 of the EP Act
- the definition of impact, including indirect impact, in Section 10(1)(b) of the EP Act
- the matters under regulation 56 of the EP Regulations
- the matters relevant to a consideration of the method of environmental impact assessment in regulation 59 of the EP Regulations
- the views of the Minister for Environment, Climate Change and Water Security under regulation 61 of the EP Regulations.