

Environmental Protection Act 1986

Section 39A(7)

PUBLIC ADVICE

Proposal: Port of Broome Channel Optimisation Project

Proponent: Kimberley Ports Authority

Decision: **Not Assessed – Public Advice Given**

The EPA considers that the proposal is unlikely to have a significant impact on the environment and does not warrant formal assessment.

Background

On 13 February 2018, the Kimberley Ports Authority (KPA) referred the Port of Broome Channel Optimisation Project to the Environmental Protection Authority (EPA) under section 38 of the *Environmental Protection Act 1986* (EP Act). KPA is seeking to improve accessibility to the Port of Broome, situated in West Roebuck Bay, approximately 5 kilometres south west of the township of Broome. Larger vessels entering the Port, such as cruise ships, have limited access windows due to the large tidal range (10m), presence of channel rock and high spots in the access channel.

In recognition of the access constraints and the growing tourism industry in Broome, the Department of Primary Industries and Regional Development, Tourism Western Australia and KPA have contributed funds to optimise the channel to allow passage of larger vessels. The Project includes capital dredging of several high spots, a new marked entrance channel and improved access to existing berths.

Capital dredging of 102 500 m³ (inclusive of the over-dredge volume) of marine sediments from five discrete areas is proposed. A spreader pontoon will be used to control placement of dredged material into the naturally deep channel adjacent to Channel Rock, entirely within Port waters. Offshore placement was prioritised to the onshore placement alternatives, due to the shorter pumping distance requirements but also to minimise interactions with marine fauna, heritage sites, the Ramsar wetland and Yawuru Nagulagun/Roebuck Bay Marine Park. The Project is expected to take place over a 2–4 week period.

The proposal was advertised for public comment and the EPA notes that 4 public comments were received. Key issues raised in the public submissions included: potential impacts to the values of Roebuck Bay; potential for dredge spoil to cycle

through Roebuck Bay; potential impacts from increased shipping into the Port; potential impacts to nearby pearling resources; and the potential for sand transport.

At the time of referral, the EPA considered that it did not have enough information regarding the potential impacts of the proposal to make a decision as to whether or not to assess the proposal, and if so the level of assessment. Since March 2018 the EPA has consulted with the proponent to address issues raised by the EPA Services, the Department of Biodiversity, Conservation and Attractions (DBCA) and public comments. This has resulted in the submission of a Draft Dredging Environmental Management Plan (May 2018) to the satisfaction of the EPA.

Relevant Statutory and Administrative Provisions

The EPA has considered the proposal in accordance with the requirements of the EP Act and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* and *Procedures Manual*.

Materials considered in making this decision

The EPA has considered and had regard to the referral information, which is available on the EPA's consultation hub, any comments received during the 7 day comment period, information conducted through its own inquiries and any further information requested from the proponent and government agencies.

Consideration

In making its decision on whether to assess the proposal, the EPA had regard to various matters, including the following (as outlined in the EPA's *Statement of Environmental Principles, Factors and Objectives*):

- a) values, sensitivity and quality of the environment which is likely to be impacted
- b) extent (intensity, duration, magnitude and geographic footprint) of the likely impacts
- c) consequence of the likely impacts (or change)
- d) resilience of the environment to cope with the impacts or change
- e) cumulative impact with other projects
- f) connections and interactions between parts of the environment to inform a holistic view of impacts to the whole environment
- g) level of confidence in the prediction of impacts and the success of proposed mitigation
- h) public information that informs the EPA's consideration of the likely effect of the proposal, if implemented, on the environment

In considering the potential direct and indirect impacts of the proposal on the Benthic Communities and Habitat; Marine Environmental Quality; Marine Fauna; and Social Surroundings, the EPA has had particular regard to:

- The high environmental values of the environment at Roebuck Bay but the relatively small scale of the dredging impacts in the Port waters, including the volume of dredge material (102 500m³) and the duration of dredging operations (2-4 weeks).
- The results of technical studies undertaken by the proponent to determine the extent and consequences of the proposal to Benthic Communities and Habitat and Marine Environmental Quality, including hydrodynamic and plume modelling. Material to be dredged is considered suitable for ocean disposal. Plume modelling indicated that dredge and disposal activities will generate a turbid plume that is restricted in both space and time and disturbance is not predicted to be significantly greater than those that occur under natural conditions associated with extreme weather events.
- The monitoring and management measures proposed in the Dredging Environmental Management Program (May 2018) including:
 - GPS tracking system on the dredge to monitor its position;
 - In-water plume monitoring, visual plume observations and a plume tracking survey to ensure that the dredge plume is within modelled predictions;
 - Additional ground truthing of benthic communities and habitat;
 - Waste and refuelling management;
 - Compliance with International Maritime Organisation International Convention for the Prevention of Pollution from Ships;
 - A suitably trained Marine Fauna Observer on location during dredging and disposal activities. Training for all vessel operators to minimise the risk of marine fauna interactions during mobilisation and construction activities;
 - Implementation of noise reduction actions;
 - Marine Fauna Exclusion Zone and reporting process in consultation with the DBCA;
 - Continued consultation with the Nyamba Yawuru management team, the Department of Planning, Lands and Heritage and the Western Australian Museum;
 - Water quality monitoring and consultation to ensure that nearby pearling leases are not affected;
 - Contingency measures; and
 - Development and maintenance of a public complaints register.
- Timing of dredging is proposed to occur prior to cyclone and turtle nesting season and after whale migration;

- The consultation undertaken by the proponent with relevant decision-making authorities and stakeholders, including the Roebuck Bay Working Group, Environs Kimberley, the Pearl Producers Association, traditional owners Nyambu Buru Yawuru and the DBCA. A response to all comments received during the 7 day public comment period was provided to the EPA and the proponent facilitated a stakeholder presentation session in April 2018 with a number of stakeholders; and
- The presence of other statutory processes, including the *Environment Protection (Sea Dumping) Act 1981* and the *Aboriginal Heritage Act 1972*.

In summary, although the proposal raises a number of environmental issues, the EPA considers that its objectives for Benthic Communities and Habitat; Marine Environmental Quality; Marine Fauna; and Social Surroundings can be met.

This is primarily on the basis that the predicted extent and consequences of the proposal impacts are minor, as the proposal is small in scale and duration. As a result, the EPA considers that the likely environmental effects of the proposal are not so significant as to warrant formal assessment. The EPA is of the view that the potential impacts can be adequately managed through the implementation of the proposal in accordance with the referral documentation, which includes the proponent's management and mitigation measures in its Dredging Environmental Management Plan (May 2018).

1. Environmental Factors

The EPA has identified the following environmental factors relevant to this proposal:

- a) Benthic Communities and Habitat
- b) Marine Environmental Quality
- c) Marine Fauna
- d) Social Surroundings

There were no factors that were determined to be key environmental factors that would require formal assessment under Part IV of the EP Act. The EPA considers that the mitigation of the potential effects on the environment can be regulated by other statutory decision-making processes and through the implementation of proponent commitments and best practice measures in accordance with this advice.

2. Advice and Recommendations regarding Environmental Issues

The Project has been referred to the Department of Environment and Energy (DoEE) for approval under the *Environment Protection and Biodiversity Conservation Act 1999* and an application submitted for a sea dumping permit under the *Environment Protection (Sea Dumping) Act 1981*. To view the referral EPBC 2018/8162 visit www.environment.gov.au.

a) Benthic Communities and Habitat

The benthic habitats surrounding the Port jetty are characterised by bare sand and rocky rubble reef with sparse epifaunal filter feeders. The EPA supports the proponent's commitment to undertake ground-truthing of benthic communities and habitat during detailed design work for the project to further validate the habitat assessment of dominant substrates. The EPA notes that the proponent has committed to update the Dredging Environmental Management Plan and consult with the DoEE and DWER should the assessment of dominant benthic communities and habitat differ from the original assessment.

The proponent has committed to in-water plume monitoring, visual plume observations and a plume tracking survey to ensure that the dredge plume is within modelled predictions.

Given the small scale and short duration of the dredging program and the extent to which the proponent has sought to avoid, and then minimise the level of impact to the surrounding environment, the EPA considers that the proposal, as implemented consistent with the *Port of Broome Channel Optimisation Project – Dredging Environmental Management Plan (Revision 1, May 2018)*, is not likely to have a significant impact on the environmental factor of Benthic Communities and Habitat.

b) Marine Environmental Quality

Turbidity monitored at four sites adjacent to the Port was generally high, with average concentrations of total suspended solids ranging from 15.7–24.8 mg/L during the wet season and 8.8–15.2 mg/L during the dry season, over the four tidal cycles.

The EPA notes that water column turbidity and potential indirect impacts to benthic communities and habitat adjacent to the Port will be monitored and managed prior to, during and after dredging and disposal works as described in the Dredging Environmental Management Plan.

Given the small scale and duration of the dredging program, the results from the hydrodynamic and plume modelling and further proposed monitoring and management of marine environmental quality, the EPA considers that the proposal, as implemented consistent with the *Port of Broome Channel Optimisation Project – Dredging Environmental Management Plan (Revision 1, May 2018)*, is not likely to have a significant impact on the environmental factor of Marine Environmental Quality.

c) Marine Fauna

The marine waters adjacent to the Port support a variety of fauna, several of which are significant and protected under the *Wildlife Conservation Act 1950* and Commonwealth *Environmental Protection Biodiversity Conservation Act 1999*.

The EPA notes that marine fauna monitoring will be undertaken during dredging by a suitably experienced Marine Fauna Observer. The EPA recommends that the Marine Fauna Observer is independent from the dredging crew.

Prior to the commencement of dredging, vessel operators will also be required to undergo an induction to minimise the risk of marine fauna interactions during mobilisation and construction activities. The EPA supports the proponent's management commitments should marine fauna enter an agreed exclusion zone including to:

- Cease dredging until disposal/dredge methods can be modified to reduce marine fauna impacts to an acceptable level; and
- Notify and consult with appropriate regulators (DBCA).

The EPA also notes that the threat of impacts from introduced marine pests will be managed in accordance with actions outlined in the Dredging Environmental Management Plan. The EPA recognises that the proponent is part of a State-Wide Array Surveillance Program, in partnership with the Department of Primary Industries and Regional Development which aims to provide an early warning for the presence of invasive marine species.

Given the proposed timing of dredging activity to avoid and minimise impacts to key marine fauna species, and the proponents commitments to monitor and manage any potential impacts to marine fauna, the EPA considers that the proposal, as implemented consistent with the *Port of Broome Channel Optimisation Project – Dredging Environmental Management Plan (Revision 1, May 2018)*, is not likely to have a significant impact on the environmental factor of Marine Fauna.

d) Social Surroundings

Roebuck Bay is of cultural significance to the Yawuru traditional owners. The EPA supports the proponent's continued consultation with the Nyamba Buru Yawuru management team and the Department of Planning, Lands and Heritage to ensure heritage sites, seascapes, the enjoyment of country and customary practices are identified and preserved.

The EPA supports the management measures outlined in the Dredging Environmental Management Plan which would be implemented should there be any indication of disturbance to an indigenous/non-indigenous artefact.

The EPA notes that the surrounding environment is also important for supporting commercial fishing and aquaculture operations; with pearling one of the largest industries in Broome. The EPA notes that based on hydrodynamic and plume modelling, nearby pearling leases are not anticipated to be affected by the proposal. The EPA supports monitoring and consultation with the lease holders to manage any potential concerns associated with the proposal.

Given the small scale and duration of the dredging program, the results from the hydrodynamic and plume modelling and further proposed monitoring and management of social surroundings, the EPA considers that the proposal, as implemented consistent with the *Port of Broome Channel Optimisation Project – Dredging Environmental Management Plan (Revision 1, May 2018)*, is not likely to have a significant impact on the environmental factor of Social Surroundings.