Environment Assessment Branch
Department of the Environment Sustainability, Environment, Water, Population and Communities
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Dear Sir/Madam,

Re: EPBC reference number 2015/7510, *Ezion Offshore Logistics Hub (Tiwi) Pty Ltd/Transport - water/Port Melville Marine Supply Base, Melville Island/NT/Operation of a marine supply base.*

Thank you for the opportunity to contribute to the referral of Port Melville Marine Supply Base for assessment under the EPBC Act. The Australian Marine Conservation Society (AMCS) would like to submit the attached document.

AMCS is Australia's leading national ocean charity and has been defending our unique marine environments for 50 years. AMCS has over 200,000 supporters in Australia and has been actively involved in protecting North Australia's marine environment for over a decade. Northern Australia's marine environment represent some of the last relatively pristine waters on the planet.

Therefore, AMCS strongly recommends that the proposal to operate Port Melville as a marine supply base on Melville Island in the Northern Territory is subject to the highest level of environmental assessment, by undertaking a full Environmental Impact Assessment (EIA).

Yours sincerely,

Jacqueline Taylor
Northern Marine Campaigner
Australian Marine Conservation Society

Re: EPBC reference number 2015/7510, *Ezion Offshore Logistics Hub (Tiwi) Pty Ltd/Transport - water/Port Melville Marine Supply Base, Melville Island/NT/Operation of a marine supply base.*

The Australian Marine Conservation Society (AMCS) welcomes the opportunity to comment on the referral of Port Melville for assessment under the EPBC Act.

The health and biodiversity of the world's oceans are experiencing significant decline at a global scale due to a wide range of anthropogenic impacts, such as exploitation of marine species, habitat degradation, bycatch associated with some fishing activities (e.g. gillnets, purse-seine), pollution from terrestrial environments and coastal catchment areas, global climate change and ocean acidification, noise pollution, increasing vessel traffic, tourism, habitat loss, aquaculture, sea-bed mining, and the spread of pest species and disease (Halpern *et al.* 2007; Halpern *et al.* 2008; Jefferson *et al.* 2009; Pauly and Watson, 2005; Woinarski *et al.* 2014). These impacts present with more intensity in coastal waters due to the proximity of coastal human populations (Lotze *et al.* 2006).

The waters of norther Australia are exceptional and are considered near pristine (Munksgaard and Parry 2001, 2002) due to the lack of coastal development and limited exploitation of marine resources (Bejder *et al.* 2012; Palmer *et al.* 2014). These northern Australian coastal conditions provide an excellent opportunity for conservation of coastal biodiversity both at national and international levels.

AMCS strongly recommends that the proposal to operate Port Melville as a marine supply base on Melville Island in the Northern Territory is subject to the highest level of environmental assessment, by undertaking a full Environmental Impact Assessment (EIA).

Such an assessment would allow for a comprehensive review of Matters of National Environmental Significance (MNES), and assess all the following important environmental issues that are currently triggered by the proposed project:

- Listed threatened species and communities (under section 18 and 18a of the EPBC Act);
- Listed migratory species (under Sections 20 and 20A of the EPBC Act); and
- The proximity of Garig Gunak Barlu National Park.

Impacts to listed threatened species

Port Melville is located on the Aspley Straight, between two ecologically significant Islands, with 38 threatened species of flora and fauna. The region is highly vulnerable to cyclonic weather conditions and strong tidal currents pass between the relatively narrow channel and around the islands. Such conditions will require expert shipping knowledge and piloting. The impacts of increases in ship size, mass and frequency on threatened species and the marine and coastal environment has not been adequately assessed in this referral under such environmental conditions.

Just 16km north of the Port on Melville Island is one of the most globally significant nesting sites in south-east Asia-western Pacific region for the endangered olive ridley turtles (Chatto and Baker, 2008). The same location is also an important nesting site for green and flatback turtles although these species are not well-studied (Chatto and Baker, 2008; Whiting, 2008). The presence of such nesting species makes the Tiwi Islands internationally significant. However, population estimates for marine turtle species around the Tiwi Islands have not yet been determined.

Impacts to marine turtles in the Northern Territory are not well-quantified although ghost nets and predation are considered to have a significant impact on the population. It is therefore possible that these populations are in decline.

Impacts to marine mammals have not been assessed in this referral, despite the waters of the Tiwi Islands including the Aspley Strait being home to a range of listed marine mammal species including Australian snubfin, Australian humpback and bottlenose dolphins, the false killer whale and dugong (Palmer *et al.* 2014; Palmer *et al.* 2009). All four species have small populations, slow reproductive rates and are long-lived which makes them particularly vulnerable to a range of coastal and marine impacts (Allen *et al.* 2012; Bejder *et al.* 2012; Palmer *et al* 2014). All four species are listed marine and migratory species under the EPBC Act.

There are five breeding colonies of seabirds located on small offshore islands including internationally significant populations of crested terns (Chatto 2001; Dutson 2006), which is believed to be the world's largest breeding colony of this species. Three colonies of little tern, considered nationally significant, are also recorded in this location (Chatto 2001). The impacts of this development on seabird populations have not been adequately assessed in this referral.

Given the delicate nature of the coastal marine environments around the Tiwi Islands and the risks of this development to listed marine turtles, marine mammal and seabirds, it is vital that an assessment of the full range of risks, potential impacts, planned mitigation measures and how best to undertake relevant monitoring for these protected species is undertaken.

Risks posed by operation of the new port

The operation of the port poses potential risks to listed species, through:

- Increased potential for vessel strike on marine threatened and migratory species, due to a 20% increase in shipping during 2015 -2019 by vessels up to 200 m in length;
- Increased pollution and reduced water quality as a result of poorly managed runoff, spills associated with the inadequate bund walls and on site storage of 30.795 million litres of diesel, fracking chemicals, soil fumigants and pesticides (friction reducers, stabilizers, surfactants; corrosion inhibitors, and biocides such as glutaraldehyde, dibromo, and nitrilopropionamide).
- Impacts of additional lighting on nesting endangered sea turtles at nationally significant turtle rookery;
- Increased road traffic, spread of weeds, light and noise at the site has a potential to impact the vulnerable Tiwi Masked Owl and the vulnerable Brush-Tailed Rabbit Rat, both listed under the EPBC Act, which are also recorded in the area;
- Impact of potential oil spills due to large-scale (200m) ships carrying high volumes of diesel with the narrow channel;
- Impact of future dredging to broaden the shipping channel and dumping of dredge spoil in nearby waters to facilitate access of large ships;
- Impact of the cumulative risks have not been identified in this referral.

There is insufficient information provided in this referral to determine the level of impact to these Matters of National Environmental Significance (MNES). In the Commonwealth assessment framework, the unquantified risk to listed threatened and marine species presented is not acceptable. Additional applied studies that would form part of an EIA such as hydrological and light modelling, benthic habitat assessment, water quality and marine megafauna monitoring would allow for an informed, risk-based approach to the assessment.

In addition, Australia is party to the United Nations Convention on Biological Diversity (UNCBD). Under the UNCBD the Precautionary Principle must be applied where insufficient scientific information is available regarding a posed risk to the environment.

AMCS strongly recommends that the port development be classed as a controlled action under the EPBC Act due to its impacts on MNES and should be subject to a full EIA prior to its operation.

It is only through the preparation of the highest level of assessment, namely an EIA, that important environmental impacts can be assessed and provide the opportunity to put strong conditions on any operation of the port, should it proceed.

REFERENCES

Allen SJ, Cagnazzi DDB, Hodgson AJ, Loneragan N R, Bejder L. (2012). Tropical inshore dolphins of north-western Australia: Unknown populations in a rapidly changing region. Pacific Conservation Biology 18: 56-63.

Bejder L, Hodgson AJ, Loneragan NR, Allen SJ. (2012). Coastal dolphins in north-western Australia: The need for re-evaluation of species listings and short-comings in the Environmental Impact Assessment process. Pacific Conservation Biology 18: 22-25.

Chatto, R. (2001). The distribution and status of colonial breeding seabirds in the Northern Territory. Technical Report 70, Parks and Wildlife Commission of the Northern Territory, Darwin. 206pp

Chatto, R. and Baker, B. (2008). The distribution and status of marine turtle nesting in the Northern Territory. Technical Report 77. Parks and Wildlife Service, Northern Territory Department of Natural Resources, Environment & the Arts, Darwin.

Dutson, G. (2006). Crested Terns at Seagull Island, Tiwis, NT. Unpublished report.

Halpern BS, Selkoe KA, Micheli F, Kappel CV. (2007). Evaluating and Ranking the Vulnerability of Global Marine Ecosystems to Anthropogenic Threats. Conservation Biology 21: 1301-1315.

Halpern BS, Walbridge S, Selkoe KA, Kappel CV, Micheli F, D'Agrosa CD, Bruno JF, Casey KS, Ebert C, Fox HE, Funita R, Heinemann D, Lenihan HS, Madin EMP, Perry MT, Selig ER, Spalding M, Steneck R, Watson R. (2008). A global map of human impact on marine ecosystems. Science 319, 948–952.

Jefferson TA, Hung SK, Würsig B. (2009). Protecting small cetaceans from coastal development: Impact assessment and mitigation experience in Hong Kong. Marine Policy 33: 305-311.

Lotze HK, Lenihan HS, Bourque BJ, Bradbury RH, Cooke RG, Kay MC, Kidwell SM, Kirby MX, Peterson CH, Jackson JBC. (2006). Depletion, degradation, and recovery potential of estuaries and coastal seas. Science 312: 1806-1809.

Munksgaard NC, Parry DL. (2001). Trace metals, arsenic and lead isotopes in dissolved and particulate phases of North Australian coastal and estuarine seawater. Marine Chemistry 75: 165-184.

Munksgaard NC, Parry DL. (2002). Metals, arsenic and lead isotopes in near-pristine estuarine and marine coastal sediments from northern Australia. Marine and Freshwater Research 53: 719-729.

Palmer C, Parra GJ, Rogers T, Woinarski J. (2014). Collation and review of sightings and distribution of three coastal dolphin species in waters of the Northern Territory, Australia. Pacific Conservation Biology 20: 116-125.

Palmer C, Fitzgerald P, Wood A, Harley S, McKenzie A. (2009). False Killer Whales Pseudorca crassidens: regular visitors to Port Essington and Darwin Harbour in the Northern Territory, Australia. Northern Territory Naturalist 21: 49-53.

Pauly D, Watson R. (2005). Background and interpretation of the —Marine Trophic Index as a measure of biodiversity. Philosophical Transactions of the Royal.

Whiting S, Guinea M, Limpus C, Fomiatti K, (2007). Blood chemistry reference values for two ecologically distinct population of foraging green turtles, eastern Indian Ocean. Comparative Clinical Pathology 16, 109– 118.

Woinarski JCZ, Burbidge AA, Harrison PL. (2014). The Action Plan for Australian Mammals 2012. CSIRO Publishing: Melbourne