

**10 February 2026**

Northern Territory Environment Protection Authority  
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By email: [eia.ntepa@nt.gov.au](mailto:eia.ntepa@nt.gov.au)

### **Submission: Ichthys Carbon Capture and Storage (CCS) Project**

BirdLife Top End welcome the opportunity to provide comments on the referral for "Ichthys Carbon Capture and Storage (CCS) Project" published on 12 January 2026.

This submission is made with reference to the potential risks and impacts of the project to the environmental factors and objectives established in the NT Environmental Protection Act 2019 (The Act)

We refer to the following documents:

- a. A referral form;
- d. EPBC Act Protected Matters Report;
- e. The Project Proponent's Likelihood of Occurrence Assessment; and,
- f. Stakeholder engagement plan; and,
- d. Pre-referral consultation report (together, the Referral).

### **Recommendation Summary**

BirdLife Top End considers that the information provided by the proponent is insufficient to demonstrate that the Ichthys CCS Project can be undertaken without unacceptable environmental risks. In particular, the referral does not adequately assess impacts on critical habitat in Darwin Harbour for Nationally Significant migratory shorebird species listed under the TPWC and EPBC Act. Furthermore, the referral does not appropriately characterise or manage the risks associated with large-scale CO<sub>2</sub> transport and venting in close proximity to sensitive intertidal ecosystems.

We submit that:

- critical migratory shorebird habitat has been misidentified or overlooked;
- disturbance, habitat degradation, and cumulative impacts have been underestimated;
- key risks associated with CO<sub>2</sub> leakage, rupture, and venting have not been adequately assessed; and
- stakeholder engagement has been inadequate, undermining the reliability of the environmental assessment.

BirdLife Top End recommends that as the pursuant to s S 55(5)(b) of the *Northern Territory Environment Act 2019 (the Act)*, the NT EPA should determine that the proposed action is unacceptable because it is likely to have significant impacts that cannot be appropriately avoided, mitigated or managed. Failing this, S 55(5)(a) of The Act, the NT EPA should determine that a comprehensive environmental impact assessment is required for the referred action or strategic proposal to ensure a more rigorous level of assessment, supported by comprehensive baseline data, independent analysis, and a precautionary approach to decision-making.

## Introduction

### About BirdLife Top End

BirdLife Top End is a volunteer branch of BirdLife Australia, an independent, non-partisan grassroots charity dedicated to the conservation of Australia's native birds and their habitats. BirdLife Australia is the national partner of BirdLife International, the world's largest conservation partnership, and has played a central role in monitoring and safeguarding Australia's birdlife. This work includes major long-term threatened species programs and collaborative projects with communities, Traditional Owners, government and industry.

BirdLife Australia is comprised of a nationwide community of more 30 branches, over 400,000 supporters and thousands of volunteers and citizen scientists. The Top End branch contributes to a legacy of almost 120 years of bird conservation, scientific research, advocacy, education and on-ground habitat protection. Within this broader network, BirdLife Top End provides the focal point for community-led bird conservation in the Northern Territory's 'Top End.' The branch is entirely volunteer-run and operates in alignment with BirdLife Australia's core mission and values: to make a real and positive difference for Australia's birds.

Our region spans from the Barkly Tablelands to the northern tip of the continent, including the Tiwi Islands, Groote Eylandt, and all other offshore islands. Volunteers and members across the Top End lead and support a wide range of activities: bird research and long-term monitoring programs; community capacity-building initiatives; advocacy for species and habitats under threat; and public engagement through education and outreach. This grassroots effort forms an integral part of BirdLife Australia's national conservation work and helps protect the unique birdlife of northern Australia.

### The Special Importance of the Darwin Harbour for Migratory Shorebirds

Darwin Harbour, located on Larrakia Country, is one of the region's most important natural environments. It borders the cities of Darwin and Palmerston, home to most of the Northern Territory's population and the site of the Territory's highest concentration of industry and commercial activity. The harbour is connected globally not only through trade and transport, but also through the migratory species that rely on it. Among these are remarkable shorebirds that travel annually along the East Asian–Australasian Flyway between Darwin and distant breeding sites across the Russian tundra, Mongolia, northern China, and Alaska; an extraordinary round trip of up to 25,000 kilometres.

For some species, Darwin Harbour serves as a key destination, while for others it functions as an essential stopover point. Because shorebirds can act as indicators of environmental health<sup>1</sup>, understanding how they use the harbour is vital to ensuring it remains ecologically sustainable for these species and for the broader marine and intertidal ecosystem<sup>2</sup>. Major pressures on migratory

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<sup>1</sup> See for example, Drever, M.C., Mogle, M.J., Douglas, T.J. *et al.* Shorebird Abundance is Associated with Nutritional Quality of Intertidal Biofilm on the Fraser River Estuary. *Estuaries and Coasts* **47**, 519–534 (2024). <https://doi.org/10.1007/s12237-023-01280-0>

<sup>2</sup> Lilleyman, A., & O'Brien, G. (2024). *Darwin Harbour migratory shorebird site action plan*. BirdLife Australia

shorebirds in Darwin Harbour include human disturbance, habitat alteration, and ongoing coastal development<sup>3</sup>.

Darwin Harbour provides habitat for shorebird populations of international significance, with several locations also recognised as nationally significant due to the abundance and diversity of species present. At low tide, migratory shorebirds are spread across the harbour's intertidal flats, while at high tide they gather at specific roosting sites.

The harbour, like other coastal areas across northern Australia, functions as a crucial stepping stone for birds travelling to non-breeding sites farther south<sup>4</sup>. Some individuals remain in the Darwin region throughout the non-breeding season, while others use the area to build energy reserves before continuing south or east. Darwin Harbour (NT029 Port Darwin) is one of 332 important migratory shorebird sites identified in the recently released Australian National Directory of Important Migratory Shorebird Habitat (2025) designated as a nationally important winter and summer site for 6 migratory species including having year-round habitat value for the Critically Endangered Far Eastern Curlew and supporting nationally significant diversity of migratory shorebirds.

Criteria for inclusion includes sites assessed against internationally recognised quantitative criteria. For a site to be classed as internationally important, 1% of a species' flyway population had to use that site, and for a site to be considered nationally important, 0.1% of a species' flyway population had to use the site. This rigorous approach identified 104 internationally significant sites and 187 nationally significant sites, with an additional 41 sites used by Latham's Snipe, spanning all states and territories.

These habitats include tropical mudflats, temperate estuaries, arid inland wetlands, high-energy ocean beaches, and extensive wetland complexes, each supporting unique shorebird assemblages and facing distinct threats. Because the habitat surrounding Darwin Harbour has largely retained its ecological integrity, there is a significant opportunity to manage the area in ways that maintain the current shorebird populations. Achieving this requires both the protection of existing habitat and improved understanding of how shorebirds rely on different parts of the harbour, including how they may be affected by environmental change.

The Darwin Harbour Migratory Shorebird Site Action Plan<sup>5</sup> outlines the steps needed to support this work, emphasising collaboration among scientists, community members, government agencies, and industry partners. This is particularly critical at a time when there is potential for an incursion of Highly Pathogenic Avian Influenza (H5N1) to the Australian mainland, as well as emerging climate change related ecological disasters such as marine heatwaves, that are threatening the resilience of our shorebird habitats and populations in Australia.

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<sup>3</sup> Lilleyman, A., Franklin, D. C., Szabo, J. K., & Lawes, M. J. (2016). Behavioural responses of migratory shorebirds to disturbance at a high-tide roost. *Emu - Austral Ornithology*, 116(2), 111–118. <https://doi.org/10.1071/MU14070>

<sup>4</sup> See p. 66 in Driessen, J., Kidd, L. R., Weller, D. R., Purnell, C., Maguire, G., Jaensch, R., and LeClair, S. M. (2025). Australian National Directory of Important Migratory Shorebird Habitat. Report for the Department of Climate Change, Energy, the Environment and Water. BirdLife Australia, Melbourne.

<sup>5</sup> (Lilleyman, A., & Obrien, G (n. 2)

## The proposed action

INPEX proposes to construct, commission, operate and ultimately decommission a network of CO<sub>2</sub> transport and processing infrastructure associated with the Ichthys LNG facility. The proposal includes approximately 12 kilometres of interlinked 16-inch CO<sub>2</sub> pipelines and associated utilities, together with modifications to the Acid Gas Removal Unit (AGRU) and Carbon Capture and Export System (CCES) at the Ichthys LNG facility. Activities include hot commissioning, ongoing operation and maintenance, and decommissioning of existing acid gas incinerators.

The project footprint covers approximately 77 hectares across five defined areas:

- Ichthys CCS pipeline area;
- Ichthys CCS pipeline tie-in station;
- Ichthys CCS (Darwin LNG link) pipeline area;
- Darwin LNG pipeline tie-in station; and
- supplementary power intake substation.

While the proponent states that the project is not staged and is unrelated to other proposals, BirdLife Top End notes that multiple directly related CCS and gas projects are proposed or under assessment within the same receiving environment, including:

- Ichthys LNG AGRU Upgrade and CCS Preparedness works; and
- the Bonaparte Carbon Capture and Storage Project.

Given the proposed removal of acid gas incinerators and broader modifications to the Ichthys LNG facility, the project is functionally linked to existing and ongoing offshore and onshore gas infrastructure within Darwin Harbour.

The proponent indicates that up to 300 million tonnes of CO<sub>2</sub> may be transported and injected as part of the proposal. This scale exceeds that of any offshore CCS project currently in operation globally and introduces novel risks that have not previously been assessed in this environment.

## Our Concerns:

The Ichthys Carbon Capture and Storage (CCS) Project represents a significant new pressure on Darwin Harbour at a time when migratory shorebird populations are already declining globally. All levels of government have an obligation to protect migratory shorebirds and their habitats. Darwin Harbour regularly supports more than 17 species of migratory shorebird. Of those, fifteen are listed as vulnerable, endangered or critically endangered on the Environment Protection and Biodiversity Conservation Act 1999 and subject to the conservation advice for migratory shorebirds.<sup>6</sup>

The intertidal habitat located within the project area of this development is documented as nationally significant for the Critically Endangered Far Eastern Curlew (*Numenius madagascariensis*).<sup>7</sup> Curlews feed and roost within the saltmarsh habitat located within mangroves. The Far Eastern Curlew is one of the largest shorebirds in the world and is endemic to the East Asian-Australasian Flyway. The

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<sup>6</sup> Commonwealth of Australia. (2015). *EPBC Act Policy Statement 3.21: Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species*. Department of the Environment.

<sup>7</sup> Lilleyman, A., Alley, A., Jackson, D., O'Brien, G., & Garnett, S. T. (2018). Distribution and abundance of migratory shorebirds in Darwin Harbour, Northern Territory, Australia. *Northern Territory Naturalist*, 28, 30–42. <https://doi.org/10.5962/p.374204>

population of this species has declined by 80% over the last forty years. In this context, we note that Inpex's statement that "The Project area does not overlap with any habitats that host important populations of critically endangered, endangered or vulnerable avifauna species."<sup>8</sup> and submit that this is manifestly incorrect and as such, their risk assessment has not accounted for the significant impacts, as defined under the legislation, that will occur.

## **Specific Impacts**

### **1. Impacts to Critical Migratory Shorebird Habitat**

This is our most significant concern. Darwin Harbour provides critical habitat for shorebirds, supporting nationally significant numbers of migratory shorebirds including the Critically Endangered Far Eastern Curlew, and supporting significant populations of Vulnerable Greater Sand Plover (*Charadrius leschenaultii*) and multiple other threatened shorebirds.

Surveys in 2017 found 329 Far Eastern Curlews during high tide throughout Darwin Harbour, including within salt pans on the Middle Arm peninsula. Research on the movements of Far Eastern Curlew in Darwin Harbour using GPS tracking showed that Far Eastern Curlew uses salt pans and coastal saltmarsh in amongst mangrove forests throughout both spring and neap tide cycles.. These intertidal ecosystems on the Middle Arm peninsula also support Whimbrel (*Numenius phaeopus*), Grey Plover (*Pluvialis squatarola*), Pacific Golden Plover (*Pluvialis fulva*), Grey-tailed Tattler (*Tringa brevipes*) and Greater Sand Plover (*Charadrius leschenaultii*), as well as many other shorebirds and waterbirds. See figure below.

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<sup>8</sup> See page 214 of SID

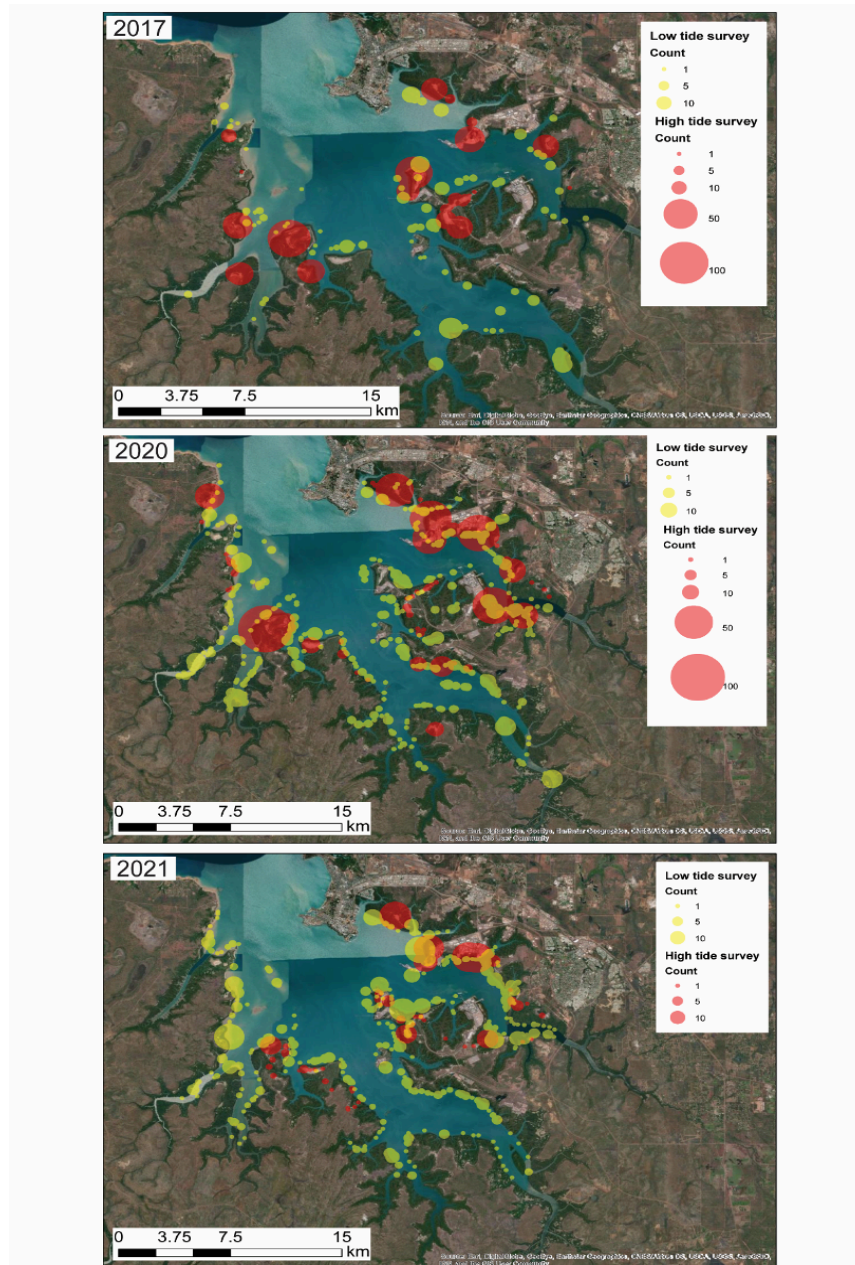


Figure 1: Distribution and abundance of all shorebirds and waterbirds recorded during aerial surveys conducted during low-tide and high-tide in 2017, 2020, 2021 in Darwin Harbour, Northern Territory. Not to be reproduced. Unpublished data by A. Lilleyman et al.

Northern Territory conservation advice for the Far Eastern Curlew, is to “retain healthy intertidal mudflat habitats; improve protection of roosting sites; manage anthropogenic disturbance at important sites when Far Eastern Curlews are present; and incorporate requirements for the species into coastal planning and management”<sup>9</sup> This advice also applies to Greater Sand Plover, Great Knot, Lesser Sand Plover and Red Knot.<sup>10</sup> The project will impact this nationally significant habitat for

<sup>9</sup> Northern Territory Department of Environment, Parks and Water Security. *Far Eastern Curlew (Numenius madagascariensis). Threatened Species of the Northern Territory*. Darwin: NT Government, November 2021.

<sup>10</sup>See <https://nt.gov.au/environment/animals/threatened-animals>

migratory shorebirds, including the Far Eastern Curlew, both during the construction phase, and throughout ongoing operations and maintenance. These impacts are outlined below.

**a. Construction disturbance during the 2028-2031 development phase**

The Proponent states that trenching, clearing, pipe laying and other construction activities would be localised, short-term, and therefore unlikely to cause significant impacts. This view, however, does not account for the cumulative disturbances likely to be produced by multiple activities occurring across Darwin Harbour, nor the resulting cumulative effects on individual animals and on population-level health, particularly for threatened and migratory species.

The Act, at s 11, defines ‘significant impact’ as an impact of major consequence having regard to: (a) the context and intensity of the impact; and (b) the sensitivity, value and quality of the environment impacted on and the duration, magnitude and geographic extent of the impact. Conservation advice under the EPBC Act for the Far Eastern Curlew<sup>11</sup> states that “All internationally or nationally important habitat that exceeds the above thresholds is considered habitat critical to the survival of the species.”

The degradation or loss of designated important habitat will have a disproportionately detrimental impact on the species’ populations and must be avoided. Habitat critical to the survival of the species should not be destroyed or modified. In relation to Ichthys CCS(Darwin LNG) Pipeline Area and surrounding mangroves, Inpex states “A number of alternative routes are currently being considered for a small section of the pipeline (approximately 1 kilometre) where the pipeline route traverses a salt flat. The location where alternate routes are being considered is shown in Figure 2-6. The selection of the final route in this location is subject to ongoing consultation and future surveys (heritage, geotechnical and geophysical) and would be determined during detailed design.”

We note that the best available research on flight initiation distance (the distance at which wildlife respond to disturbance behaviourally (e.g., walk, run, flee)) for Far Eastern Curlews found that disturbance can occur from up to 196m away.<sup>12</sup> In that context, the project footprint area plus potential disturbance area would be approximately 70,337.49 m<sup>2</sup> or 7.03HA of nationally significant habitat that is vital for survival of the species would be impacted.

Inpex has not mapped roosting or feeding habitat across Darwin Harbour for the Far Eastern Curlew, and relies on an assumption that ‘shoreline habitat’ is interchangeable, as we have already outlined, this is manifestly incorrect. In addition, we note that Inpex has failed to consider the temporal context in which this disturbance may occur. When migratory shorebirds arrive in Darwin Harbour, much of their fat stores have been depleted due to a long migratory journey, any disturbance as these birds rest and feed during this vulnerable period is of particular concern.

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<sup>11</sup> Australian Government, Department of Climate Change, Energy, the Environment and Water (2023), Conservation Advice for *Numenius madagascariensis* (far eastern curlew) . Accessed via <https://www.environment.gov.au/biodiversity/threatened/species/pubs/847-conservation-advice-18122023.pdf> (Far Eastern Curlew Guidelines)

<sup>12</sup> See page 329 in Glover, H. K., Weston, M. A., Maguire, G. S., Miller, K. K., & Christie, B. A. (2011). *Towards ecologically meaningful and socially acceptable buffers: Response distances of shorebirds in Victoria, Australia, to human disturbance*. *Landscape and Urban Planning*, 103(3–4), 326–334.

In stating that “Given the vast area of habitat at Middle Arm, the vegetation clearing and earthworks are anticipated to result in limited disturbance to fauna and are not considered to cause long-term impacts on faunal communities in the area.”, Inpex has also failed to account for the high site fidelity Far Eastern Curlews are known to have, both on a global and local scale. Research has shown that Far Eastern Curlews, like other shorebirds, return to the same site year after year. Furthermore, within local sites which have a number of options for suitable habitat, individual birds utilise only some<sup>13</sup>. Research in Darwin for example, has shown that Far Eastern Curlew populations utilising Darwin Harbour are different to those using Lee Point. While variation has been shown in some research and this perhaps reflects behavioural flexibility, it may also signal that the resources birds rely on, and the pressures they face, change from year to year<sup>14</sup>. If resources do vary, then protecting habitat that appears critical in one year may not be sufficient in later years. This underscores the need for a precautionary approach that safeguards habitat extent over the long term.

Inpex states that works will preferably occur over ‘two consecutive dry seasons’<sup>15</sup>, however, in ‘Figure 2-1: Indicative schedule of proposed activities’<sup>16</sup>, the schedule for ‘pipeline & cable excavation and backfill’ is shown to be staged from midway through Q3 2028 into Q3 2030, indicating work could occur throughout the whole period.

We submit that the migratory schedule of shorebirds does not line up exactly with the ‘two distinct seasons’ outlined in the SID, and a portion of the population remain in Darwin Harbour throughout the year, particularly younger birds who need to build up body mass in order to undertake the significant migration back to the Northern Hemisphere.

We note Inpex’s recent referral for the Bonaparte Carbon Capture and Storage Project, which is proposed to occur simultaneously to this project, and on the same nationally significant saltpan, the cumulative impacts of which should have been considered and assessed.

Industry guidelines state that any activity that diminishes the capacity of shorebirds to use an area for roosting or foraging, or that reduces the availability of food resources, constitutes habitat degradation and is highly likely to cause a significant impact. This includes situations where acid sulphate soils (ASS) are introduced or exposed within habitat. When ASS are exposed to oxygen, they can alter the chemical balance of the environment, lowering pH and releasing heavy metals.<sup>17</sup> Inpex acknowledges that ASS may be present within the area and that they can pose environmental risks when exposed for extended periods. However, the proponent does not address how these risks may affect migratory shorebird habitat.

While we are particularly concerned about unacceptable impacts on the Far Eastern Curlew, the same risks and impacts apply to other migratory species. We submit that the habitat within the project area is expected to be affected in ways that do not align with the Industry Guidelines for

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<sup>13</sup> See <https://eaaflyway.net/importance-of-moreton-bay-to-far-eastern-curlew/>.

<sup>14</sup> Lilleyman, Amanda; Corriveau, Amélie; Garnett, Stephen; Bush, Robert; Coleman, Jon; Fuller, Richard; Jessop, Roz; Leiper, Ian; Maglio, Grace; O’Brien, Gavin; Stanioch, Damien; Jackson, Micha. Variation in space use between sites, years and individuals for an endangered migratory shorebird has implications for coastal planning. *Conservation Science and Practice*. 2024; e13261:11. <https://doi.org/10.1111/csp2.1326>

<sup>15</sup> See page 62 of SID

<sup>16</sup> On page 34 of the SID

<sup>17</sup> Australian Government, Department of Climate Change, Energy, the Environment and Water (n.d.) Acid Sulfate Soils, accessed via <https://www.waterquality.gov.au/issues/acid-sulfate-soils>

avoiding, assessing, and mitigating impacts on migratory shorebird species listed under the EPBC Act<sup>18</sup> or conservation advice for numerous species listed under the TPWC Act<sup>19</sup>. BLTE submits that Inpex is incorrect in concluding that that impacts to terrestrial ecosystems due to vegetation removal and indirect construction impacts including disturbance, erosion, and ASS disturbance are “low” and the consequences are “insignificant”<sup>20</sup>. In Making this conclusion, Inpex has failed to consider relevant Conservation Advice and the significance of impacted habitat. BLTE submits that potentials impacts are significant, and that Inpex has not identified mechanisms to appropriately mitigate or manage those risks.

## 2. Risk of leak or pipe rupture

The project includes 12 kilometres of onshore pipeline for transport of carbon dioxide. Inpex has not assessed the risks of a leak or loss of containment on bird life in the surrounding area. Release of CO<sub>2</sub> poses risks that wildlife may be unable to avoid because the gas is colourless and odourless. CO<sub>2</sub> can settle close to ground level and act as an asphyxiant.<sup>21</sup> As discussed above, the project project area transects nationally significant habitat for the Far Eastern Curlew, and also provides habitat for a range of migratory shorebirds. Introducing a pipeline that brings risks of direct mortality may be inconsistent with the Industry Guidelines on avoiding and mitigating impacts on TPWC and EPBC Act listed migratory shorebird species, and Inpex have failed to demonstrate that this does not represent an unacceptable risk.



Figure 2: Nationally significant saltpan used by the Critically Endangered Far Eastern Curlew which is likely to be impacted by proposed works.

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<sup>18</sup> Commonwealth Government (n. 6)

<sup>19</sup> See advice for migratory shorebirds <https://nt.gov.au/environment/animals/threatened-animals>

<sup>20</sup> see page 152-153 of the Referral doc

<sup>21</sup> Parliament of Australia, House of Representatives Committees. (n.d.). *Chapter 5: The environmental benefits and risks of CCS and public perception* (pp. 55–68).

[https://www.aph.gov.au/parliamentary\\_business/committees/house\\_of\\_representatives\\_committees?url=scin/geosequestration/chapter5.html](https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=scin/geosequestration/chapter5.html).

### 3. **Planned or unplanned venting of CO<sub>2</sub>**

The Proposed Activity may significantly affect MNES, as well as their habitats, through both planned and unplanned atmospheric emissions of CO<sub>2</sub> and other air toxics. Industry guidelines for avoiding, assessing and mitigating impacts on TPWC and EPBC Act-listed migratory shorebird species note that any action introducing a risk of mortality within important habitat may constitute a significant impact.

Based on information provided in the Referral, vented emissions may be as high as 3 Mtpa<sup>22</sup>. BirdLife Top End is deeply concerned about the significant risks posed by these anticipated atmospheric emissions, particularly given the lack of clarity around the completeness and accuracy of the emissions estimates. Venting of the CO<sub>2</sub> stream, even at the volumes described by Inpex, without any measures to remove air toxics represents an unacceptable threat to biodiversity. Such emissions have the potential to cause acute or chronic health impacts on listed species, including migratory shorebirds.

Inpex acknowledges that routine and non-routine air emissions may modify or degrade habitat for TPWC and EPBC Act-listed birds and may affect their behaviour, yet asserts that these impacts will be “localised and/or temporary” and therefore negligible.<sup>23</sup> BirdLife Top End strongly rejects this characterisation. Temporary emissions at high volume can directly kill birds, and “localised” impacts may occur in areas of nationally significant ecological value, including key habitat for the Far Eastern Curlew. The level of atmospheric emissions anticipated in the Referral is inconsistent with relevant industry guidelines and conservation advice for avifauna. We also note with concern the history of Inpex has in under-estimating and reporting of their emissions.<sup>24</sup>

If a leak or loss of containment were to occur along the 12-km CO<sub>2</sub> export pipeline or at either of the two proposed tie-in stations, CO<sub>2</sub> could be released either gradually or suddenly. The health effects of CO<sub>2</sub> and associated contaminants would depend on the concentration reached and the duration of exposure. High concentrations of CO<sub>2</sub> pose a hazard because the gas is colourless, odourless, and heavier than oxygen. If it accumulates in low-lying areas, CO<sub>2</sub> can displace breathable air and act as an asphyxiant, posing risks to humans and other animals.

INPEX notes that “small volumes of CO<sub>2</sub> (less than 3,000 T/yr) from compressor/dehydration blowdowns, analyser metering, seal vents, dehydration/metering start-up and pressure safety valve (PSV) relief events would be directed to dedicated cold vents.”<sup>25</sup> The two tie-in stations that contain “localised venting facilities” are located in close proximity to habitat the legislation describes as ‘critical to the survival’ of Far Eastern Curlew.

Inpex acknowledges that emergency venting of the pipelines may be required during a repair, with estimated releases of 890 m<sup>3</sup> of CO<sub>2</sub> from the Ichthys CCS pipeline and 360 m<sup>3</sup> from the DLNG link pipeline. Using the expansion ratio set out in the interim National Action List, where 1 litre of liquid CO<sub>2</sub> expands to 535 litres of gas, a catastrophic rupture could release more than 476,000 m<sup>3</sup> of CO<sub>2</sub> from the Ichthys CCS pipeline alone. A release of this magnitude would rapidly displace

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<sup>22</sup> See page 78 of the SID

<sup>23</sup> See page 213 of the SID

<sup>24</sup> See

<https://www.abc.net.au/news/2025-10-22/nt-government-launches-investigation-into-inpex-emissions-error/105916724>

<sup>25</sup> See page 72 of the SID

oxygen, creating an acute asphyxiation hazard in low-lying areas frequently used by migratory and vulnerable bird species.

Inpex has not assessed the ecological consequences of such an event, nor properly identified Matters of National Environmental Significance at risk of significant impact. For BirdLife Top End, the failure to consider the implications for threatened and migratory shorebirds is deeply concerning. These species rely heavily on coastal and intertidal habitats adjacent to the proposed infrastructure, and both Conservation Advice for the Far Eastern Curlew and national Industry Guidelines for Migratory Shorebirds, along with research referenced throughout this submission highlight their extreme sensitivity to disturbance and habitat degradation. Given these omissions and the potentially catastrophic effects of a large-scale CO<sub>2</sub> release, BirdLife Top End considers the project unacceptable.

### **Stakeholder Engagement**

BirdLife Top End is concerned that Inpex has not engaged with our organisation, despite our role as the region's primary source of expertise on migratory shorebirds and our long-standing involvement in monitoring their populations in Darwin Harbour. Our volunteers, while limited in time and capacity, collectively hold more than 50 years of on-ground experience observing, surveying, and advocating for these species. This expertise is unique, irreplaceable, and directly relevant to assessing the risks posed by the proposed activity.

Through our bi-annual shorebird festivals, monthly shorebird counts, regular community engagements and advocacy, BirdLife Top End has developed a prominent profile in the Northern Territory and national conservation space. Our 2024 Migratory Shorebird Site Action Plan was distributed widely and reported on in traditional<sup>26</sup> and social media. The plan calls and outlines the need for stronger engagement with all stakeholders, including industry.

Inpex's stakeholder engagement obligations require it to identify key stakeholders; analyse their influence and vulnerability; understand the issues that matter most to them; and clearly identify how those stakeholders could contribute to, or be affected by, the proposal. By disregarding the insights and concerns of the community's most experienced shorebird monitors and advocates, Inpex has failed to meet even the minimum standards expected under the legislation, undermining both the integrity of the environmental assessment and the protection of migratory shorebirds that depend on Darwin Harbour. Indeed, the failure to recognise the national significance of habitat in the proposed project area is indicative of engagement and risk assessment processes that lack both credibility and reliability.

### **Recommendations**

We urge the NT EPA, pursuant to s 55(5)(b) of the *Northern Territory Environment Act 2019* should determine that the proposed action is unacceptable because it is likely to have significant impacts that cannot be appropriately avoided, mitigated or managed.

Failing this, S 55(5)(a) of The Act, the NT EPA should determine that an environmental impact

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<https://ntindependent.com.au/migratory-shorebirds-protection-plan-warns-of-development-along-darwin-harbour/>

assessment is required for the referred action or strategic proposal to ensure a more rigorous level of assessment, supported by comprehensive baseline data, independent analysis, and a precautionary approach to decision-making.

Kind regards,



Mitch Rose  
Co-convenor – BirdLife Top End

**Appendix - list of migratory shorebirds recorded in Darwin Harbour and their status under Environment Protection and Biodiversity Conservation Act 1999.**

Common Name	Scientific Name	EPBC Act Status
Far Eastern Curlew*	<i>Numenius madagascariensis</i>	Critically Endangered
Curlew Sandpiper	<i>Calidris ferruginea</i>	Critically Endangered
Great Knot	<i>Calidris tenuirostris</i>	Critically Endangered
Bar-tailed Godwit	<i>Limosa lapponica</i>	Vulnerable (baueri subspecies)
Greater Sand Plover*	<i>Charadrius leschenaultii</i>	Vulnerable
Lesser Sand Plover	<i>Charadrius mongolus</i>	Endangered
Red Knot	<i>Calidris canutus</i>	Endangered
Sharp-tailed Sandpiper*	<i>Calidris acuminata</i>	Vulnerable
Whimbrel*	<i>Numenius phaeopus</i>	Migratory
Grey-tailed Tattler*	<i>Tringa brevipes</i>	Migratory
Terek Sandpiper*	<i>Xenus cinereus</i>	Migratory
Common Greenshank	<i>Tringa nebularia</i>	Migratory
Marsh Sandpiper	<i>Tringa stagnatilis</i>	Migratory
Wood Sandpiper	<i>Tringa glareola</i>	Migratory
Common Sandpiper	<i>Actitis hypoleucos</i>	Migratory
Ruddy Turnstone	<i>Arenaria interpres</i>	Migratory
Red-necked Stint	<i>Calidris ruficollis</i>	Migratory
Sanderling	<i>Calidris alba</i>	Migratory
Broad-billed Sandpiper	<i>Calidris falcinellus</i>	Migratory
Grey Plover	<i>Pluvialis squatarola</i>	Migratory
Pacific Golden Plover	<i>Pluvialis fulva</i>	Migratory
Red-capped Plover	<i>Charadrius ruficapillus</i>	Migratory
Little Ringed Plover	<i>Charadrius dubius</i>	Migratory
Oriental Plover	<i>Charadrius veredus</i>	Migratory
Black-tailed Godwit	<i>Limosa limosa</i>	Migratory
Asian Dowitcher	<i>Limnodromus semipalmatus</i>	Migratory

\*species meeting thresholds as nationally important at Darwin Harbour, within the Australian National Directory of Important Migratory Shorebird Habitat (2025)