

A COMMUNITY SURVEY OF HUMPBACK WHALES

near the site of the proposed James Price Point BLNG Precinct

Summary of results | March 2013

Background

The WA Environmental Protection Authority (EPA) recently gave the WA Department of State Development (DSD) and Woodside Energy Ltd (WEL) environmental approval to develop a Browse Liquefied Natural Gas (BLNG) Precinct, at James Price Point (JPP) on the Kimberley coast, approximately 60 km north of Broome.

As part of the strategic assessment process, RPS Consultants were engaged by the proponents to survey humpback whales (*Megaptera novaeangliae*) at the site. The consultants estimated that during the 2012 migration season, approximately 5% of the total population, or 1000 whales would pass within 8 km of the proposed development at JPP. They also suggested that as the BLNG precinct was located on a straight section of coastline, it was less attractive as a resting place for humpback whales. These findings were used by the EPA in their approval of the development.

Due to community concerns about the rigour of the science presented by the consultants, a land-based survey was initiated in collaboration with the Traditional Owners, the Goolarabooloo, and the Broome Community No Gas Campaign, to investigate humpback whale numbers, behaviour and habitat use of the JPP region for comparative purposes.

Survey Methods

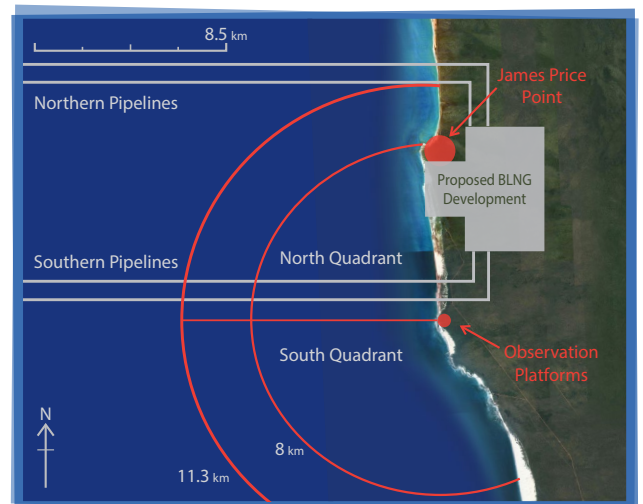
The survey was conducted from two observation platforms located on a cliff top at Murdudun (8 km south of JPP). The survey area covered 223 km² of the JPP region.

Surveying was carried out continuously for a four hour period each day (0800 – 1200), from 1st July - 30th September 2012 (the peak migration period).

When a pod or individual was sighted, observers recorded the number of adults and cow-calf pairs, the compass bearing, distance, time, latitude, longitude, tide and whale behaviour.

To collect data about habitat use and to reduce the possibility of double counting whales, most pods were followed as they moved through, or stayed resting in the survey area.

The data collected was used to produce a peer-reviewed, scientific report.



A map of the survey area & observation platforms in relation to JPP and the BLNG development



The observation platforms at Murdudun



*The Humpback Whale (*Megaptera novaeangliae*), Mother and calf near the shores of James Price Point*

Results

During the three month survey period, survey participants counted **3343 individual humpback whales**, including **214 cow-calf pairs**. Taking a conservative approach and removing potential re-sightings, **2669 individual humpback whales**, including **172 cow-calf pairs** were recorded.

Assuming that the migration rate observed during the four hour survey period was constant over a full 24 hour cycle, our results suggest that 12, 108 - 15, 876 individual whales passed within 8 km of the JPP shoreline over the entire 2012 migration season. Both the conservative number of 2669 whales and the extrapolated maximum of 15, 876 whales, greatly exceeds the **1000 whales that RPS estimated** would pass within 8 km of the proposed development in 2012.

This **disparity** is either due to **large inter-annual variation** in whale numbers using the nearshore area at JPP between our survey year (2012) and that of RPS (2010), or a **gross underestimation** of whale numbers by the consultants. Our results show that the failure of the consultants to consider tidal movements at JPP may have contributed to this underestimation.

The **timing** of the **peak northern migration** for adult whales was consistent with previous studies, occurring in mid-late July and **coincided with a peak of cow-calf pairs**. This suggests that some **newborn whales** are born south of the observation platforms and **use the JPP area** for their vital first interactions.

Whales engaged in resting, milling, playing and slow swimming **behaviour** close to shore, including critically important nursing interactions between cows and calves. Observations of newborn calves also suggest that some **calving** may also occur in the JPP region and south of the JPP region. These observations are in contrast to the Strategic Assessment Report (SAR) and the WA EPA's assessment of the area being unattractive to whales as a resting place.

The proposed BLNG precinct is likely to cause significant **habitat degradation** and **behavioural disturbance** to humpback whales, through **acoustic pollution**, possible **ship strikes**, changing water quality and turbidity from ongoing dredging and 2,700 annual shipping movements. This, in turn, is likely to cause **exclusion** of whales from appropriate habitat, **reduced reproductive success** & even **mortality** events. There is, therefore a **high potential** for **negative impacts** at a **population level**.

In light of this potential population risk, the **science** that has informed the **impact assessment** is **not comprehensive, adequate** or **representative** enough to demonstrate with certainty that this development will not lead to population level impacts on humpback whales.

Total no. of individual whales (including cow-calf pairs)		
Distance from shore	Min.	Max.
4.5 km	985	1217
8 km	2018	2646
11.5 km	2669	3343

Total number of individual whales recorded within 4.5 km, 8 km & 11.5 km of the shore



Recommendations

1. The results of this study indicate that the nearshore waters around JPP are frequented by a significant number of humpback whales and represent a resting and nursing area for the population. These results are in contrast to the science informing the impact assessment so far. Due to this uncertainty, the **precautionary principle** should be applied and **more extensive and thorough research into the use of JPP by humpback whales needs to occur before the potential impacts of the BLNG development can be adequately assessed.**
2. This study demonstrates that the proponents have **not adequately assessed** the potential for **population impacts** of the BLNG development on humpback whales. In approving the development, the WA **EPA** has **not adhered** to its own **legal mandates**. We strongly urge the Commonwealth Government to meet their obligation under the *Environmental Protection and Biodiversity Conservation Act* (1999).
3. Should the proponents consider alternative locations in this environmentally sensitive region of the coast, further **independent** humpback whale **surveys** should be commissioned with an **emphasis** on the **rigour** of the surveys. These studies should thoroughly assess the potential impacts of industrial activity and provide **ecologically sustainable mitigation strategies** that strongly adhere to the relevant legislation.