



Key environmental impacts of the proposed Kimberley gas hub

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The WA Government's 8,000 page environment impact assessment (or Strategic Assessment Report ('SAR')) for the proposed massive James Price Point gas refinery and industrial port was released for public comment in Dec 2010¹. Despite all its omissions and evasions, the SAR could not conceal that the project would have a devastating impact on the beautiful, pristine Kimberley coast, local communities & the tourist mecca of Broome. The Kimberley coast is one of the natural wonders of the world and is not the place for this type of polluting industrialisation. A year after its release, the SAR has not been approved by either State or Commonwealth Environment Ministers. **It should never be approved.**

Land

1. Up to three massive gas refineries, each with their own port facilities, producing up to **50 million tonnes** of LNG per annum (i.e. more than **ten times** the output of Woodside's Pluto LNG project on the Burrup Peninsula) (Ref: SAR Part 1);
2. **3,037 hectares** of land clearing – mainly Pindan woodland and Monsoon vine thicket (Ref: SAR Part 4, p 2-53);
3. "Permanent removal" of **1.5 kilometres** of shoreline at James Price Point, with a further one kilometre "disturbed" for pipeline corridors (SAR Part 6, p 2-30);
4. Clearing of **132 hectares** of rare Monsoon vine thicket (or remnant rainforest), with a further **440 ha** at risk of loss due to draw-down of groundwater aquifers by the project. Monsoon vine thicket is a recognised 'Threatened Ecological Community' in WA and is under consideration for Commonwealth listing (Ref: SAR Part 4, p 2-57);
5. Up to **8 billion litres** of freshwater use per year (Ref: SAR Part 3, p 2-35; Part 2, p. 5-16). **NOTE:** The SAR is very evasive about where this water will come from and what the impacts will be. It is likely to require both substantial local groundwater aquifer extraction and a huge new desalination plant.

Sea

6. Up to **30,000,000,000 litres (30 Gigalitres) per year** of industrial waste water and brine dumped into the ocean off James Price Point (SAR Appendix G1). **NOTE:** This "routine marine discharge" will occur in a marine environment described by the SAR as, "having little or no anthropogenic contamination" – i.e. pristine waters (SAR Part 3, p 1-10);
7. A huge (up to 20 metres above sea bed) concrete and rock breakwater extending for up to **7 kilometres** out to sea and cutting across the 'Kimberley Humpback whale highway' (Ref: SAR Part 2, p 5-24); **NOTE:** The SAR carefully omits details of exact size, location and impacts of breakwater);
8. **21 million cubic metres** of sea bed dredging – in the **initial** port and shipping channel dredging 'campaign' (SAR Part 3, p 2-33);
9. Creation of a **52 square kilometre** 'marine dead zone' (in a pristine marine environment) - resulting from dredging, dredge 'spoil' dumps and other port works (Ref: SAR Part 3, Figure 2.4-1). **Note:** the SAR carefully avoids giving the full extent of the 'marine dead zone', which can only be calculated by estimating the combined area of four separate "Zones of high impact" shown on the low resolution figure referenced above;
10. Up to **14 pipelines** (from gas field to gas hub and from hub to marine environment) (Ref: SAR Part 3, p 2-5). **NOTE:** These pipelines and other port infrastructure will directly impact on the newly heritage-listed dinosaur trackways;
11. Up to **2,700** shipping movements per year – in an area of 'critical habitat' for calving Humpback whales, four species of dolphins, turtles and dugong (Ref: SAR Part 2, p. 5-14).

Air

12. Up to **39 million tonnes** of greenhouse gas emissions per annum – a 50% increase on WA's current total GHG emissions (Ref: SAR Part 2, p. 5-34);
13. Up to **66,000 tonnes per annum** of other noxious and carcinogenic gas emissions, e.g. volatile organic compounds (VOCs), and B-TEX (benzene, toluene, ethylbenzene and xylenes) (Ref: SAR Part 2, p 5-34).

¹ <http://www.dsd.wa.gov.au/8249.aspx>

Key failings of the WA government's SAR report

- The science that underpins the SAR has been shown to be **seriously flawed** and incapable of providing a sound basis for Ministerial decision making. For example, independent marine mammal experts have exposed fundamental flaws in the studies and conclusions relating to whales, dolphins and dugongs².
- The SAR fails to adequately investigate technically and economically feasible gas processing options **outside the Kimberley**, as required by the Terms of Reference³ for the Strategic Assessment;
- The SAR fails to provide **adequate information** necessary to assess a wide range of environmental impacts - e.g., water use and source, port/breakwater design, dredging program - details of which will not be available for public scrutiny at any other stage of the assessment;
- The SAR fails to address **cumulative impacts**, as required under the Terms of Reference for the SAR. For example, *“Modelling of a cumulative dredging scenario such that the cumulative impact from pipeline laying and the capital [port] dredging activities are incorporated, **will be untaken during the derived proposal stage**”* [i.e. after the SAR has been approved]. (Ref: SAR Part 3, p 2-54)
- Failure of **Peer Review Process**:

*“Given the significant environment and the scale and complexity of the proposal, there is required a **high level of confidence** of the technical work underpinning the Strategic Assessment. As such there is an intention to undertake ongoing reviews of the strategic assessment process and of all deliverables and outputs. Arrangements for Peer review, **including the establishment of a Peer Review Panel** consisting of members from government and non-government sectors are to be advised.”*

(Ref: “Browse LNG Precinct – Scope of the Strategic Assessment”, Department of State Development; Dec 2010. p 180) http://www.dsd.wa.gov.au/documents/Browse_SAR_Appendix_A-2.pdf

This peer review process has never been established. If it were, most of the ‘science’ that the SAR is based on would be shown to be seriously flawed and inadequate.

What will be impacted by the gas hub?

The following is an indicative list of “Matters of National Environmental Significance” (as defined under the Commonwealth EPBC Act) which are likely to be irreversibly impacted and harmed by this project if it were approved⁴:

- National Heritage Listed dinosaur trackways
- Commonwealth Marine Areas known to have “remarkable” fish species diversity and abundance
- At least four whale species (Humpback; Pygmy blue; Blue; Southern blue)
- At least four species of marine turtle (Flatback; Green; Hawksbill; Loggerhead)
- Up to three species of sawfish (Freshwater; Dwarf and Green)
- Greater bilby (and possibly Golden bandicoot; Golden-backed tree rat and Northern quoll)
- Listed migratory marine species (“non-threatened”): Dugong; Australian snubfin dolphin; Indo-pacific humpback dolphin; Spotted bottlenose dolphin
- Many listed migratory bird species that utilise local coastal and wetland areas including the nationally listed Willie Creek wetland
- The rare Monsoon Vine Thicket vegetation community which is currently undergoing assessment as a nationally listed ‘Threatened Ecological Community’
- A coastline that has been shown by global studies to be amongst the most pristine left on Earth⁵.

www.wilderness.org.au/kimberley

² Browse LNG Precinct Strategic Assessment Report: Part 3 Environmental Impact Assessment (Marine) Public Submission; A Hodgson, L Bejder, S Allen, J Smith. Murdoch University Cetacean Research Unit Centre for Fish, Fisheries and Aquatic Ecosystem Research School of Biological Sciences and Biotechnology Murdoch University, South St, Murdoch WA 6150.

³ <http://www.environment.gov.au/epbc/notices/assessments/pubs/kimberley.pdf>

⁴ http://www.dsd.wa.gov.au/documents/Browse_SAR_Part6_Commonwealth_Matters.pdf

⁵ Halpern, et al. (2008); A Global Map of Human Impact on Marine Ecosystems: <http://www.sciencemag.org/content/319/5865/948.abstract>