PO Box 370 • Forest Knolls, CA 94933 P: 415.663.8590 • F: 415.663.9534
www.SeaTurtles.org • www.SpawnUSA.org • www.GotMercury.org

September 5, 2014

Chairman Gerard Early and
Browse Delegates Glen McLeod and Tom Hatton
Office of the Environmental Protection Authority
Locked Bag 10
East Perth, WA 6892

Submitted via email Browse.Delegates@epa.wa.gov.au

Re: Ref. EA07-2013-0004

Dear Chairman Early and Browse Delegates,

Thank you for contacting Turtle Island Restoration Network (TIRN) about your new assessment of the Browse Liquefied Natural Gas (LNG) Precinct 2010 strategic proposal (Browse strategic proposal), located in the vicinity of James Price Point/Walmadany, approximately 60 kilometers north of Broome in Western Australia.

TIRN understands that the Environmental Protection Authority (EPA) is conducting a new review because in August 2013 the Supreme Court of Western Australia found that there had been no valid assessment of the Browse strategic proposal and no valid report on that assessment.

We understand that you are seeking new or additional technical or scientific information that has become available since the Strategic Assessment Report (SAR) on the Browse strategic proposal was released for public review in late 2010.

As you are aware, TIRN made a lengthy submission on the SAR raising numerous concerns about the likely negative environmental impacts from the Browse LNG project to endangered and protected marine turtles, other marine species, marine and coastal habitat, and air and water quality.

TIRN strongly opposes the siting of an LNG processing hub or any other industrial development at James Price Point/Walmadany as such a development would permanently destroy wild and sacred lands along the pristine Kimberley coast and open the door to widescale industrialization of the coastline. TIRN staff has toured the region; consulted with community activists, conservationists and traditional owners on numerous occasions about Browse; and hiked the Lurrujarri Trail -- so we understand what is at risk from massive oil and gas development.

TIRN filed an official appeal of the EPA's (now vacated) approval of the Browse LNG project and shared additional technical and scientific information when we met with the appeals convener in person in Perth. TIRN appreciates that the EPA delegates will review and consider these previous submissions when conducting the new assessment. Therefore, TIRN will not resubmit those comments or the associated scientific papers.

Since the 2010 SAR and our submissions in 2011 and 2012, a substantial new body of science related to marine turtles and other marine species in the vicinity of the Browse project has been published. TIRN will provide an snapshot of some of the new science and submit a number of papers for your review, below.

However, this submission does not comprise a comprehensive overview or literature search on relevant new marine turtle and marine species science in the west Kimberley. TIRN urges the EPA and the project proponents to conduct their own thorough literature search and consult with marine turtle experts and citizen scientists. This will be the only effective way to uncover all the new science relative to marine turtle and marine species that occur in the vicinity of the Browse project.

EPA - Browse SAR 2010 Review

TIRN is concerned about the legality and need for the review of the 2010 Browse strategic proposal that the EPA is now undertaking. Many changes have occurred since the Browse project was reviewed and the SAR published for public comment in 2010. The primary change is that Woodside Petroleum no longer plans to build a LNG precinct at the proposed site. None of the previous Joint Venture Partners have stepped forward. Since the state of Western Australia does not appear to have an oil-and-gas company proponent for such a project, it is difficult to understand the reason for conducting a new strategic review.

Furthermore, the 2010 SAR is no longer relevant, as it is now 4 years since the report was released and there have been substantive changes to environmental factors that are not reflected in the SAR. In addition, the proponents have published a number of reports to supplement the SAR since its release in 2010. These were not available at the time of public comment and may have affected our previous submissions. At the least, the EPA needs to allow the public to provide revised submissions based on up to date, correct information.

Perhaps more importantly from a conservation perspective, the west Kimberley has been granted additional protection since 2010, including national heritage listing of dinosaur footprints at James Price Point in 2011, listing in 2013 of monsoon vine thickets there as an endangered species, and designation of marine reserves to protect marine habitat (but that do not exclude oil and gas development). These protections indicate that the Browse SAR of 2010 is completely inadequate in its evaluation of current conditions and potential impacts.

In light of these concerns, TIRN urges the EPA to either abandon the review of the 2010 Browse SAR or require a new Browse strategic proposal from the proponents with a referral to EPA and a full public comment period.

Turtle Island Restoration Network (TIRN) is an international marine conservation organization headquartered in California with offices in Texas and Costa Rica whose 65,000 international members and online activists work to protect sea turtles and marine biodiversity around the world. We work to protect endangered marine species, save critical ecosystems, improve

consumer choices, encourage government action and inspire corporate responsibility, all to protect marine wildlife and the wild oceans we all rely upon. Our mission is to mobilize people in local communities around the world to protect marine wildlife and the oceans and inland watersheds that sustain them. For more information, visit www.SeaTurtles.org.

TIRN has provided extensive and detailed comments on the Strategic Assessment Report for the Browse LNG project as well as on the Browse Basin LNG Project Draft Upstream Environmental Impact Statement. TIRN has also commented on other major oil and gas projects that are underway or proposed in sea turtle habitat along the coast of Western Australia, including Chevron's Gorgon and Wheatstone LNG projects and Shell's proposal to drill near Ningaloo Reef. TIRN has also filed comments with the Export-Import Bank opposing the expansion of the Roy's Hill Iron Ore Project in the Pilbara. Our comments have focused primarily on the marine environment, marine turtles and shipping and the need to assess the cumulative impacts of these multiple industrial projects on the environment and human communities.

New Marine Turtle Science

New satellite tracking data and research conducted in and around James Price Point/Walmadany and the Kimberley coast and W.A. over the past five years provides stronger and stronger evidence that the coastal region provides critical breeding, foraging and migratory habitat for endangered and protected marine sea turtles and other marine species. Newly published science confirms what the conservation community has been saying for years: The Kimberley and W. A. coast is a "marine highway" for sea turtles and other marine wildlife.

Satellite tracking and tag-recapture data shows that marine turtles throughout Western Australian (and even from the Northern Territory) rely on the marine habitat at James Price Point/Walmadany for foraging and migration. The data also shows that marine turtles demonstrate strong site fidelity to foraging and migration areas, much as they do for nesting beaches. This indicates that marine turtles displaced by construction and operations of oil and gas development cannot easily change their life cycles in response to major disruption.

Over the past two years, new marine turtle science relevant to the Browse project and other oil and gas developments have been presented at two West Australian Sea Turtle Symposiums. For your review and reference, I am attaching the proceeds from the 2012 Sea Turtle Symposium which contains extended abstracts of the science. This science reinforces the fact that the EPA and the SAR overlooked important turtle research available from the Department of Conservation (now retitled), independent researchers and oil and gas industry consultants when making its determination that the project would not threaten marine turtle populations in the region.

Researchers from Deakin University and Pendoley Environmental suggested protecting marine turtle migratory corridors by adding them to the existing marine reserve system. Their research also discovered that whales, sharks and turtles share a common migration corridor along the Kimberley and W.A. coast, which was previously unknown.

In another significant new marine turtle finding in W.A., researchers working at EcoBeach south of Broome, (but well within the influence of the Browse project) found that flatback turtles nesting there comprise a distinct genetic unit. The Conservation Volunteers Australia EcoBeach 2013 report stated that: *Dr Nancy FitzSimmons was able to isolate this Eco Beach population as*

a separate and new genetic management unit of N.depressus in Western Australia.

This science counters the inaccurate findings in the Browse SAR that dismisses the importance of small populations of sea turtles nesting in the James Price Point/Walmadany region. The Browse SAR argued that any losses experienced by the small population would be "offset" by larger sea turtle populations, such as on the Lacepede Islands. However, negative impacts to a genetically distinct population cannot be "offset" by a distant and unrelated population.

New studies on light impacts on marine turtles in Australia have also been published as well as the first studies of the impacts on marine turtle eggs and nests from pile driving.

The life cycles of long-lived marine turtles require that their entire range of habitat be protected from oil and gas development, construction and operations. It is essential that the EPA look beyond the impacts to marine habitat in the immediate vicinity of the Browse project. The Kimberley coast and Western Australia is essentially a marine highway and the cumulative impacts of numerous oil and gas projects that intersect this marine highway must be assessed and avoided. Ultimately, oceans and the global community will benefit most from permanently protecting the Kimberley and large areas of the Western Australia coastline from oil and gas and other industrial development. It is one of the few areas of ocean and coastal habitats still relatively intact.

Thank you for your consideration of the new marine turtle science published since 2010 in your review of the Browse strategic proposal. TIRN trusts that the EPA will conduct a comprehensive and objective review that will result in recommendations for strong protections for marine sea turtles and other marine life for Browse or any other industrial project proposed in Western Australia's important marine and coastal habitat.

Sincerely yours,

Teri Shore, Environmental Policy Analyst - terishore@gmail.com
Todd Steiner, Executive Director - tsteiner@tirn.net
Dr. Alex Hearn, Director of Conservation Science - alex@tirn.net

Attachments - 10 - In separate emails

Alphabetical by title

Coastal light pollution and marine turtles: assessing the magnitude of the problem
Ruth L. Kamrowski1,*, Col Limpus2, James Moloney1, Mark Hamann1
ENDANGERED SPECIES RESEARCH Endang Species Res Vol. 19: 85–98, 2012 doi: 10.3354/esr00462
Published online November 27

Eco Beach Sea Turtle Monitoring Program, Report of 2013 nesting activity for the flatback turtle (Natator depressus) at Eco Beach, Western Australia
Wild Futures 2014 Glenn McFarlane - Marine Species Manager, Conservation Volunteers Australia

Effects of pile driving induced vibrations on sea turtle embryogenesis
Martina A. Ripcke, Bachelor of Science (Charles Darwin University)
Thesis submitted in partial fulfillment of the requirements for the Degree of Bachelor

of Science with Honours. School of Environmental and Life Sciences,
Faculty of Education, Health and Science, Charles Darwin University.

Inter-nesting distribution of green Chelonia mydas and flatback turtles Natator depressus at the Lacepede Islands, Western Australia
D A Waayers 1, L M Smith 2 & B E Malseed 3
Journal of the Royal Society of Western Australia, 94: 000–000, 2011
© Royal Society of Western Australia 2011

Important migratory corridor for endangered marine species off north-west Australia
http://phys.org/news/2014-04-important-migratory-corridor-endangered-marine.html

PRELIMINARY RESULTS OF THE EFFECTS OF PILE DRIVING VIBRATIONS ON SEA TURTLE EMBRYOGENESIS - Poster
M.A. Ripcke, M.L. Guinea, and K.A. McGuinness
School of Environmental Abstract and Life Sciences,
Charles Darwin University, Darwin NT 0909, Australia

Proceedings of the First Western Australian Marine Turtle Symposium 28–29th August 2012
Prince, R.I.T. Whiting, S. Raudino, H. Vitenbergs, A. and Pendoley, K. (Compilers) (2013).
Science Division, Department of Parks and Wildlife, Perth,
Western Australia 65p

Protected species use of a coastal marine migratory corridor connecting marine protected areas
Kellie L. Pendoley · Gail Schofield · Paul A. Whittock ·
Daniel Ierodiaconou · Graeme C. Hays
Mar Biol DOI 10.1007/s00227-014-2433-7 Original Paper
Received: 2 October 2013 / Accepted: 21 March 2014
© Springer-Verlag Berlin Heidelberg 2014

Reproductive biology of the flatback turtle Natator depressus in Western Australia
Kellie L. Pendoley*, Catherine D. Bell, Rebecca McCracken, Kirsten R. Ball,
Jarrad Sherborne, Jessica E. Oates, Patrick Becker, Anna Vitenbergs, Paul A. Whittock
ENDANGERED SPECIES RESEARCH Endang Species Res
Vol. 23: 115–123, 2014 doi: 10.3354/esr00569 Published online February 28