No. 161

LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

WRITTEN QUESTION

Mrs Lambley to the Minister for Environment:

Strategic Regional Environmental Baseline Assessment

The Fracking "Pepper" Inquiry outlined that the Strategic Regional Environmental Baseline Assessment ("SREBA") data acquisition, interpretation and reporting stages be conducted over a 3 to 5 year period. However it was recently announced the SREBA will be completed over a period of 18 months only.

1. Why has the timeframe for the SREBA process been cut from 3-5 years to 18 months?

2. What steps have been taken to ensure that the all the measures outlined in the Pepper Inquiry will being met due to this decreased timeline?

Answer to Question 1

The SREBA will incorporate data and information from the four year, $15 million investment by the Commonwealth into the Geological and Bioregional Assessment (GBA) program in the Beetaloo Basin. The GBA Beetaloo work between 2018 and 2021 has included very sophisticated hydrogeological and groundwater studies by CSIRO and Geoscience Australia, as well as aquatic and terrestrial ecological studies undertaken by Charles Darwin University (CDU) and the Department of Environment, Parks and Water Security (DEPWS). The latter included field sampling undertaken in 2020, which in combination with fieldwork in 2021 and 2022 for the SREBA means that ecological data will span seasonal cycles over a three year period, as recommended in the Pepper Inquiry.

There has been strong engagement between DEPWS and the Commonwealth GBA team to ensure that data collected during the GBA program is directly relevant to the requirements of the SREBA. All the data collected during the GBA will be available for incorporation into the SREBA baselines and associated analyses, including the novel causal pathway approach developed by the GBA for risk assessment of gas-related activities

The SREBA will also draw on recent data collection in the Beetaloo Basin by GISERA-funded projects, including baseline assessment of groundwater characteristics and environmental tracer analysis (2017-2018); monitoring of background landscape and baseline regional methane sampling (2018); and characterisation of stygofauna and microbial assemblages (2019-20). Other Commonwealth initiatives such as the Northern Australia Hydrogeochemical Survey and AusAEM (airborne electromagnetic survey) also provide valuable additional data for the SREBA groundwater studies

Answer to Question 2

The Pepper Inquiry established the requirement for the SREBA, provided clear guidance about the broad content of the SREBA, and also contained discussion about some of the details of this content, without being entirely prescriptive.

The SREBA Framework was subsequently developed and published by the Northern Territory Government to describe in greater detail the required content of each of the baseline study domains of the SREBA, ensuring that these met the objectives described in the Inquiry Report. The baseline studies undertaken for the Beetaloo SREBA will be consistent with the SREBA Framework, and the Minister for Environment must be satisfied that these studies are adequate before she approves the SREBA as being complete.

It should be noted that the Scientific Inquiry was not prescriptive that it must take three to five years to complete a SREBA; rather the Panel estimated that it would take this period to complete the data acquisition, interpretation and reporting that they considered would be required (see Final Report, p451). This estimate is consistent with the period of intensive data collection that is occurring for the Beetaloo Basin, as described for Q1 above.

Underground Water Final Risk Assessments

The recently discovered presence of Stygofauna in several underground water systems seems to indicate a higher level of interconnectivity of underground water sources, as well as higher flow rates, than previously thought.

3. Please explain what plans are in place for undertaking final risk assessments of underground water systems subsequent to the finalisation of SREBA.

Answer to Question 3

Stygofauna would be expected to occur in any relatively shallow, karstic aquifer system such as the Cambrian Limestone Aquifer system which occurs over much of the Beetaloo basin. Some information about the stygofauna in this area was provided through a preliminary assessment undertaken by CSIRO and CDU in 2019-20, funded by GISERA.

One crustacean species, the shrimp *Parisia unguis,* was found in a number of bores with a relatively wide spatial distribution and relatively low genetic divergence between these samples. This was interpreted by the study authors as evidence of higher interconnectivity in this aquifer. This does not conflict with current understanding from hydrogeological studies about the degree of connectivity through the Cambrian Limestone Aquifer. The result was also interesting, as it suggests that stygofauna species may not have highly localised distributions within the Cambrian Limestone Aquifer, a significant feature of some other stygofauna communities in more fractured groundwater systems. The stygofauna study did not provide any information about flow rates in the groundwater system.

There has been a large body of work undertaken through the GBA to develop a regional hydrogeological conceptualisation for the Beetaloo Sub-basin.

Under the Water Quantity and Quality component of the SREBA, additional studies to address remaining knowledge gaps will be undertaken. There is a complex hydrogeology below the shallow Cambrian Limestone Aquifer. Improving understanding of the connectivity within elements in the Cambrian Limestone formations, recharge sources and groundwater flow rates will all help to better quantify and manage any risks to the Cambrian Limestone Aquifer from onshore gas activities.

The Aquatic Ecosystems component on the SREBA will include further sampling of stygofauna, to improve comprehensiveness of distribution data both spatially across the basin and at different groundwater depths.

The outcomes of all these studies will be synthesized and reported through the SREBA final reports. This information will be used during risk assessment for future regulatory approvals for onshore gas activities under the *Water Act 1992*, Petroleum (Environment) Regulations 2016 and/or *Environment Protection Act 2019*.

Strategic Regional Environmental Baseline Assessment Funding

Recommendation 9.4 of the Pepper Inquiry requires that the SREBA be funded by the gas Industry. However the Northern Territory Government is paying for the SREBA, on the understanding that the gas industry will "reimburse" this amount if and when the onshore gas industry ever reaches production.

4. Please clarify whether the SREBA process will be fully paid for upfront by the gas industry?

5. If not, please clarify if the NT government is planning to pay for some or all of the SREBA costs upfront and then be reimbursed by gas industry companies?

6. If the NT Government is paying for some or all of the SREBA costs, please provide the policy or contract deals for this information.

7. If the NT Government is paying for some or all of the SREBA costs, please provide details on how much has been spend on this process.

Answers to Questions 4 to 7

In line with the recommendations of the Scientific Inquiry, the Northern Territory Government (NTG) has determined that the gas industry should pay for the costs of the SREBA. The NTG also determined that, in order to reduce a potentially significant disincentive for the industry while it is in the exploration phase in the Beetaloo Basin, that the costs of the SREBA would be recovered from industry once production level activities commence. The Department of Treasury and Finance are currently developing the most appropriate cost recovery model.

The SREBA baseline studies are being carried out through a combination of procurement of external research and service providers, and work being undertaken by scientific and technical staff within the Water Resources Division and Flora and Fauna Division of DEPWS. The budget for all SREBA costs was $3.337 million in 2020-21 and $8.774 million in 2021-22.

Imperial Oil and Gas Pty Ltd Environmental Management Plan

Imperial Oil and Gas Pty Ltd recently announced their intention to drill and frack up to seven new wells near Cape Crawford and Limmen Bight National Park. A project of this size would usually require a full Environmental Impact Assessment, not just an Environmental Management Plan.

8. Can you please advise if you will be requiring Imperial Oil and Gas Pty Ltd to undertake a full Environmental Impact Assessment?

Answer to Question 8

As Environment Minister, I am aware of my obligations under the *Environment Protection Act 2019* (EP Act) and will make a decision on whether or not to refer the action under s50 of the EP Act in due course.

The Environment Management Plan (EMP) is currently being assessed in accordance with the Petroleum (Environment) Regulations 2016. As part of the assessment process under the Regulations, as the Environment Minister I have formally requested, under s29B of the *Northern Territory Environment Protection Authority Act 2011*, that the Northern Territory Environment Protection Authority (NT EPA) provide advice on all EMPs received under the Regulations.

The NT EPA considers whether the EMP is appropriate for the nature and scale of the regulated activity and whether it demonstrates the regulated activity can be carried out in a manner such that environmental impacts and risks will be reduced to a level that is as low as reasonably practicable and acceptable.

9. Can you please advise the baseline in size and scope for projects which will require a full Environmental Impact Assessment?

Answer to Question 9

The decision as to whether any development proposal requires a full Environmental Impact Assessment is based on whether the proposed project is likely to have, or will have, a significant environmental impact. This test is defined in section 11 of the EP Act, which states a significant environmental impact is considered with respect to the context and intensity of the impact, and the sensitivity, value and quality of the environment impacted on and the duration, magnitude and geographic extent of the impact. The same test is applied to all development proposals. The NT EPA has released guidance material about when a proposal should be referred for the NT EPA for consideration.

Emissions Offsetting

Recommendation 9.8 of the Pepper Inquiry was that "That there is no net increase in the life cycle GHG (Green House Gas) emissions emitted in Australia from any onshore shale gas produced in the Northern Territory".

10. Please explain how the Northern Territory government is planning to address recommendation 9.8 of the Pepper Inquiry.

11. Please explain the timeframes in which the Northern Territory government is planning to address recommendation 9.8 of the Pepper Inquiry.

Answer to Question 10

The Pepper Inquiry charged both the NT and Australian governments with implementing recommendation 9.8. The NTG continues to engage with the Australian Government on implementation of recommendation 9.8 while it implements measures that are within its sphere of control.

The NTG has committed to an economy-wide target of net zero GHG emissions by 2050, and a target of 50% renewable energy for electricity consumed from grid-connected installations by 2030. These policies frame the NT's approach to decarbonising the economy, as recommended by the Territory Economic Reconstruction Committee (TERC). A significant amount of work is underway to implement each of these commitments. Actions relevant to the onshore gas industry and implementation of recommendation 9.8 include:

- The Petroleum (Environment) Regulations 2016 require the approval of an EMP before petroleum activities can take place. EMPs and the Minister for Environment's decision to approve them consider GHG emissions and their management (at this stage, limited to emissions from exploration activity). Interest holders must comply with a code of practice that establishes minimum standards for methane leak detection and monitoring of fugitive emissions from wells, processing facilities and other upstream infrastructure associated with gas production in onshore shale gas fields.
- The EP Act commenced mid-2020. It reforms the NT's environmental impact assessment process and establishes an environmental approval for projects that have the potential to have a significant impact on the environment. The EP Act requires the impacts of a changing climate (including GHG emissions) be considered in the assessment and approval process.
- NT emissions profiling and trajectory analysis to inform an emissions reduction strategy that establishes interim targets and delivers the NT's development and GHG emissions targets (aligned with TERC recommendation E4). The emissions reduction strategy is due to be finalised by mid-2022.
- Negotiating a 10-year energy and emissions bilateral agreement with the Australian government to increase the supply of NT gas, ensure reliable low cost power and increase renewables penetration, create jobs and deliver emission reductions.

- Drafting a policy that establishes requirements for the management of GHG emissions from new and expanding large GHG emitters. Proposals with significant GHG emissions would be required through an environmental authorisation to develop a GHG abatement plan that includes emission reduction targets and measures to achieve them. The policy is expected to be finalised Q3 2021.
- NT Offsets Principles have been approved and are guiding the development of a GHG Emissions Offsets policy. A draft policy is expected to be released for comment Q3 2021. The GHG Emissions Offsets Policy will establish rules for the application of greenhouse gas emissions offsets to compensate for unavoidable emissions produced by development projects in the NT.
- Participating in a GISERA project investigating the relationship between demand and supply for carbon credits and options to address recommendation 9.8. The project will report at the end of 2021.
- Undertaking a carbon industry feasibility study to map and inform carbon industry development and the development of a Land Abatement Program to increase the generation of carbon credits in the Territory.
- Investigating options to reduce emissions from routine flaring during production.
- Collaborating with industry and the Australian government to progress carbon capture, use and storage technology in the NT.

Answer to Question 11

The NTG is implementing measures to address recommendation 9.8 in accordance with the timeframes discussed above. The recommendations of the Pepper Inquiry must be implemented before the grant of any further production approvals.

Environmental Management Plans

Recommendation 14.15 of the Pepper Inquiry stated that prior to the grant of any further exploration approvals, all draft Environment Management Plans for hydraulic fracturing must be published in print and online and available for public comment prior to Ministerial approval. The “Have Your Say” website replaced newspaper notifications for major projects in the Northern Territory from the end of March 2021.

12. Please explain how the public can access information on planned Exploration Permits and Environmental Management Plans if the only publication of this data is on the “Have Your Say” website?

Answer to Question 12

Exploration Permits are petroleum titles that are managed by the Minister for Resources under the *Petroleum Act 1984*.

The Petroleum (Environment) Regulations 2016 allows the Minister for Environment to publish a plan in any manner considered appropriate.

The plans are, and always have been, published on the DEPWS website. DEPWS has never received a request to access a plan in a different way.

The only change that has been made is to have the notice that the plan has been published posted on Have Your Say instead of in the newspaper.

Using “Have Your Say” provides a greater opportunity for the public to comment on an EMP, as the notice remains on the Have Your Say website for the full 28 days, unlike a print media advertisement, which was only available on a single day.

DEPWS is committed to ensuring the notice reaches as many people as possible. Over 1600 people recently commented on Imperial’s EMP, indicating the effectiveness of this approach.

13. If people do not have reliable excess to the internet, please explain what, if any, other sources of information are available to parties interested in the Environmental Management Plans?

Answer to Question 13

The notices that EMPs are available for comment go on Have Your Say and the DEPWS website. Further, people who subscribe to the HFI Community Bulletin also get an email notification.

We understand that EMPs can be very large files and may require reliable internet access to download.

Any party that does not have reliable access to the internet can contact DEPWS and arrangements can be made to view a hard copy of the EMP at the Department’s offices.

DEPWS will receive comment on an EMP in any written form.