Darwin – Environmental Defenders office

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Speakers: David Morris

David Morris: Good morning, thank you for the opportunity my name is David Morris I'm the principal lawyer of the environmental defenders' office. We're a community legal centre that attempts despite our meagre resources to provide for free legal services throughout the Northern Territory on environmental matters of public interest. And I've previously presented to this panel and previously provided comments on the draft patrolling environmental regulations and the previous Hawk reports.

I don't intend to go over the matters that I included in my submission, nor do I intend to go over the matters that I've included in previous comments and I'll take them as read and its clear from the interim report that they have been. So, these submissions is relatively confined, they're confined to a response to the panels' interim report. I want to note today that I, did receive the request to make some submissions in relations to methane emissions and the rigger around those. I don't propose to address those today, I don't feel as though I have had a significant period of time to adequately consider those and formulate a response. So I will provide that in writing in the time required.

Hon. Justice Rachel Pepper: That is absolutely fine, I acknowledge the time frame was short but whenever you are ready.

David Morris: I want to speak just broadly about regulative reform and agree with the submission of the Department of Primary Industries and Resources, that in the Northern Territory we should attempt to avoid the Queensland experience of developing legislation on the run as the industry develops, and to do that the government should ensure both the avoidance of possible environmental impacts but also for ensuring community confidence in the process that regulatory form is in place prior to operations occurring, and also that structural changes within departments and the various resourcing required to achieve that is made before operations occur as well. Those structural changes are going to be critical to ensure that the letter and intent to those regulatory forms are actually delivered on the ground.

There are a number of reforms that the panel will be aware of that will have a bearing on how this industry will be regulated in the Northern Territory.

Those reforms include, reforms to the water act, to the environmental assessment act, the waste management pollution control act and a number of others. There's a move to, an umbrella environmental protection act of the kind you might see in other jurisdictions. How those reforms will actually look, what their impact on the gas industry will be is less than clear at this stage. I'd also note that in the Department of Primary Industry and Resources submission they state that they've commenced an ongoing review of the act and their developing resource management regulations. I'm not aware of the development of resources regulation management nor what they will be designed to achieve.
So there's a degree of uncertainty about all of this ongoing reform and where we will arrive at. But what is clear from both the interim report and also from the Hawk report that preceded it, is that community confidence in this industry will live or die on the communities' belief in the ability of the regulatory regime to manage this and its potential impacts, this industry and its potential impacts. So I say again it will be paramount to ensure that these reforms are in place before operations start occurring throughout the territory and I feel like there is the potential for incremental creep, which might erode community confidence if you start seeing some areas of activity occurring before these regulatory mechanisms are put in place and I should, of course, preface this by saying this all assumes that the government makes a decision to lift the moratorium and we don't make any comment about that.

What we're saying is there should be a clear order of things. In our view, it would be desirable for this panel to make some independent recommendations to the government about that order. The interim report touches on but doesn't I think articulate in detail recommended structural changes that will be required to give effect to the recommendations this panel might make with respect to regulatory reforms. It's unclear whether the panel intends to make such recommendations. In my view, it would be a missed opportunity if in it’s in final report, the panel doesn't provide the government with independent recommendations about the bureaucratic structure and your regulatory framework should operate within.

The importance of getting this structure is apparent I think from a number of things. The first is the confusion that exists both within the community but also to some extent, within government itself about who's responsible for what. For example, there are non-transparent administrative arrangements in relation to water licencing but it's not apparent how they operate. I note in the Department of Primary Industry and Resources submissions, they say that water licencing requirements for mining and petroleum industries are taken into account within the 80-20 water licencing rules. But that's not clear from any of the water licencing documentation that I've seen which is included running a supreme court case on the matter.

Further examples of the difficulty in ascertaining who's responsibility for weed management, for example. That's a point that's noted in the interim report. There's conflicting views I think about who's responsible for localised habitat issues and potential environmental impacts or species impacts that

might occur from localised habitat disturbance. What I'm referring to then is in the Department of Environment and Natural Resources submissions, they talk about the referral of EMPs by way of notice of intent to the Northern Territory Environmental Protection Authority.

A, that's not mandated. B, the Northern Territory EPA has made it quiet clear that they don't consider individual wells to be something that would create significant environmental impact and therefore, don't proceed to consider them further by way of impact assessment or otherwise. It's unclear how that mechanism is supposed to be used to adequately address localised habitat impact. There's also unnecessary duplication that arises from multiple agencies being required to undertake compliance functions but in different areas, the same compliance functions but in different areas. We see that with the Department of Primary Industries and Resources being responsible for regulatory and enforcement matters on site and the Northern Territory EPA being responsible for those same things but offsite.

The uncertainty associated with the land release process and the potential for regulatory capture, so it will be important for the government to spend time upfront not only to amend legislation but to reorganise and resource various departments and agencies responsible for approvals. The key structural changes that we see as desirable are the removal of compliance functions from the Department of Primary Industries and Resources and the establishment of a petroleum compliance unit within the Northern Territory EPA.

This approach is different from the one that you see in South Australia and Western Australia where they have a one-stop shop similar to the one we have here. The approach that I urge is necessarily a more resource-intensive one because both the Department of Primary Industries and Resources and the Northern Territory EPA will be required to have staff with technical expertise in petroleum activities. Whereas at the moment, those staff are currently centralised within the Department of Primary Industries and Resources.

Despite those barriers being increased resourcing requirements, I believe it's necessary to achieve proper enforcement of the gas industry. That's based on previous experience, comments of the Northern Territory EPA in relation to other activities and also to achieve community confidence in the process, which again, is vital. I'd also note that that increase in burden, which might be playing on the mind of some panel members will be offset by the elimination of the current inefficiency in the regulatory regime which sees the NTEPA, presumably without petroleum experience, being responsible for offsite impacts which in the case of a well, might not be all that far from the operation at all.

So there's potential there for an increased efficiency by placing that regulatory unit within the NTEPA. Also, I'd note that it is a current government commitment to remove that demarcation between regulation on and offsite impacts. I want to move now to a brief discussion about the structure of how approvals are given. It seems to me desirable to separate

tenure from operational approvals. In relation to tenure, I'd suggest that tenure should only be granted after the following questions are answered, first would be, "Is the area applied for a no-go zone or a restricted work area?" If no, you would then ask, "Is the applicant a fit and proper person having regard to their environmental history?"

Then if yes, "Is this the best applicant applying under the current competitive bidding process which is the way in which currently, exploration permits are issued. This I think would avoid complications associated with the current and historic land release process. But I note that I haven't considered in any detail the implications that might come from changing the way tenure's released and indeed the necessity to perhaps claw back licences which have already been issued. I would comment now on the land release process. It's described at Part 14.2.2 of the ... 14.4.2.2 of the interim report, the current department approach to tenure approval seem to be an oxymoron to me. We concur with the panel's stated concerns in this regard.

On the one hand, the department states that the 2014 Land Release Policy will apply to applications being currently assessed, which will presumably have the effect of making some of those applications or parts of them null and void. On the other hand, they state that natural justice must be provided so as to allow the negotiating process to be completed and to avoid the risk of litigation and loss of opportunity for traditional owners to reach agreement with the applicant.

It begs the question, "Agreement about what?" It's difficult to think of a situation where it's beneficial for either TOs or for industry to continue negotiating an agreement over an area which will not be approved because of the application of the Land Release Policy or through the implementations of this inquiry in relation to no-go zones. The current Land Release Policy is less than exact in its language and in its application. It excludes the release for oil and gas exploration in the following areas, urban-living areas including rural residential areas. I'm not sure whether that extends to aboriginal outstations, remote communities such as Maningrida, just to provide one example. That's not clear.

Areas of intensive agriculture, I don't intend to make any submissions about what that might mean. Others would be better placed to do that. I would make some submissions, I don't intend to make submissions about areas of cultural significance. Again, I think that the land councils and the Aboriginal Areas Protection Authority are better placed to make submissions about what that might mean in the context to the Land Release Policy. I would make some submissions about the many of high ecological value.

I'd note that the policy has no legislative force. I'd suggest that giving rigour and efficacy to this policy would be done best by integrating it through the regulatory regime. In relation to areas of high ecological value, the Northern Territory has 67 sites formally recognised as being of high significance for biodiversity conservation, has 24 national parks, 73 nature reserves, conservation areas, historical reserves and marine parks. The interim report notes at Part 8.3.1 that it's industry policy to avoid national parks and other

conservation reserves. Now, that might be true but it's also true that industry have applied for and conducted exploration activities within national parks. I have specific familiarity with that in relation to Watarrka National Park, which was recently the subject of a reserved block under Section 9 of the act.

Given the various risks and uncertainties identified throughout the interim report, it would be in our submission, inconsistent with the objects of the Land Release Policy for gas operations to occur within those parks and reserves. We note the comments of Dr. Anita Barley who made a submission which was next to the EDO submission where it said, "It's reasonable to assume that existing parks and reserves should form the cornerstone of any proposal for priority no-go areas. In general, the infrastructure associated with large scale shale gas development is not compatible in areas where conservation management is a priority or in those areas containing significant scenic or cultural values."

Of outmost importance with respect to this part of the Land Release Policy with high areas which concerns excluding areas of high ecological value, it's of upmost importance to recommend that ... It's upmost important to recognise the current information deficiencies that we have in large parts of the Northern Territory. For example, the interim reports notes that areas of high ecological value in the majority are located outside of identified shale basins. But I think it's instructive to note another comment in the interim report which is due to its vast size and remoteness, most of the Northern Territory has never been systematically surveyed for plants and animals.

Consequently, the distribution of most species are known only in general terms at best, and there is very limited knowledge of geographic patterns of diversity and endemism. Information is particularly scanned for terrestrial invertebrates which represent the great majority of the NT's faunal species and play critical roles in the function of ecosystems. To add to that, we'd note that despite provision being made in the Territory Parks and Wildlife Conservation Act for the Declaration of Essential Habitats, no such declarations have been made. We'd also note the comments of Dr. Matthew Koloff in another report which was next to our submission, which talked about extensive but poorly documented water refugio areas within the Beetleloo Sub-basin which are yet to be adequately surveyed.

To say that those areas of high ecological significance don't occur within currently identified shale basins I think is inaccurate because of the information gaps that exist. So, that's what I want to say about tenure and the importance of identifying no-go zones before a tenure is issued. I'll now move to operational activities. I think my views or the EDO's views on a purely objective based regulation of the gas industry, which is currently enshrined in the regulations is fairly well-known. I don't think it's adequate on its own to effectively manage the industry. I do believe that there should be prescriptive requirements in relation to some aspects of the industry.

I raised in my submission the limitations of an objective-based approach in the face of scientific uncertainty. I raised that by reference to an article by

Professor Alan Randall, Towards a Risk Management Framework for Novel Interventions. In that article, Randall discusses the difficulty of applying ordinary risk management approaches to new technologies. In that case, he's talking about coal seam gas. In a recent article, which I'll provide to the panel when I'm providing the information requested by letter last week, I'll provide a recent article by Murray Andre and Prasad, which similarly examines this difficulty but does so specifically in relation to risk-based approaches for hydraulic fracturing. In their view, the main weakness in a risk management approach is the tendency to defer risk management intervention until the innovation has been implemented and harmful consequences established.

Essentially, what they're saying is it's difficult to use a risk management framework when you can't readily quantify the risk. Because of that, the EDO urges in addition to the approval of an EMP under the regulations, the requirements for a code of practise or other prescriptive measures, for well integrity, baseline testing both of methane levels in ground water but also of emissions. I'll go into further detail about that in my supplementary submission. The use and disposal of water, chemical ... and chemical disclosure. One of the things that has been occurring to me in terms of adding additional rigour to the process of approving E & Ps would be to use a structure similar to one you might see in planning, where a development consent body is required to seek the views of relevant groups within governmental service authorities. So, for example, you know, in the case of a residential apartment building, the development consent authority may require a traffic management plan from the local council or some kind of sewerage plan, those types of things. So, applied to this situation, what might be required would be that the E & P be provided to various groups within in government. For example, the weed management branch for their comment on the E & P, and those comments must then be taken into account by the minister, prior to approval.

And that seems to me to be desirable, particularly, if you're looking at compliance functions being separated from the approval function. If you had the NTPI's Compliance branch being required to comment on a submitted E & P, they could make comment about any difficulties they saw in terms of ensuring compliance with that. And I'd propose to try and provide a little more clarity about that in my supplementary submission because, it's an idea that I've just started turning over in my mind.

The panel in the interim report touches on the operationalization of the precautionary principle, and our primary submission was that one of the best vehicles for doing that was the inclusion of merit review functions in the Act, and were encouraged that the interim report seems to support the inclusion of those mechanisms in a new regulatory regime. We'd add three additional vehicles or mechanisms, if you like, for operationalising the precautionary principle.

The first is baseline water and emissions monitoring. The article I've discussed a few moments ago discusses that commonly a lack of baseline data has frustrated litigation in the United States, and I'd note that that

frustration would surely work both ways. But regulations of this nature are seen in other jurisdictions. 2015 amendments to the United Kingdom's Petroleum Act saw the introduction of a requirement that the secretary of state must be satisfied of certain conditions being met prior to the consent of a hydraulic fracturing operation, and that includes the requirement that the level of methane in groundwater be monitored for a period of 12 months before hydraulic fracturing begins. The requirements for baseline monitoring are also supported by the report of the Western Australian Legislative Council's Standing Committee on Environment and Public Affairs, and I note that that's referenced in the interim report.

In my supplementary submission, in terms of methane emissions, I'll also talk about methane emissions in groundwater and talk about some specific technical requirements of those baseline, of what we say should be included in those baseline testing requirements. Let that include the record of specific isotonic compositions of that methane.

The second mechanism is the use of regional management plans. And we're encouraged that pages 59 and 70, the panel indicates it's intention to consider further the utility and need for a bi-regional assessment of the Beetaloo Sub-basin. And one option may be to consider using the Strategic Impact Assessment Provisions in the Environmental Impact Assessment Act or a subsequent act following reform, and, hopefully, the subsequent act will provide better, make for better provisions for strategic impact assessments. But I think that's particularly important, because it reflects that some of the impacts are not going to be unique to this industry, things like edge effects, habitat destruction are also impacted upon by land clearing by pastoralists, for example, and so, when you're considering a load on the system, it's worthwhile considering all of the pressures that exist upon it, not just the operation of the oil and gas industry.

But we do support a bi-regional assessment of Beetaloo Sub-basin, and we understand that it's the most prospective area, and therefore, it's the location that is most pressing for that kind of information. And we'd suggest that the regulatory framework would benefit from a general requirement for bi-regional assessments to be informed by that comprehensive baseline data. It is an effective way to operationalise the precautionary principle, and that point was noted by Chief Justice Preston in Telstra Corporation versus Hornsby Shire Council.

We note that bi-regional assessments are a key tool used by the Independent Expert Scientific Committee on coal seam gas and large coal mining development established under the EPBC Act. That particular body provides advice to the federal minister on potential water impacts from those operations, but as noted in the interim report in our previous submissions, there is no such trigger under the EPBC Act for shale gas developments. And, so, the potential for bi-regional assessment to occur via that body is not possible. Nor is it possible for this panel to make recommendations for changes to the EPBC Act or perhaps it is, but what the federal government thinks of that is less clear. But we would recommend that a trigger of that nature be included in the EPBC Act, and in the absence

of that, there should be a similar type of mechanism within the Northern Territory framework.

We understand from reading the interim report that the panel has been briefed by the Commonwealth on the use of bi-regional assessments, and will be obtaining further advice in this regard. We would note that while bi-regional assessments used by that body can find the impact on water resources, we don't think that any bi-regional assessment of the Beetaloo Sub-basin should be so confined. It should also look at species, habitats, those types of issues. And we'd also argue that ground-truthing of desktop surveys would be particularly important in the Northern Territory, where there's, in some cases, an almost complete absence of knowledge.

We're also encouraged that the panel will be engaging with the Alberta Regulator to further investigate the potential for regulation, and whether that may overcome some of the difficulties that say, the EPA in western Australia identified that region-wide studies are beyond the capacity of individual proponents.

The final thing we wish to say about operationalising the precautionary principle is that there needs to be greater clarity around water licencing requirements. The current framework for water licencing lacks rigour, and what I've observed in the few years that I've been in the Northern Territory has been both changes in the modelling associated with water licencing. There was a truncation of the model of the period from 100 years to 30 years, which was a wetter period, and therefore, meant that there was a much larger consumptive pool from which to draw water from. We've also seen the issuing of water licences above what is the consumptive yield, even under that larger entitlement body and the use of conditions on licences to either allow or not allow the full extraction of them in wetter or dryer years, as the case may be. There's very little transparency about that, and there's also very little way for the government to necessarily enforce those things.

And I'd just note that, you know, some of the things which have been allowed would seem to me to be an unacceptable impact. And for example, in a water licencing decision in relation to the Ulu Aquifer, the water controller noted that the extraction of the licenced amounts were modelled to have an impact on cease flow events of Roper River, which is near Ngukurr. In 13 years out of the 30 year period modelled between 1984 and 2013, the predictions were that flow would cease for less than ten days in four years, more than ten days but less than 30 years in another four years and would exceed 30 days in five years, being 39 days, 40 days, 48 days, 62 days and 90 days. It seems extraordinary that you would issue a licence in those circumstances notwithstanding the conditions you might place on it.

The only other thing that I wish to really talk about is that the impacts, at arriving on a final view of the land impacts of industry, I think that the panel should consider more deeply the interrelated nature of impacts, particularly, the interrelation between weeds, changed fire regimes, human activities and feral animals. It seems to me that the panel finds that most of those impacts in there, in isolation will be either of high consequence or medium

consequence, but they're not discussed in any way, particularly, in terms of their interrelationship.

And I note that Mornington Sanctuary in the Kimberley places a specific emphasis in terms of managing that sanctuary on the interrelated nature of those things, the fact that change at fire regimes provide additional opportunities for feral animals and that interrelationship has greater consequences for native animals.

Finally, in relation to sacred sites and Aboriginal people's involvement in the process, the interim report makes clear the necessity for accurate information to be provided to Aboriginal people, and we fully support that, but we note the difficulty of that requirement where there's information inconsistencies between government and industry even being provided to this panel. And this cuts across a number of different areas, the quality of water use required, the number of expected wells, and well density. And, you know, I would just note that one of the comments in the interim report was that Santos estimates a surface footprint of 0.03 to 0.05 of the total development area, reducing to 0.01 to 0.02 during production following rehabilitation. This is two orders of magnitude lower than the estimations in Table 8.1 and by origin it seems unrealistically low.

So, when we're providing information or when industry and land councils are providing information to Aboriginal people, are we providing them we optimistically low numbers? Or are we providing them with a range of numbers all of which might be accurate, and indeed visual representations of all of those things too.

And we'd also just want to put on the record our support of the recommendations of the Aboriginal Areas Protection Authority, and they are supported by Gareth Lewis, the expert we engaged to inform our submission to the inquiry. Particularly, we note the need for increased time and resources to allow the Aboriginal Areas Protection Authority to effectively consult on subsurface impacts to sacred sites which might be occasioned by the gas industry and the need for industry to meet those additional consultation costs.

That concludes what I want to say this morning, and I'm happy to take any questions the panel might have, and if I can't answer them today, I'll undertake to take them on notice.

Hon. Justice Rachel Pepper: Again, thank you very much, Mr. Morris, for your detailed and very excellent presentation, as ever. Just a few notes, or I guess comments really, well, perhaps better accurate is three questions. In terms of the structural reforms of the various regulatory agencies, absolutely, that must occur. That will be a recommendation or multiple recommendations. You can be assured of that from the panel. But, again, and I'm not suggesting any chance of this now, but if you have any suggestions, or if there are any particular models either overseas or within Australia that you could commend to us, we would certainly appreciate that. I think your comments

about the multiple layers of regulatory oversight and the efficiency to which that's undertaken currently are very valid. That was the first thing.

The second thing was, oh, I guess it's really, again, in terms of the structural reforms, and this probably picks up the comments that I've just made, again, we will, certainly, be making recommendations. Again, suggestions are welcome.

And finally, again, I guess, and this is perhaps a more substantial question in which you probably cannot answer now, you said that before operations start, I think that's the words you used, that all of these regulatory reforms need to be in place or at least, I'd presume, certainly, well advanced and cleared by the government. Did you mean expiration or production or?

David Morris: I'd, probably, wouldn't want to reduce it to such a simple answer as one or the other.

Hon. Justice Rachel Pepper: No. That's fair enough. That's fair enough.

David Morris: I'd probably prefer to give it some thought in terms of what might be required before exploration or what might be required before production.

Hon. Justice Rachel Pepper: But I think it might be, obviously, different requirements before each. It's the first point to make, and there will be a lag between, again, if the government, a matter for the government if it lifts a moratorium, there will be a lag between sort of, you know, the exploration phase and then the production phase of at least probably three to five years, based on current estimates.

David Morris: Indeed. It does seem to me, in terms of looking at, for example, the Department of Environment's submission, which talked about localised habitat impacts, in the absence of information about what those habitats are, you would want to at least have some kind of understanding about that before you would even approve exploration, which might occasion the clearing of important habitat. Perhaps that could be dealt with by way of some kind of localised report but you'd want to make sure that was happening.

Hon. Justice Rachel Pepper: Yes. Fair enough. I think Doctor Ritchie was the first person with his finger up.

Dr David Ritchie: Thank you. Sorry. Yes, Mr Morris, I'm sure you're very aware that a lot of the parks in the Northern Territory were created around accidents of tenure, so they're pasture releases or the bits that were no longer productive for pastoral use, the rocky bits that then got put into parks, so that they were not necessarily based on the environmental values or the amenity values for tourism or anything else. The Territory Government has long had a policy of all their parks being available for exploration, so that it is absolutely no problem at all issuing exploration licences on parks. The corollary of that is, of course, that there's lots of really very important micro-environments and

places of high bio-diversity significance that aren't parks, located on tenures where there are no protection at all.

I guess my point is that for us to take a position that, for us this is a starting point, all parks should be locked up might reduce the possibility for the sort of trade-offs that are necessary in the real world to get protection in other areas. I just want to put that to you as what your feelings on that might be.

David Morris: Well, certainly the current land release policy provides the flexibility to do that by just saying high ecological areas. Our submission would be that currently knowledge limitations do make that a very difficult assessment for this panel or for Government and the regulator to make, because we simply don't know where those pockets or areas which exist on pasture release or other types of land tenure might be of high ecological value. So, I guess that's one of the reasons why we're strongly supportive of a bioregional assessment of the Beetaloo Sub-Basin, which is the area likely to see the first substantial operations of the gas industry, should it be permitted.

Dr David Ritchie: Thank you.

Hon. Justice Rachel Pepper: Thank you. Yes, Dr Jones.

Dr David Jones: I note you began your presentation with the caution to avoid at all costs the need for regulatory catch up as the industry develops. I guess Queensland's a good example of that. We've had the opportunity to visit Queensland and talk to the regulators there and see what they're implementing now. Have you been following what's been happening in Queensland and do you have any comments on the current status of the systems they're implementing, and whether you think that's going to be effective? Or have they now gone too far the other way, so they've got too many levels of regulatory complexity?

David Morris: Thanks, Dr Jones. I probably have to take that question on notice and undertake to provide some thoughts on that in my supplementary submission, because I'm familiar with the land access ombudsman and the commission that they have over there, but whether or not they create too many layers of regulatory oversight and reduce efficiency, I'm not able to say at this stage, but I'm happy to take it on notice.

Dr David Jones: I also note your comment about humbug in terms of traditional communities. I think our impression is very much that humbug on the non-traditional landholders is also a significant issue. Very much a lot of their time has been taken up with interacting with all these different levels. It can actually detract from the running of their business, so that's something to bear in mind as well.

Hon. Justice Rachel Pepper: Thanks. Professor Hart.

Professor Barry Hart AM: You'll be aware that we've had a number of submissions that have suggested to us that there should be an independent authority. The question is what's the extent of its role? So, I can put to you a number of things that you brought up properly to us? It seemed to me you were suggesting that the compliance function should go to the EPA. You talked about just then and in detail Bioregional Assessments. You talked about the development planning for a regional management plan and you talked about baseline surveys. So, I'm leading you a little bit here. Could I put it to you that ... are they the functions of an independent authority or is that going too far?

David Morris: Well, certainly if you look at the approach taken by the EPBC Act, they've seen it desirable to have, I guess, an independent body responsible for those bioregional assessments and there does seem to me to be some value in that. I wouldn't necessarily think that that would be something you would require of the NTPA. I think that their role should be confined to compliance activities as opposed to assessment activities, if you like, on a bioregional level.

Professor Barry Hart AM: So let's go to the planning. It's been suggested to us also that there needs to be a strategic approach to this new industry, a strategic roll-out, for example. Who does that? Take it on notice, if you like, because we'd like some real thought.

David Morris: Yeah. I think I'd like to think more deeply about it.

Professor Barry Hart AM: Yeah, okay.

Hon. Justice Rachel Pepper: And something we're struggling with is how to ... I think we already flagged in the interim report that we're likely to recommend reorganisation of the regulatory bodies and we are currently, I guess not struggling, it might be too strong a word, but contemplating how that might be best effected in the Northern Territory context. So, again whatever assistance you can provide, even if it's just saying, "Look at this model. Look at this jurisdiction." We would be very grateful for that, Mr Morris. Yes.

Professor Barry Hart AM: And can I also just add to that, Dr Jones talked about the Queensland experience, which has come from a different framework. But it would be good if you could have a look at those, Gas Fields Commission and Ombudsman and so forth. Your thoughts on whether that's the way to go or another way is better. Thanks.

David Morris: Okay.

Hon. Justice Rachel Pepper: Anyone else? Yes.

Dr Vaughan Beck AM: If I may, just picking up on the discussion that we've had. During your presentation, this morning, you did mention about looking, I think it was, from the principles of planning. You did start to talk about a development consent authority and I'm just wondering whether you want to elaborate on that or is that something you're going to give some more detail in your supplementary submission?

David Morris: Sure, I'm happy to do both but I think I may have created some confusion by using that term. I think really what I was suggesting was that under your current environmental regulations where the Minister is required to consider and approve an EMP, the matters at the moment he's currently required are set out under Regulation 9 as an approval criteria, and I was suggesting that potentially you could include further things that he must consider under that approval criteria. For example, the comments of the weed management branch of the Department of Environment and Natural Resources, to add some rigour to that, because it's not clear to me whether the Department of Primary Industries and Resources has that expertise in relation to weed management per se, and yet they're the ones that will presumably be reviewing an environmental management plan and providing advice to the Minister about whether or not he should approve it or otherwise.

Hon. Justice Rachel Pepper: Did you have in mind, I just I guess again reference out for comment, or did you have in mind something perhaps a bit stronger, and I guess again I'm drawing from my New South Wales experience, some sort of concurrent approval process?

David Morris: Again, it's probably something I'd take on notice. I think the way I'd sort of thought about it over the weekend was not a concurrent approval process. It was more of a report or a comment that would be considered by the minister and a mandatory requirement for him to consider those additional reports. It seemed to me that it might clarify some of the roles and responsibilities of those various areas that exist within government but don't necessarily sit within the department responsible for issuing an approval.

Hon. Justice Rachel Pepper: Yes. Dr Jones.

Dr David Jones: Two of the terms we're wrestling with, I guess, is ALARP and acceptable. Those two seem to be related in the approvals process. I wonder if you've got any thoughts or comments on how you might see those playing out in practise, particularly from an enforcement or legal perspective.

David Morris: Well, the article that I'm planning on providing to the panel actually talks about the difficulty with using an ALARP or acceptable, when the risks of a particular process are evolving or unknown at this particular point in time. That's why I would urge precautionary mechanisms to be included, so that you use ALARP for risks that you can adequately identify and manage, and

then you use a precautionary approach for those ones that you can't know whether you're going to be reducing them to as low as reasonably practicable, and you can't know whether they're going to be acceptable, because you just don't have the sufficient data.

Dr David Jones: One of the things I guess we're wrestling with is the use of the generic term acceptable. For example, does one apply that on a territory-wide basis, when it's a lowest or highest common denominator, however you view it, and say, "That is acceptable," or is it very much regionally specific? I suspect the letter, because each region has its own particular combinations of social, environmental and other contexts.

David Morris: It might depend on which aspect of the process you were talking about. So, for example, if you were talking about methane emissions and contributions to greenhouse gases, that would presumably be on a territory-wide scale or a whole of industry scale. Whereas if you're talking about localised habitat impacts, then what's acceptable will clearly be better referenced by looking at an individual specific site. So that's the way I'd probably answer that by saying in some cases wide and, in others, the other.

Hon. Justice Rachel Pepper: No, that makes sense. Yes.

Professor Barry Hart AM: Thanks for that comment on the bioregional assessment being largely focused on water. We'd agree. We believe it's underdone from a terrestrial point of view. I should also note that I'm pretty sure it is the first of the bioregional assessments that's just been published, Condamine Maranoa area, maybe a few weeks, couple of weeks ago. I'm pretty sure that was the first one.

Dr David Jones: That's correct.

Professor Barry Hart AM: Yeah. So, it's been a long time in the development, probably three years, I guess. They are very rigorous but, as you rightly point out, they may be a little too focused.

Hon. Justice Rachel Pepper: Yes. Dr Anderson.

Dr Alan Andersen: Yes, one issue that the panel's identified and hasn't received a lot of discussion here, and that is the high levels of heavy vehicle traffic that are inevitably associated with shale gas developments, particularly during the establishment phase. I'm just wondering if you've got any thoughts how that might be managed. The impacts can be really varied, ranging from amenity value, obviously ... tourists coming up and down the Stuart Highway for an outback experience. It's not the sort of thing they want to be seeing is just convoy after convoy of heavy trucks. ... through to public health in terms of accidents and things. Whether you've got any thoughts about how that might be managed. I know it's sort of off the cuff but whether you could perhaps give some consideration to that in your written comments later, that would be very helpful.

David Morris: Indeed, I'd be very happy to take it on notice and include it in the supplementary that we provide.

Dr Alan Andersen: Yeah, thank you.

David Morris: Yeah, thank you.

Hon. Justice Rachel Pepper: Anyone else? No. Again, Mr Morris, I can't thank you enough for your excellent presentation. I look forward to your further written work. I appreciate you have many demands on your time and very few resources, but, obviously, lodging that submission within enough time so that we can incorporate it into our next document would be of considerable assistance. Thank you very much again.