Environmental Defenders Office – Hearing Transcript

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Darwin Convention Centre, Darwin

Speaker: David Morris

David Morris: The EDO is a community legal service that provides free legal advice, representation and education to members of the Northern Territory who generally otherwise unable to afford legal assistance. I've been in this role for coming up to four years now. During that period, this issue has been front of mind for myself and many of my clients throughout that entire period. I've been very fortunate to present on this issue and the regulatory regime that regulates oil and gas in the Northern Territory to the central land council to the northern land council and to other community groups throughout the territory.

I don't view the EDOs role as to take a position on this one, one way or the other. My view is that our role is to put forward what we say is the best practise regulatory regime in the event that it is determined by this panel and then by government that this is an appropriate activity to take place in the Northern Territory. In doing that, it's crucial that the recommendations that I make, the submissions that I make are informed by science. I'm not a scientist, but I've read broadly on this topic. The first point that I want to make to you is that I found it very difficult to come to any degree of certainty in relation to the impact or otherwise that this process may or may not have.

I read an article the other night that suggested that the emissions of methane from leaking of wells is incredibly significant and should be a major impact that's addressed and has an associated risk with this process and then I read another article that said, the impacts of methane leakage and emissions from wells is insignificant and isn't likely to have an impact on climate change to any real degree. That's but one example of where I've seen conflicting scientistic reports on various impacts and issues associated with the process of the oil and gas industry and unconventional hydraulic fracturing.

That point, I think, was also acknowledged, this morning, by Dr. David Close of Origin, who said that, "There are numerous reports of world credentialed scientists who have arrived at different conclusions in relation to different issues and impacts associated with this process."

So, as a lawyer, I am fortunate that the law has developed a strategy to deal with what I would say is a great degree of uncertainty. That's the development of the principles of ecologically sustainable development and principles among those, the precautionary principle. I'm sure that everyone on the panel would be familiar with that, but essentially it's, I believe, a directive that you take measures

to prevent potential future harm in the absence of scientific evidence where there's a lack of full scientific certainty about what impact may or may not be in the future.

So, I would basically like to put on the record right at the outset that it is my very strong recommendation that a regulatory regime in the Northern Territory include mechanisms to operationalize the precautionary principle. That is to say, not just risk based measures, but precautionary measures in relation to this process.

I've been strongly influenced by the work of academic at Sydney University, Andrew Edgar, and I agree with his opinion that merits review is a particularly effective mechanism to operationalize the precautionary principle. That is, it makes the precautionary principle mean something more than just an exercise of ticking a box on the way to an approval. It formalises it as part, as an integral part, of the regulatory regime. I believe it has the ability to improve the consistency of decision making. Increase the quality of decision making. Develop environmental jurisprudence. Allow for judicial consideration or tribunal consideration of the interpretation of the law and how the precautionary principle should be applied and hopefully that will lead to better outcomes and the absence, in the future, of unacceptable environmental impacts of this process.

I note that the precautionary principle is often laudably included as an object of legislation, but it has been criticised that it simply becomes one element of the decision making process. It is very easy for a decision maker to note the precautionary principle and write a paragraph on it in their decision and that may well be enough to discharge their duties under a judicial review situation. The precautionary principle indicates that decision makers should impose measures to prevent degradation where there is scientific uncertainty and the potential for serious irreversible environmental harm. And so it, therefore, imposes more onerous requirements, because preventative measures may be required to be taken now to address that uncertainty.

I've spoken about that and I've briefly touched on the importance of including third party merits review rights in the process, but I want to turn now to the good things I see with the current Northern Territory regulatory regime. I'll then go through the things that I say would need to be improved and then, very briefly, I will go through some of the things that I would say are best practise in international jurisdictions in relation to this. I'll, of course, address these issues more comprehensively in a submission to you before the 30th of April.

So, as I've mentioned, I think that the principles of ecologically sustainable development are important. It's worthwhile recognising that the new petroleum environmental regulations brought into effect in the Northern Territory last year include principles of environmental ... ecologically sustainable development, rather, as one of their objects and one of the things that must be considered. And so, I applaud that.

I support the regulation's emphasis on the improved transparency, through the making publicly available of the environment management plans and the requirement for statement of reasons to be accompanied by your decisions. One note here and I'll touch on it a little more later on. That there is a difference between publicly available data and publicly digestible data. If you're looking to improve confidence or community confidence in a process, I would urge the government to come up with strategies to make sure that information that's provided publicly is not only accessible, but digestible. I also support the intention in the regulations for comprehensive engagement of stakeholders. More consideration needs to be taken to ensure that, again, this is not an exercise of ticking a box and there is meaningful engagement and that people are educated.

I'll now turn to my concerns with the current approach. Firstly, I'll turn my concerns to the act itself. Dr. Hunter has written a very good report on the regulations. That report doesn't, so far as I can tell, touch on the petroleum act itself of which, the regulations are, of course, subordinate to. The act still places economic interests above environmental protection. It does not reference principles of ecologically sustainable development. I would suggest that most jurisdictions in Australia now and elsewhere recognise that a fundamental element of petroleum legislation should be an objective to conserve and protect the environment. There are other issues in the act. Some of which might be best described as matters that need to be tidied up. Others, which I think are more concerning, like the fact that at the moment the way the act operates, which I believe was the case just prior to the election, an oil and gas can be authorised without going through the more stringent and new requirements of the environmental regulations by way of a directive.

So, that is, I understand that Origin’s most recent operation in the Northern Territory was approved by the government without following the procedures required under the environmental management regulations, under the petroleum environmental regulations and, therefore, there was nothing like a statement of reasons, for example, because it wasn't undertaken in accordance with the regulations. I believe the reasons that were given at the time for that was that they had made their application for a permit at a time that preceded the introduction of the regulations. There was nothing in the regulations that wouldn't have operated upon that application.

The regulations urge an approach based on principles or objectives, namely that all oil and gas operations in the Northern Territory will ensure they don't result in unacceptable environmental outcomes. They leave it to the operator to determine how to achieve those principles and objectives. There is an absence of minimum standards in the legislation. I have some concerns about the absence of minimum standards. Briefly, they're set out in the comment that I made in relation to those regulations.

But briefly, there is a high level of reliance on operators doing the right thing. Some may, others may not. The other problem with relying on acceptable environmental outcomes is that in relation to this industry, some of those outcomes may not be known for a great period of time. It's difficult to judge

whether someone has actually conducted their operation in a way that has left an acceptable environmental outcome unless you can see some way into the future. I believe that using a solely objective based approach really allows a company to take a calculated risk, essentially, about the lowest cost option to them without necessarily being the safest long-term option. As we heard from Origin this morning, once a well is abandoned and signed off by the government, it will be the responsibility of the government and the liability of the taxpayer.

I've read a number of pieces of literature in relation to principle based or objective based regulation. Some of those pieces of literature said that it's inappropriate when dealing with contextual challenges, such as, poor operators, recalcitrant operators or under resourced compliance and enforcement teams.

It puts the department at a real disadvantage, as a regulator. If, you are going on a site and trying to establish whether or not an operator is conducting their operation appropriately, in the absence of minimum standards, that's very difficult to do. Perhaps if I give an example, if you require that an operator only store flow back or produced water in tanks, it's very easy to observe if they're complying with that rule. If, you just say it's up to the operator to ensure that there are no unacceptable environmental outcomes and they've decided that an evaporative pit is appropriate, it's very difficult to enforce or determine whether there is leakage from that pit. You're really at the mercy of observing unacceptable environmental outcomes.

On the contrary, having detailed rules, provides certainty, sets out a clear standard of behaviour. They're easier to apply consistently. They're easier to enforce. I think it's important to note that in the Northern Territory we have a great deal of difficulty retaining and attracting adequately experienced qualified staff and that goes with compliance teams across the board. So, when you're dealing with that challenge, you might want to have a system that's the most easily enforceable system you can have.

On the other hand, strict rules do lead to gaps. Failure to keep pace with scientific developments and can also lead to creative compliance. Our position, which was expressed in our comment on the draught regulations was that combining an objectives approach with some minimum standards, where they're appropriate. In a hybrid approach, is the appropriate way to go forward with regulations in the Northern Territory. To put that into context, I think that there should be minimum requirements around well construction, around water management and around baseline studies.

To continue on with things I think are currently problematic with the regime. The draught regulations do not define the term, acceptable and they do not define the term, as low as reasonably practical. They place an enormous reliance on the minister making a good decision and in the absence of merits review, there is nowhere other than judicial review to interrogate the decision of the minister.

There is an absence of mandated requirements for baseline testing of groundwater, surface water and emissions. I note that these are matters, which are usually part of an application and that the government accesses those things,

but it is my very firm view that they should be mandated legislative requirements with corresponding offences for failure.

The other matter, which I'll raise now and go into a bit of detail further on is that compliance activities under the new regulations will still remain within the purview of the Department of Primary Industry and Resources.

So, mindful of the time, I'll now turn to some international developments in best practise and the terms of reference. I'm not going to go through all of these, but some of the ones that I thought might be interesting to the panel. In relation to water, it's obviously a thread that runs through all of the concerns or many of the concerns and many of the community concerns I hear are around water. I think that the legislation needs to set out very clearly in publicly available plans how much water will be used, where will it be used, where will it be gathered from and what will be done with it at the end of the process.

The new recommendations to the government should provide some guidance as to what will occur in aquifers that are already over extracted or permitted to be over extracted. There's a commitment to regulating the oil and gas industry under the current water act licencing regime, but in the case of a number of aquifers, there have been a licences issued, which exceed the sustainable yield of those aquifers. They also don't currently provide for a strategic indigenous reserve, which is an additional 10 percent of that water and there's a current commitment of this government that strategic indigenous reserves will be reintroduced. Obviously, in areas where water is scarce, the need for a precautionary approach is even greater.

I note that the US EPA has found examples of water contamination from this industry, but they have found it is not systemic. We don't have a defined aquifer interference policy like the one that exists in New South Wales and we have no other specific requirements in relation to legislative requirements in relation to distances from aquifers and things like that. Given the confidence expressed by the oil and gas industry and their processes, they may be amenable to the idea of a rebuttable presumption in legislation that if water pollution is found they're liable for it. That's the approach that's been taken in Illinois, where the hydraulic fracturing regulator act includes a reverse owner's provision for water pollution events in areas where oil and gas operations take place. Simply put, that means if you have a contaminated water body, that company is liable for it unless they can prove that they're not.

Another example of where this practise was a recommended approach was in New Brunswick prior to the ban that was placed on hydraulic fracturing and they recommended having legislative dissertations of diminished quality and reduced capacity and imposed a presumption that an oil and gas operator's responsible for replacing and restoring water supply if it is diminished in quality or supply.

Baseline testing of water is now a legislative feature of best practise in other jurisdictions. It's not a legislative requirement in the Northern Territory and it should be. It is a requirement in Colorado, for example, which is one of the legislative regimes I would encourage the inquiry to look at as an example of best

practise in the United States. It was also a major recommendation of the New Brunswick regulations before the process was ultimately banned there.

In the case of New Brunswick, the recommended approach was as follows. Water samples from all potable wells within an appropriate distance of gas well must be collected and analysed before drilling operations begin and prior to the clearing of the well pad. This was not a process that would be undertaken by the company, but instead a third party contractor engaged by the government at the cost of the operator would be required to take that sample. Testing would be analysed and then made publicly available. Testing would be analysed in a state owned government laboratory. I don't know whether we have those in the Northern Territory, but the point is that it was an independent laboratory and then would be made publicly available following that test.

In relation to emissions and air quality, best practise jurisdictions like North Dakota and Colorado placed explicit requirements on operators with relation to fugitive emissions, ambient air quality and flaring requirements. Given the uncertainty that seems to exist around the emissions from oil and gas operations, serious thought needs to be given to managing this potential impact within our regulatory regime.

In relation to waste management, I noted that the representative from APPEA, Mr. Doman, this morning, said that, "Wastewater was currently being trucked out of the Northern Territory, but that consideration would be given to the construction of a waste management plant in the event that the size of the industry here required it." I would encourage that waste management plans for all operations be publicly available and that they note how waste is to be minimised and managed. Describing the types of waste that will be transported and generated by this activity including potential radioactive material, which we know exists in the Northern Territory. Those plans should describe how waste should be handled and stored at all stages through the process and describe the methods and locations of waste treatment, reuse or disposal. I would encourage that there should be no on site disposal of waste in accordance with a number of jurisdictions within the United States who are now banning the disposal of waste on site and no on site storage of waste in evaporative ponds.

Best practise jurisdictions, for example, New Brunswick prior to it being banned and Illinois and North Dakota. I believe now prohibit the use of evaporative ponds. They require all waste, flow back water and produced water to be stored in tanks before being trucked to an appropriate facility. Colorado, I think, is widely regarded as the state in the US with the toughest air quality monitoring regime. They have legislated reporting requirements for methane and legislated lake detection programmes.

We'll move now to an issue, which has been discussed earlier today and that's in relation to what all happens in the future if something goes wrong. The well has been abandoned and signed off by the government, but nevertheless creates a legacy. The mining industry is attempting to address 100 years or more of mining legacies through a levy that is imposed upon operators in the Northern Territory and I would encourage that an orphan well fund of the kind put in place in ...

Forgive me if I pronounce this province in Canada wrong. Saskatchewan, has established an orphan well contingency fund to essentially have an insurance policy for the taxpayer in the event there are problems in the future and the previous operator is unwilling or unable or indeed doesn't exist anymore to rehabilitate or take the necessary remediate reaction.

Very quickly, I'm not going to touch on this a great deal today. I will touch on it extensively in our comment. In terms of engaging with an impact on Aboriginal culture and communities, I would like to rely on Aboriginal people to provide that advice and information to the community, but I do want to address something that I think the head of SANTOS misquoted this morning where he said that, "They can't take an operation without first obtaining a certificate from the Aboriginal areas protection authority." That's not the case. It's a voluntary scheme where they can go and get a certificate from the Aboriginal areas protection authority, which then provides them with protection from prosecution in the event a sacred site is damaged. It may well be SANTOS' approach that they do not do any activity without first obtaining an Aboriginal areas protection authority. I suspect it is. It's voluntary and we have to accept that we may not always get operators like SANTOS. We may get another operator that doesn't have that same process.

I said earlier, it's one thing to be transparent in a lot of data, but it's quite another thing to make that digestible. For example, we have mining notices, which are published every Wednesday in the Northern Territory News and then they go on to a website on the department's internet site. It's very difficult to say, search for a particular location and then say, "Has there been an application or approval for this area." Things like that can dramatically increase the ability of the community to have input into this process and have confidence in it.

In Colorado and Pennsylvania, there is a requirement for the publication, in real time, of gas well violations and failures. However, they are criticised for being difficult to understand, vague and they fail to mention the receiving environment. I would suggest that a best practise regime would feature an easy to understand and searchable database that can swiftly alert the public to problems experienced by the oil and gas operators in the Northern Territory and be able to observe the regulatory response. In Illinois, all documents submitted as part of an application are viewable by the public unless they are trade secrets.

We'll move now to regulatory capture, which is one of the terms of reference. In my view, all of the leadership in the world cannot avoid the perception problems created by having the same department responsible for the promotion and the encouraging of the industry and the licencing of the industry and the regulation and compliance activities of it. We say that this in the Northern Territory, that the Department of Mines and Energy it's now the Department of Primary Industries and Resources ran what I would suggest was a very expensive advertising campaign, which trumpeted the benefits of the oil and gas industry in the Northern Territory. It is also the body responsible for compliance of the industry and I think that's inappropriate. This is not unique. Recognition of this conflict has seen separation of those responsibilities in Canadian Arctic offshore drilling operations, in Norway, in the United Kingdom following the Piper Alpha disaster.

Indeed, we've had our own conflict issues in relation to the Montara oil disaster, which did note the conflict within that department as being a major issue that led to that disaster.

Cumulative impact to something, which interests me a lot. There are a number of loads, which go on to a landscape or an area of biodiversity per region. Whatever you want to call it. There are a number of loads and in the Northern Territory we may well have agricultural impacts, feral animal impacts and things like that. They need to all be considered in the context of this new industry, which wants to take place. I'll move very quickly; we don't have a particularly strategic approach to landscape scale it impacts.

I just wanted to raise one interesting development in international regulation, which has been play based regulation, which has been trialled by the Alberta energy regulator proposes a new set of regulations, which require a more holistic approach to the regulation of the oil and gas industry. Instead of the usual approach to issue an approval to each individual operator, they've required the operators to come together. All the operators with permits in a particular play to come together, put forward a plan, which outlines their proposal, collaboration in terms of roads, pipelines and water usage. It's hoped that in using that approach landscape, scale and cumulative impacts can be better addressed.

In terms of the Northern Territory, we need to look at land clearing. We need to look at whether the imposition or the presence of a grid places increased pressure on threatened species. Both by way of habitat fragmentation, but also by the way of the impact of feral animals. There's an interrelation that might be not always seen obvious on the surface. Other ancillary activities need to be considered. So, for example, where will the industry obtain it's propend or sand in the Northern Territory? One area in the Northern Territory where sand is currently sourced for other types of development is the Howard Sand Plains not far from Darwin and that's an area of significant ecological value and was recently the subject of an NTPA report, which criticised the way sand is extracted from that area.

In relation to no go zones, I know that SANTOs' submission today earlier was in relation to national parks being listed as green on their maps. That gives me some comfort, although I know that I was in Canberra last year, the year before actually, advocating on behalf of traditional owners who did not want an oil and gas operation to occur within Watarrka National Park. There is no current legal protection that prevents oil and gas operations within national parks or other conservation areas. I think that no go zones should really be heavily informed by science, but I would note that prior to the ban in New Brunswick, they recommended a total prohibition of the sighting of well pads in flood plains, of which we have a great number in the Northern Territory.

That concludes my submission and I'll do my best to address any questions that the panel may have. Thank you.

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

Dr. David Jones: Regulation comes at a cost and one of the more vexatious issues is, how does government fund regulation? Is propositions for industry legalese and then there could be an accusation of regulatory capture there again. How best do you think that kind of issue might be handled?

David Morris: Look, I think if the industry wants to come and generate income and profit for its shareholders from operating in the Northern Territory then it bears a great deal of the responsibility for insuring an adequately resourced regime occurs in the Northern Territory. I believe that really industry should bear much of the cost. For example, baseline testing, those types of things. Independent inspectors of wells should be cost born by industry. Industry has noted many times that social licence will be critical to operations taking place in the Northern Territory and I don't believe that social licence will occur without a proper regulatory regime that the public has confidence in. To that extent, it's really a matter for the government, if they say there have been great social benefits and great economic benefits to the Territory. To work with industry, to make sure that it's adequately resourced to a level the public is confident in.

Dr. David Jones: One thing we've heard loud and clear from our community consultations is currently a very low trust.

David Morris: Indeed.

Dr. David Jones: And disagree on the regulatory environment. How long do you think it might take to build that? What might it require?

David Morris: I think that having a strong regulatory regime in place is the first step and we don't have that at the moment. I think the second thing is that compliance with a strong regulatory regime needs to be observed and they may well take some time. I mean-

Dr. David Jones: Chicken and egg, I think.

David Morris: Sure and I think other things, like mechanisms within legislation like the third party merits review rights. If, you know that you can go and have an independent arbiter have a look at a decision made by a minister, that's going to give you a great deal of confidence in the quality of the decision making and your ability to do something about it if you are grieved by it.

Hon. Justice Rachel Pepper: That's right. Yes, Professor Hart.

Prof. Barry Hart AM: Continue on that with the regulations, you mentioned the separation of responsibilities? Go into regulation as far as from, Dr. Jones. A number of people have suggested that one of the ways in which this trust problem could be enhanced. Was it an independent regulator? Do you have any thoughts on that? Because, I think all of your suggestions all still stays within government.

David Morris: Yes, I mean, you're talking about an operator like off-scene or of that nature that you have in common with offshore type response?

Prof. Barry Hart AM: Yeah.

David Morris: Look, I haven't turned my mind to it, particularly. I think that compliance activity should take place within the NTPA, which is supposedly, an independent agency of government and I believe that would assist in terms of confidence.

Prof. Barry Hart AM: Okay, thank you.

David Morris: Does that answer your question?

Prof. Barry Hart AM: Yeah, yeah absolutely.

Hon. Justice Rachel Pepper: It's become apparent to the panel that once consent is given by Aboriginal peoples under the Aboriginal land rights act, then that follows through the entire process from exploration through to production. Of course, exploration is just as it sounds. It's exploration and you don't necessarily have an idea of the scope of the production and therefore, the scope of the impact and therefore, the scope of what you're actually consulting to.

David Morris: Yes.

Hon. Justice Rachel Pepper: You got any suggestions on how that might be ameliorated. Bearing in mind, it's common piece of legislation.

David Morris: One way of addressing it may require an additional Veto right to be given to Aboriginal land owners or title holders of Aboriginal land. Indeed, all title holders, if you like, at the stage where productions licence is sought. If, that were ... I agree that it places an enormous burden on Aboriginal people at the earliest stage, where given the presentations I've witnessed this morning, there's very little idea or very little certainty around what the ultimate production will look like. I believe that there is engagement or there is engagement with Aboriginal people at the stage where they need to seek a production licence. But, if someone's coming to you and asking to drill two wells by way of exploration and then at some stage later, they want to put 100 on your piece of land. That's a very different set of circumstances and at that stage you have no ability to say no to it.

The other thing that I would say is that, my experience has been that there isn't understanding across the board of what is signed up to following exploration consultations. There isn't an understanding across the board of what an oil and gas field might look like and that's not surprising, because I don't think any of us here are incredibly enlightened as to what a full scale oil and gas operation in the Northern Territory might look like. I mean, I did see one of the plans by SANTOS.

They spoke this morning about the extent to which their full scale production might look like, but I think that's the first I've heard of that.

Hon. Justice Rachel Pepper: Thank you. Yes, Dr. Beck?

Dr. Vaughan Beck: You mentioned earlier that there may be ... May be desirable to combine both prescriptive minimum standards and objective regulations.

David Morris: Yes.

Dr. Vaughan Beck: If, that system was invoked, how would you decide to direct one operator to one regime and another operator to another regime?

David Morris: I don't think it would apply in that way. I think that you would have an overarching standard that operators are meant to abide by. To ensure that their operations don't have unacceptable environmental impacts and that their required to reduce their risk to as low as reasonable practicable. However, there would also be standards. For example, in terms of the concrete used in wells, the types of casing used, the storage facilities for waste water. Those types of things. I actually see them as operating in parallel, as opposed to operating as a different requirement on a different operator. I know that South Australia takes a somewhat varied approach depending on the operator that they have. Imposing a higher regulatory burden on an operator they deem to be more risky and lower regulatory burden on an operator they deem to be of lower risk.

Dr. Vaughan Beck: Can we just explore this a little further?

David Morris: Sure.

Dr. Vaughan Beck: You've got two systems and you're going to invoke both of them. Simultaneously, I think you said, in parallel.

David Morris: I don't- Yeah. I don't see it as being inconsistent. At the moment, we have say for example, in mining legislation, an obligation that operators take all reasonable steps to avoid environmental harm and to not create unacceptable environmental outcomes and there's penalties associated with that. Then there's specific requirements under mining management plans is to have that operation must take place. There is, in effect, two triggers for enforcement.

Dr. Vaughan Beck: That can lead to some confusion if somebody's trying to demonstrate compliance with objective based requirements. There's never ever going to be total alignment between prescriptive requirements and objective requirements.

David Morris: The way I see it is you identify certain things that you ... There are many moving parts in an oil and gas operation and if you identify specific areas of risk, water management or aquifer interference management and say, well construction and you say, we're going to have minimum standards for these and if you fail to comply with those, that's an offence. There will be other matters in relation to it that still require an operator to take all reasonable steps and to reduce their

potential impact to as low as reasonably practicable and to avoid unacceptable environmental impacts.

Hon. Justice Rachel Pepper: And indeed you can have both. For example, in relation to the construction of a well, you can have your minimum prescriptions and your minimum requirements. But, in addition to that, you must also adhere to leading practise and therefore, that imposes on the companies at least a core minimum. But, as the science evolves, that they must therefore improve above and beyond that minimum.

David Morris: That's right, it's designed ... I think the hybrid approach is designed to ensure you that these easily enforceable, easily identifiable contraventions or sets of rules that you need complied with. But, it also allows flexibility for people to upgrade their own operations should they see fit to do so. I'm sorry if I haven't explained that well and I hope that I address it more comprehensively in my written submission.

Dr Vaughan Beck: We look forward to it. Thank you.

Hon. Justice Rachel Pepper: Any last questions? Professor Hart last question.

Prof. Barry Hart AM: Last question. If I understood, you talked about strategic approach and again if I understood it correctly, you wouldn't see just individual agreements, but more collaborative of the number of companies that might wish to get into a particular area. Have I interpreted that right?

David Morris: I'm not sure I formed a full some view on that, but I've raised it merely as an interesting way that another jurisdiction is looking at to regulate areas over a landscape. So, fitting in all of the pressures or load onto a particular landscape and requiring companies with interests within that area to come together and explain how their cumulative impacts are going to be acceptable. It seems to me that, you know, an operation like this where you're going to have maybe potentially a large number of wells spread over a vast area. It's appropriate to look at it holistically, as opposed to on a one by one type approach, which limits the cumulative assessment, the cumulative assessment.

Prof. Barry Hart AM: It's very attractive to me, but I'm trying to work out how it would actually work.

David Morris: Well, I'll certainly provide some more detail around the way Alberta did that in their -

Prof. Barry Hart AM: Excellent.

David Morris: -in their trial run essentially.

Prof. Barry Hart AM: Thank you.

Hon. Justice

Rachel Pepper: Thank you very much Mr. Morris. Thank you for your time, today.

David Morris: Thank you very much.

Hon. Justice Rachel Pepper: Thank you.