



LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

13th Assembly

ECONOMIC POLICY SCRUTINY COMMITTEE

Public Briefing Transcript

9.00 am, Wednesday, 3 April 2019

Litchfield Room, Level 3, Parliament House, Darwin

Inquiry into the Water Amendment Bill 2019

Members:

Mr Tony Sievers MLA (Chair), Member for Brennan
Ms Kate Worden MLA, Member for Sanderson
Mrs Lia Finocchiaro MLA, Member for Spillett

Witnesses:

Ms Joanne Townsend, Chief Executive Officer, Department of
Environment and Natural Resources

Mr Christopher Shaw, Executive Director, Onshore Gas Reform,
Department of Environment and Natural Resources

The committee convened at 9.02 am.

WATER AMENDMENT BILL 2019

Department of Environment and Natural Resources

Mr CHAIR: Good morning everyone and welcome to the Economic Policy Scrutiny Committee. On behalf of the committee I welcome everyone here today. We have Lia Finocchiaro and Kate Worden here on the committee. Mr Guyula is an apology and Mr Costa may ring in at some stage.

This is a public briefing for the inquiry into the Water Amendment Bill 2019. I welcome to the table to give evidence to the committee Ms Joanne Townsend, Chief Executive Officer and Mr Christopher Shaw, Executive Director of Onshore Gas Reform. Thank you for coming before the committee. We appreciate you taking the time to speak to the committee and look forward to hearing from you all.

This is a formal proceeding of the committee and the protection of parliamentary privilege and the obligation not to mislead the committee apply. This is a public briefing and is being webcast through the Assembly's website. A transcript will be made for use by the committee and may be put on the committee's website.

The purpose of this hearing is to promote public consideration of the Bill as part of its passage through the Assembly. I welcome the interest of those attending the hearing today. I note that the decorum and the procedures of the Assembly and the committee should be observed at all times.

If, at any time during the hearing, you are concerned that what you will say should not be made public, you may ask that the committee go into a closed session and take your evidence in private. Could each of you please state your name and the capacity in which you are appearing here today? Ms Townsend, if you would like to make an opening statement as well.

Ms TOWNSEND: Thank you. I am Jo Townsend and I am the Chief Executive Officer of the Department of Environment and Natural Resources. I thank the committee for the opportunity to make an opening statement on the Water Amendment Bill 2019.

As I said, I am the Chief Executive Officer of the Department of Environment and Natural Resources which administers the Northern Territory's *Water Act* but I am also the Controller of Water Resources which is a statutory appointment under that act. With me today is Mr Chris Shaw and he is the Executive Director of the Department's onshore gas reform implementation team. He will answer any technical questions that you might have as we proceed.

I would open the statement by outlining the responsibilities I hold under the *Water Act* as the Controller. It is the main reason this Bill is before the committee today, that and the four recommendations in the Independent Scientific Inquiry into Hydraulic Fracturing which were accepted by Government in April of last year.

As the Controller I am responsible for a range of decisions including the issuing of ground and surface Water Extraction Licences, Waste Discharge Licences and Bore Work Permits. These decisions are governed by rules set out in the *Water Act* and in consideration of management arrangements established in declared Water Allocation Plans where they exist. In government policy, on matters such as construction requirements for Bore Work Permits and the Northern Territory Water Allocation Planning Framework and policies such as Prioritising Water Licence Applications, as examples.

When I make a water licence decision under the act, the reasons for that decision are outlined in a Statement of Decision and are published. The Department has a water portal which is a public website where all water licence decisions are housed. Anyone who is aggrieved by a decision made under the act in relation to a ground or surface water extraction licence can seek to have that decision reviewed by the Minister. This is a review of the merit of the decision where the Minister is deciding if the correct decision was made or if a new decision is required. That is important context because it is part of the reason this Bill is before you.

The independent scientific inquiry made five recommendations relevant to decisions under the *Water Act* which must be completed prior to exploration recommencing: Water extraction by petroleum companies would be subject to licencing requirements under the *Water Act*; Surface water take for petroleum activities is prohibited; Water extraction for hydraulic fracturing within one kilometre of a land owner's bore without prior agreement or hydrogeological information is prohibited; a prohibition on the reinjection of hydraulic fracturing wastewater into aquifers; and prohibition on the release of hydraulic fracturing wastewater to surface waters.

Amendments to the *Water Act* to require petroleum companies to be subject to licence requirements were referred to this committee in August of last year and passed as law in November. We were able to progress these amendments in this timeframe because it was an existing election commitment of the current government and they were already well progressed. You may recall that there were some concerns that they were moving ahead of other changes at the time.

The remaining four recommendations are the subject of this Bill. As it stands, the Northern Territory Government has confirmed its commitments to these recommendations from the final report. This commitment plus an endorsed policy on each of these matters is a reasonable basis for me as the Controller of Water Resources to refuse a grant of a surface water extraction licence or to not agree to water extraction occurring within one kilometre of a land owner's bore, as examples.

In making the decision to not approve the grant or to limit extraction in certain areas, I would rely on section 90, of the *Water Act*. Specifically, 90(1)(k) which states that I can consider any other factor that should be taken into account. That factor would be the independent inquiry's recommendations and Government's acceptance of them.

The Bill before you removes any of my discretion in decision making powers in relation to both water extraction for hydraulic fracturing and the management of wastewater associated with hydraulic fracturing. For me, that is why it is an important amendment. It also protects against decisions that I might make to not issue licences, from being challenged or changed through review.

If these amendments do not proceed I will continue to apply the recommendations of the inquiry report in my decisions, based on government policy. I hope this sets the scene for the basis of the Bill and why this short Bill sits outside of some of the others being progressed for the *Water Act*.

I will outline some of the specifics within the Bill.

In doing so I have tried to focus on the matters and queries raised in submissions to the committee. The main changes the Bill introduces are as follows.

To achieve a prohibition on surface water extraction by petroleum companies, new section 45A has been drafted which expressly prohibits the Controller of Water Resources from granting a surface water extraction licence to petroleum activities. The inclusion of section 45A through this Bill also means that there is no ability for petroleum operators to challenge a refusal to grant a surface water licence.

The second change is to restrict water extraction within one kilometre of a land owner's bore in a new section 60A. This stipulates the conditions to be met—in addition to all the current considerations that have to be in place—before a groundwater extraction licence for hydraulic fracturing purposes can be granted if the proposed bore is less than one kilometre from another existing or proposed bore.

Through this proposed new section, if water extraction for hydraulic fracturing purposes is within the one kilometre buffer, I, as the Controller of Water Resources, will require evidence of either written agreement of the bore owner or user; or a hydrogeological investigation and groundwater modelling to ensure risks are adequately understood and mitigated before the extraction licence can be granted.

This requirement is in addition to the existing criteria of the *Water Act* that must be taken into the consideration to grant or refuse an application. Some of these considerations include: the availability of water in the area; existing and likely future demand for water for domestic purposes; and potential adverse impacts on other lawful water uses. This means that even if a land owner provides agreement, but there are going to broader impacts on the water resource or other users, an extraction licence would not be granted.

The landholder agreement and hydrogeological investigation prior to the licence being granted will be supported by other mitigation measures once the licence has been granted. This includes the monitoring of local bores and make-good requirements should an unforeseen impact occurs.

We will be proposing that this section is subject to an amendment to correct an error in the reference to 'monitoring'. It should read 'modelling' to make it consistent with the inquiry report.

Prohibitions on wastewater from hydraulic fracturing activities being disposed of by reinjection into aquifers and discharge into surface water are provided through the proposed new sections 17A to 17C.

There is already a comprehensive regulatory regime that currently requires approvals to be granted to make releases of waste associated with petroleum activities to what is lawful through an Environmental Management Plan issued under the Petroleum (Environment) Regulations or through waste disposal authorisations under the *Water Act*.

As with the application of this Bill to water extraction, 17A makes it an offence for any hydraulic fracturing waste to have contact with surface, ground or tidal waters. This means that reinjection of hydraulic fracturing wastewater into an aquifer, or discharge to surface water, is prohibited. This provision prevents an application for a waste discharge licence under the *Water Act*, and removes any potential for legal challenge should one not be issued.

Section 17B has been deliberately—this is the one that has been the most controversial—included to facilitate recycling of hydraulic fracturing flowback fluids to future hydraulic fracturing activities within the petroleum well in order to reduce demand for our water resources. The reason it is required is that the gas producing shale formations naturally contain small amounts of water, generally of poor quality. As such, without the disapplication provided for by 17B, having flowback fluid come into contact with this water within the shale formation would be unlawful under section 17A.

We have noted significant concern from submitters regarding the potential for section 17B to be considered as a loophole for pollution. This is not the case. Reinjection of waste into aquifers and discharge into waterways will be an offence.

It needs to be understood that these changes are a form of back up to the primary regulatory tool to regulate the environmental impacts of hydraulic fracturing—which is the Environmental Management Plan. Potential pollutions risks associated with the reuse of flowback into hydraulic fracturing operations are required to undergo rigorous assessment to demonstrate to the Minister for Environment and Natural Resources' satisfaction that all the environmental risks and impacts have been reduced to As Low As Reasonably Practical and to acceptable levels. This decision will be supported by advice from the independent EPA.

In the unlikely event of a loss of containment in the well during a hydraulic fracturing process involving the use of flowback fluids, this would be subject to the existing environmental harm and pollution offences of the *Petroleum Act* and the *Water Act*. Despite this, we have met with a number of submitters to this committee and agree that clarifying the intent of section (b) would be beneficial. My colleague Mr Chris Shaw will step through the detailed operation of these sections including more information regarding the proposed new section 17B which we are suggesting will clarify its intent.

To finish I would like to touch on future changes to the wastewater framework and additional changes that will be required to be completed in accordance with the final report, prior to production scale hydraulic fracturing activities being authorised.

You would be aware that the NT Government has an environmental reform program and the proposed Environment Protection Bill has been out for public consultation. The first stage of this program is underway and focuses on the environmental impact assessment framework for projects that have significant environmental impacts. Policy work for stage two has commenced and will include a focus on the repeal and replacement of the *Waste Management and Pollution Control Act* which will incorporate the waste pollution provisions of the *Water Act*, including their application to petroleum activities.

This drafting process will consider the full intent of recommendation 7.9 which in the final report provides for the possibility of injection of hydraulic fracturing wastewater as a disposal option, subject to 'full scientific investigations'. Any assessment of this as an option would also build on the information which becomes available through the Strategic Regional Environmental and Baseline Assessment—SREBA as it is known—as well as information which might become available through the drilling of additional petroleum wells and monitoring bores.

At this stage however, we are only proposing prohibition. They are not matters we are entertaining. The final report also requires that prior to production approvals being granted, environmental offences and penalties associated with petroleum activities be revised and increased. This will include increases in criminal penalties, the introduction of civil penalties and reversal of the onus of proof and creation of rebuttal presumptions. These future changes will go through public consultation as they are considered, developed and drafted.

We are aware of the concerns of the community about the integration of the relevant reform elements and as far as we can, we will take care to clearly explain how the reforms fit within the overarching reform program objectives.

Thank you for your time and I will hand over to my colleague Mr Chris Shaw to provide some detail on some of the points raised in submissions and any questions the panel might have.

Mr SHAW: Thank you. I take the opportunity to thank the submitters for taking the time to consider the Bill and providing suggestions for improvement.

As Ms Townsend mentioned, I am the Executive Director of Onshore Gas Reform of the Department of Environment and Natural Resources. My role is primarily regarding overseeing faithful implementation of the recommendations of the final report into the scientific inquiry into hydraulic fracturing in the Northern Territory across our department's portfolio.

I will go into detail on key matters raised in the submission on the Bill and some of our proposed responses to those submissions. Firstly I will touch on the definition of hydraulic fracturing. We had submissions about that definition and we also noted this Committee's recommendations on the Petroleum Legislation Amendment Bill 2018. We are proposing to adopt the recommendations of this Committee into our Bill to ensure consistent definitions across the legislation.

I will touch on the wastewater disposal issue, this issue had the greatest focus across the public submissions, and outline the requirements of proposed sections 17A to 17C in more detail. There is already a strong regulatory framework in place regarding the management of unauthorised pollution or environment harm under both the *Petroleum Act* and the *Water Act*. The need for these new sections arises from the fact that those pollution offences provide for approvals to be granted to allow for waste to go to waters. This is about closing the loop to not allow those approvals to be granted by the Controller of Water Resources or by the Minister for Environment and Natural Resources for an Environment Management Plan.

The approval of an Environment Management Plan under the Petroleum (Environment) Regulations could authorise this disposal within a petroleum site provided that approval criteria could be demonstrated to be met. Further, for wastewater releases outside of the petroleum sites, a waste disposal licence or waste discharge licence could also be granted under the *Water Act* to make that lawful. We are trying to close that loop to comply with the requirements of recommendations 7.9 and 7.17.

These provisions are not intended to deal with accidental or unintended releases of wastewater, which are already regulated through those two statutes. This is why the offence elements contained within 17A are considered to be appropriate and deliver the right balance between ease of enforcement for the intended purpose as well as the maintenance of compatibility with human rights.

As accepted practice we have used the levels of environmental offences from the *Environmental Offences and Penalties Act* for these new provisions. It sees the most serious offence as a level one offence carrying a penalty of 385 penalty units or up to five years imprisonment for individuals and 19 240 penalty units for a body corporate which equates to a maximum financial penalty of \$2 982 2000. That is consistent across the *Petroleum Act*, the *Water Act* and the *Waste Management and Pollution Control Act* for the various levels.

Some of the submissions raise that the final report includes a number of recommendations relating to environmental penalties in relation to hydraulic fracturing. Ms Townsend outlined our plans for introducing higher and more onerous requirements in this regard and they are coming in stage three of the implementation of the hydraulic fracturing inquiry. They are required to be done before any new production approvals—not before exploration approvals.

I will touch on the *Petroleum Act* tools and the way it works. There are a range of enforcement tools should a hydraulic fracturing operation lead to—through some unlikely process—well integrity not being maintained. They include Ministerial directions for specific actions to prevent pollution, the Government undertaking pollution prevention actions on behalf of a proponent and recovering the costs and revoking the proponent's petroleum interest because of environmental offences as well as the option of prosecution.

The approvals for the petroleum industry have been moved across to the Minister for Environment and Natural Resources who will be the one responsible for instructing any prosecution of these offences.

I will move into more detail on the reuse of flowback fluids. The ability to reuse and recycle flowback fluid will reduce our requirement for extraction of groundwater. This is a good outcome that we want to see. Most

petroleum formations, including shale formations, naturally contain small amounts of entrained water. While they would not readily flow from a shale formation without fracturing being undertaken—it is not good quality for beneficial use—it is water nonetheless under the definition of water in the *Water Act*. Without 17B we could not allow hydraulic fracturing flowback or produced water to go back down in future fracks.

That is the reason that 17B is there and it is the key matter we are trying to address. From the submissions, despite the fact that use of wastewater in the frack process that is flowback to be reused is adequately controlled, we propose, in line with some of the submissions, to change 17B so that the disapplication of the offences of 17A only apply in a circumstance where that wastewater, be it flowback fluid or produced water, is contained with the hydrocarbon bearing formation.

The disapplication would not apply if the hydraulic fracturing wastewater, through a spill in a hydraulic fracturing process, made a surface water. That will close that potential gap and make it clear that that is not the intent of this provision to allow for that to happen.

I will provide more detail on the groundwater extraction side of things in relation to the one kilometre buffer from an existing bore. We are happy to change the reference to 'monitoring' in section 60A to 'modelling'. Another element that came through the submissions was that the hydrogeological investigations and modelling to perform a hydraulic fracturing water extraction within one kilometre should be to the Controller's satisfaction, not that one of these studies exist. We support that change and would be happy to progress that in an Assembly amendment.

Mr CHAIR: Thank you. (Inaudible – Chair's mic is turned away) They do come through and as you can see the Department has gone through those submissions. (inaudible) We have about three pages of questions. Your opening statements have helped us review some of those questions and you have answered some of them.

We will move to questions now. (Inaudible). The Northern Land Council has requested that the definition of hydraulic fracturing be amended to capture all possible forms and variances of anticipated practices with specific reference to the inclusions of proppants, which are solids that are mixed with fracking fluids. What would be the effect on the operation of the Bill if the definition of hydraulic fracturing was amended in this way?

Mr SHAW: I am happy to take that question. In relation to the definition of hydraulic fracturing we are looking for consistency across the pieces of legislation that regulate hydraulic fracturing—we are aligning with the Petroleum Amendment Bill. In relation to those specific additional elements to that definition, key is that we consider the process of injecting fluids into a petroleum formation to cause fractures in that formation. That is the risk that both we and the inquiry considered. Adding more elements to that definition such as the use of proppants or other specific elements would mean that in some circumstances you may not qualify under the definition of hydraulic fracturing. Our position is to keep it broad and in line with the existing definitions.

Mr CHAIR: Thank you. Can you clarify the rationale for using the fault elements specified in the offence provisions in section 17A, including an explanation for why the penalty levels decrease from subsection (1) to subsection (5)?

Mr SHAW: In relation to the decreasing penalties from (1) down to (5), that is because number one is the most serious offence—it is a serious environmental harm—and then it results down to material and to no environmental harm at all. We have done this in alignment with the *Environmental Offences and Penalties Act* which has level one to four offences. We have modelled it off that.

Element five, which is the strict liability offence, is a smaller offence again and appropriate for maintenance of human rights and how it is dealt with in circumstances when a genuine accident has occurred. The offences of 17A are largely modelled off section 16 which exists in the *Water Act* already around causation of pollution to waters. We have updated those offences to be compliant with Part IIAA of the Criminal Code.

Mr CHAIR: The scientific inquiry recommends a prohibition on the reinjection of wastewaters into aquifers unless scientific investigations determine that associated risks can be mitigated. Why doesn't 17B qualify the ability to reinject produced water or flowback fluid with reference to requirement to undertake full scientific investigations to determine whether associated risks can be mitigated?

Mr SHAW: That is a good question. We spoke to this in some detail in terms of the intent of how 17B would operate. All that 17B authorises is the reuse of flowback fluids in fracturing operations. That would not be

considered to be reinjection of waste to an aquifer. What we have done is stronger than that recommendation in that we have not provided for a scientific investigation to allow for reinjection of wastewater to an aquifer.

That is because at this point in time we do not have enough information about what a scientific investigation would need to demonstrate or cover. That will be covered through the SREBA. In effect, at this point in time you cannot have an approval to reinject wastewater into an aquifer and 17B has a different purpose altogether.

Mrs FINOCCHIARO: So the only fluid that can be reused is the flowback fluid and it is limited to engaging in another frack?

Mr SHAW: That is right, flowback or produced water from a petroleum well.

Mrs FINOCCHIARO: So even the produced water?

Mr SHAW: If it has come following a hydraulic fracturing activity. These provisions apply in relation to hydraulic fracturing.

Mrs FINOCCHIARO: Is there any other wastewater that cannot be reused? Or that does cover the wastewater from a frack?

Mr SHAW: From the frack process itself, that covers all the return water out of a well that has been fracked.

Mrs FINOCCHIARO: So it is not that that water is wasted, it can be reused for that specific purpose. It cannot be reinjected back into an aquifer or some other process.

Mr SHAW: That is right. The primary intent is to stop it from being disposed into aquifers which is different from being reused.

Mrs FINOCCHIARO: Okay.

Mrs WORDEN: When you talk about produced water or flowback fluid, how does that related to treated water? Through the scientific inquiry we know that water onsite would require treatment and there is no proposal at the moment—I do not think there is anywhere to treat it in the Territory, although that could be done eventually as a side industry. How are treated, produced and flowback water different? Would treated wastewater be considered under 17B?

Mr SHAW: Both flowback and produced water could be treated but for the purposes of the Bill, we have defined hydraulic fracturing waste to be either treated or untreated—including both of those things. As the inquiry said, we cannot allow for treated flowback or produced water to be reinjected. That is how the Bill would operate.

Mrs FINOCCHIARO: That is based on the Pepper inquiry recommendation? It is not independent assessment that the Department has done?

Mr SHAW: That is right. The Pepper inquiry recommendation talks to two risks associated with reinjection of the wastewater. One is the water quality which can be mitigated through treatment and the other is over pressurisation of aquifers and causing damage to the formations which cannot be mitigated through water treatment.

Mrs FINOCCHIARO: So the first element could be mitigated if there was further work done around that? But even if you can overcome the obstacle of getting that water to potable or aquifer quality, there remains an ongoing concern that the pressure in reinserting that water could cause other damage?

Mr SHAW: That is correct. That is what we need those detailed scientific investigations to inform us about—what aquifers could be appropriate targets.

Mrs FINOCCHIARO: That could be a body of work at a future point in time.

Mr SHAW: Yes, that is right. Through SREBA or in partnership with other studies such as the Geological and Bioregional Assessment program.

Mr CHAIR: The environmental impacts associated with the reuse of hydraulic fracturing fluids will be managed through an Environmental Management Plan under the petroleum regulations. Please summarise what is included in an Environmental Management Plan and explain how it will mitigate risks associated with the reuse of hydraulic fracturing fluids. For example, the risks that contaminants or unsuitable water types will be introduced into the groundwater.

I think you have explained some of it.

Mr SHAW: I can give an overview of the whole process which I have not done yet. An Environment Management Plan, or an EMP as we call them, is the primary regulatory tool for onshore petroleum activities. You need one of those approved by the Minister for Environment and Natural Resources prior to any regulated activities occurring—activities which could have an environmental impact. Any drilling of a petroleum well or hydraulic fracturing would be a regulated activity and need an EMP to authorise it. The EMPs for drilling and hydraulic fracturing require a 28 day public consultation process and any comments received through that process will need to be considered by the Minister in her decision about whether or not to approve the EMP in terms of the process.

The EMP is required to describe the existing environment in the area of the proposed activities and further to that, any particular sensitivities of that environment. That would include details of water resource aquifers and how they are being used. The EMP must then describe the activities proposed to be undertaken and any risks or impacts that those proposed activities could have to the environmental values that they have identified. It includes an explanation and detailed analysis of those risks and before the Minister can approve the EMP she must be satisfied that all of those potential risks and impacts have been reduced to a level that is as low as reasonably practicable, which is the test adopted in safety and environmental legislation for onshore and offshore petroleum in Australia. An additional test needs to show it is acceptable.

Her decision on that will be supported by the independent NT EPA. There is strong process around that. Chemicals proposed to be used in the fracking operations are now required by law to be disclosed in the EMP before it is approved as well as recording and reporting back to the Minister what comes back out of the well. She must make that public as well.

Mrs FINOCCHIARO: In relation to the flowback and other fluids that can only be reused to conduct another fracking operation, you mentioned that you need a waste disposal licence for outside of the petroleum area. If you want to capture what comes back out so you can reuse it—reducing the need to get new water—that is okay, but if you want to take that water outside of that well, you would need a licence to transport that water?

Let us say you wanted to use that water for a different well. Well I guess you always would be, or not necessarily. Do you know what I mean?

Mr SHAW: I know what you mean. The wastewater being reused for future fracks would not require a waste discharge licence.

Mrs FINOCCHIARO: So if it was water from well one and you wanted to use it for well 3...

Mr SHAW: That would still be on a petroleum site and you would have an EMP for the next well.

Mrs FINOCCHIARO: Okay, thank you.

Mr CHAIR: If section B is amended to only allow wastewater to come into contact with a target petroleum bearing formation, would the operator be liable if damage to the well resulted in seepage of wastewater?

Mr SHAW: Yes, in short. If well integrity was compromised and wastewater was able to migrate into an aquifer the operators would be liable. There would be a number of potential mechanisms that the Government could use to take action including penalties for not complying with an EMP and penalties for an environmental impact that was not approved in an EMP. It is under the Petroleum (Environment) Regulations.

If it is on a petroleum site and it has caused environmental harm, then there are the environmental harm offences of the *Petroleum Act*. If it happened to make it outside of the petroleum site then you move into the pollution offences of the *Water Act*.

Mrs WORDEN: There is limited knowledge about the interconnection of underground waterways in the Northern Territory. Could you tell us what, if any, scientific investigations have been undertaken in the

Territory to clarify the extent of the risks associated with reinjection of wastewater during the process of hydraulic fracturing?

If scientific investigations undertaken today are limited, how would this be addressed in the future?

Mr SHAW: In relation to the specific issue of risks associated with reinjection of wastewater, the studies are limited at this point. This is why we have proposed that this Bill would not allow for it to happen, and not be authorised. We are proposing for SREBA to cover it and any information coming back from the monitoring programs we have. We are working with the CSIRO and the GISERA program around better understanding of the aquifer systems. They are about to release a study they have done across the Beetaloo last year which did some tracer work to better map recharge and interconnection between the aquifers.

There are a range of ongoing programs but at this point we do not have enough information to be confident about exactly where those risks would be appropriately mitigated so the Bill does not allow for it to be authorised.

Mrs WORDEN: So you will be getting that report from the CSIRO?

Mr SHAW: It will be made public.

Ms TOWNSEND: I will add to that. The full recommendation around reinjection provides for a future where there may be the potential for it to be reinjected if you had those full scientific investigations. With this Bill we have prevented that and for time being it would be a prohibition.

Mrs WORDEN: Can you tell us what provisions there are to dispose of wastewater from hydraulic fracturing and what oversight there is to ensure compliance?

Ms SHAW: There are a number of recommendations from the inquiry report which specifically relate to the disposal of hydraulic fracturing wastewater. I will focus on the ones which have to be implemented for exploration scale activities. The most important one in that regard is the mandatory code of practice which is to go out for public consultation this week. Unfortunately these things have not been able to come out together but the pieces are starting to come together.

Out of the four sections within the code, one of the sections of the code is all about wastewater management. Its approach is, as the inquiry said, that you have to have a wastewater management plan for your project which identifies the likely waste you will be producing, the storage and disposal mechanisms you are going to use. It also has specific requirements on storage—the use of enclosed wastewater storage tanks for the Wet Season—and lined well lease pads to make sure that these wastes are not lost in rain events.

It also applies a waste tracking requirement on these wastes both onsite and offsite under the *Waste Management and Pollution Control Act*. Moving forward the Government has a recommendation in the inquiry to look at the viability of setting up a waste disposal facility in the Northern Territory. For now it will be a matter for the proponents in working out what their wastes are and what licensed waste acceptance facilities there are that can take that and the transport operations that they would use. All of those things need to be licensed.

Mrs WORDEN: There is an opportunity for private enterprise in that. Did you say upfront that that is only for exploration at the moment—that code of practice—or is it beyond that?

Ms SHAW: The code was something we had to do prior to new exploration approvals. We had to have that done and we will have to have that done before the Minister signs off on any drilling and fracking EMPs or exploration scale activities. That code will apply to both production and exploration activities.

Mrs FINOCCHIARO: So you are expecting that code to come out this week, what period of time will that be open for consultation?

Ms SHAW: Four weeks.

Mrs FINOCCHIARO: Who administers the code?

Ms SHAW: It will be given a head of power. The Petroleum Legislation Amendment Bill 2018 which was passed recently, gives the *Petroleum Act* power to prescribe codes and will be specifically gazetted under the Petroleum (Environment) Regulations.

Mr CHAIR: Recommendation 7.8 of the Scientific Inquiry refers to land holders. Section 60A is drafted to take into account bore owners. There are implications for the Aboriginal Land Trusts and other entities or individuals which may own land but not the bore. What is the rationale for drafting section 60A in relation to bore owners rather than land holders as specified by recommendation 7.8 from the Scientific Inquiry?

Ms SHAW: At a higher level the recommendation is about protecting water supplies from existing bores to make sure that these bores continue to supply the water whether it is for stock and domestic or a licensed take for horticulture. It is that risk that this Bill is trying to manage, not the overarching land access and impacts associated with petroleum activities being undertaken on particular land. There are a range of existing protections for this.

The primary reason we have chosen to have the agreement provided by the bore owner, or the user of the bore, is the fact that they are the ones who use that water and will be impacted should the bore no longer provide appropriate water production.

Mr CHAIR: Section 60A(2)(b) requires that hydrogeological investigations be undertaken but it does not specify the need for a strategic regional environment and baseline assessment. Given that such an assessment is a requirement of recommendation 7.8 of the scientific inquiry report, why has this not been included?

Ms SHAW: Yes, 7.8 does point to hydrogeological investigations and SREBA is one form of those. The inquiry says in relation to SREBA that it is not required to be done until preproduction activities. The planning for SREBA is being undertaken right now. Once the SREBA is available we will consider that information in relation to Ms Townsend's decisions to grant a groundwater extraction licence but for now, we believe the intent of the inquiry is for exploration scale water extraction there is no SREBA, so the hydrogeological investigation or land holder agreement is what we would rely on in the meantime.

Mrs FINOCCHIARO: Ms Townsend, in your opening you said 'it removes the discretion of the water Controller'. Do you mind expanding on that? Are you saying that this Bill will remove your requirement to grant water extraction licences for fracking?

Ms TOWNSEND: The inquiry recommendation makes it clear that surface water extraction should not be allowed. Under the *Water Act*, surface water extraction is allowed, so to not allow it or refuse the grant of a surface water extraction licence would be to use 'any other factor' I consider. That factor would be the inquiry recommendation and Government's acceptance of it.

I would still continue to not grant it. I am thinking of a future where should I choose not to grant a surface water extraction licence and there was a challenge of that decision by a proponent, all I would have to fall back on would be 'any other factor' and government policy. It is to make it certain that, in the future, a different water Controller would not take a different position or that a proponent would not challenge a future decision to not grant. It makes it more water tight.

Mr CHAIR: I have one more question on 60A. The Northern Land Council recommends that section 60A(2) should require the Controller to withhold the licence unless the requirements of both sections (a) and (b) are met. This provides more robust protection for land owners adjacent to bore owners. What affect would this have on the operation of the Bill?

Mr SHAW: As we were working through it our primary policy background is the fact that the Government has adopted the recommendations of the inquiry and it provided for either/or. We considered that having both be mandatorily required would effectively negate the ability for a bore owner to enter into an arrangement with a petroleum operator if they chose to in an appropriately informed way. That could rule out options for a petroleum proponent to enter into agreement with a bore owner to provide things such as improving their bore to otherwise offset potential and possible impacts or other mechanisms they consider necessary.

This section 60A does not override the existing requirements for her to consider under the *Water Act*. Even if a land owner does provide their agreement, it does not necessarily mean that Ms Townsend would or would not approve a water licence if she felt that the impacts to the water resource or other users were not appropriate.

Mr CHAIR: Thank you. Clause 11 part 16 around transitional matters for Water Amendment Act 2019. Can you please clarify whether the transitional arrangements set out in clause 11 relate to both proposed and existing bores, expired licences seeking renewal and licensees seeking amendment of existing licences?

Mr SHAW: The section itself covers both proposed and existing bores. The transitional arrangements cover licences which are seeking renewal or amendment. An expired licence which has not sought renewal would not be lawful and would not be covered.

Mrs FINOCCHIARO: The rules around water extraction and control only relate to the petroleum industry. How are other industries impacted by this reform?

Mr SHAW: The way the Bill is defined only relates to hydraulic fracturing activities or petroleum activities.

Mrs FINOCCHIARO: So there is no change to mining or cattle?

Mr SHAW: That is correct.

Mr CHAIR: A common theme throughout the submissions was around the different sections coming in at different times. It can be difficult for submitters to get to all these committee hearings. Can you go through some of that again before we finish up?

Ms TOWNSEND: I will not go through all the different components except to say that we are acutely aware that the requirements to get ready for onshore gas is a very ambitious one. There are 136 recommendations where we, the Department of the Chief Minister and the Department of Primary Industry and Resources are working to implement. That being said, we are also aware that it is very difficult to piece the parts together—the *Water Act*, the *Petroleum Act*, the Petroleum (Environment) Regulations and codes.

The Department of the Chief Minister is working on a document which we hope will be out imminently which tries to piece together what the new regulatory arrangement looks like so that you can see the whole, what has been done and what is coming. I hope that will give some assurance. As we move past the recommendations we need to implement for Exploration, we will have more air time to work on the recommendations for Production in a more integrated way.

Mrs FINOCCHIARO: I want to ask about the code of practice. That will be coming out and there will be a four week period of consultation. How is that consultation process going to inform the final version of the code of practice which will then be enshrined in the regulations? Will it be the Department collating submissions and then making that assessment? What will the process be to inform the final version and who has the final tick off?

Mr SHAW: We are not coordinating this ourselves, we are working together with the Department of Primary Industry and Resources. What we have done to date is that the CSIRO has helped us coordinate input and technical inputs from industry and our own technical experts. The Codes then went out for peer review from a range of national and international experts. It is now going out to public consultation.

The Department is coordinating the input and making decisions on what the appropriate changes to the Codes would be as a result of the public input. From there, the Minister would need to be comfortable in relation to the final content.

Mrs FINOCCHIARO: Thank you.

Mr CHAIR: Any more questions?

Mrs FINOCCHIARO: No, thank you.

Mr CHAIR: On behalf of the committee I thank you for coming in here today. I thank everyone who has put in a submission on this. Water is a very valuable commodity in the Territory. We appreciate all the answers today and everyone who has made a submission is important to the committee.

Thank you.

The committee concluded.
