WATER AMENDMENT BILL 2019
(Serial 80)

Ms LAWLER (Environment and Natural Resources): Madam Speaker, I thank each of my colleagues and the Leader of the Opposition, the Member for Nelson and the Member for Nhulunbuy for speaking on this important bill today. I acknowledge the support of the Opposition for this bill.

It was lovely to hear from my colleagues and I will start with them first. The Member for Braitling reminded us about the expert panel and how expert that panel is and the advice they provided. It was good to have a reminder about that as well as the 18 months of consultation.

I know the Member for Nhulunbuy put in a dissenting report on this act and one of the things he said was lack of community consultation. I go back to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory which truly was the most comprehensive consultation we have probably seen in the Northern Territory. That report is also probably the most thorough investigation into this industry in Australia's history.

When you think of hydraulic fracturing, I know WA has done some work on it, but truly it has been the most thorough investigation into this industry. There were considerable amounts of consultation over those 18 months.

It was also positive to hear from the Member for Braitling about how precious water is from the perspective of her portfolio of essential services. We understand that and I will talk later about reinjection that she talked about.

The Member for Casuarina's contribution was a timely reminder of the work that our government has done in the area of water but also in environmental reform. This act, and the amendments to this act, is part of the puzzle of this large body of work that our government committed to.

I know the Treasurer uses the phrase 'heavy lifting' but there has been some huge heavy lifting in the environment portfolio. It is at this time that I thank the Chief Executive, Jo Townsend, Chris Shaw and Christine Long. A small team who have done huge amounts of work in this area. Well done to them.

It was a timely reminder from the Member for Casuarina on the substantial work that she started when she was minister for the environment. With the support of the agency, we have been able to continue that.

The Member for Port Darwin, who is also the Minister for Primary Industry and Resources, thank you for your contribution. The Member for Port Darwin and I are very pleased to be able to work in partnership to implement those 135 recommendations in a careful, considered and sensible manner. That is what we will continue to do.

Some of the things that were brought up by the Opposition. The Leader of the Opposition talked about the penalties. The current maximum penalties for the offence in accordance with the *Environmental Offences and Penalties Act* are 77 penalty units for a natural person—so that is for the individual—and 385 penalty units for a body corporate. That is 5 years imprisonment or about a $3m fine for a body corporate if there is a breach. That is quite substantial.

The Member for Nelson acknowledged that the industry supports these recommendations. There were a number of things brought up by the Member for Nelson. First, there was a clarification regarding surface water. Section 17B does not allow waste water to be reinjected into aquifers. To be clear, this is about not reinjecting into aquifers.

This section has been deliberately drafted to facilitate the recycling of hydraulic fracturing flowback fluids for future hydraulic fracturing activities in order to reduce the demand for our precious water resources. It does not allow for hydraulic fracturing waste to come into contact with the aquifer. It can be used for future hydraulic fracturing use, but it is not to be put into the aquifer.

As more scientific information becomes available regarding the safety of the reinjection process, such as through a SREBA, we may be in a position to consider the appropriateness of reinjection. However, our solution provides the highest possible of scrutiny in order to take this decision—being the passage of this bill. We looked at this carefully. The Member for Braitling also talked about this.

The Member for Nelson also talked about the difference between the mining and petroleum industries. We have stage one of the environmental reform act coming to Parliament soon. I will be introducing that bill

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tomorrow or the next day. Stage one is about the environmental impact statement. Stage two will have a close look at the issues regarding waste management. There is work to be done.

The work we have done with the *Water Act 1992* has been about implementing in a comprehensive the 135 recommendations of the report from the hydraulic fracturing inquiry. In late November we passed the Petroleum Legislation Amendment Bill 2018, which states that you need to have a water licence. This commenced for petroleum operations in January. It will apply to mining operations on 30 June 2019.

The Member for Nhulunbuy discussed concerns he had about drought triggers. I offer the Member for Nhulunbuy a briefing, as I know he did not attend one of the briefings we had. He probably needs a briefing on this to understand some of the issues. The water resources being targeted in the Beetaloo region are not subject to significant seasonal variation. The amount of water proposed to be taken for shale gas exploration is only a fraction of a percent of the water in storage.

For example, the groundwater extraction licence recently issued to Santos for exploration activities in the Beetaloo region authorises a take of approximately 1/100th of a per cent of the most conservative estimate of the volume of water stored in the aquifer system. In this case, the control of water resources had strong evidence regarding the required consideration of section 90 of the *Water Act 1992*, such as the availability of water in the area in question and any adverse effects likely to be created as a result of the proposed take for petroleum activities.

When you talk about drought triggers, the water in the Beetaloo region has been there for a long time and seasonal variations have a small impact on it. There needs to be greater discussions and conversations on this to gain a clearer understanding.

I thank all of those who spoke on the Water Amendment Bill 2019. It has been enlightening and useful to be able to have the opportunity to talk about and clarify some of those points.

The Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory found that the risk associated with hydraulic fracturing activities could be reduced to acceptable levels if all the associated recommendations are adopted. The Northern Territory Government has acknowledged this and is firmly committed to faithfully, effectively and efficiently implementing every one of these recommendations.

We accepted the recommendations as well as the enormity and amount of work and responsibility with the task ahead.

As I outlined to the Assembly in February this year, the purpose of this bill is to amend the Water Act 1992 to deliver on this commitment, not only now but also into the future to make sure successive governments deliver on these commitments to ensure potential risks continue to be appropriately managed. The bill also removes the potential for legal challenge or overturning of any refusal of an application by the controller based on the recommendations of the inquiry.

Specifically, the bill ensures that the following recommendations which relate to the critically important matter of protection of water resources are appropriately implemented as follows:

- Proposed section 45A prohibits the use of surface waters for hydraulic fracturing activities by requiring the controller to refuse any such applications.
- Proposed section 60A ensures that any proposed ground water extraction for hydraulic fracturing within 1 kilometre of an existing bore does not adversely impact on the existing bore by requiring the controller to refuse any such applications where they do not have the written agreement of the bore owner or are not supported by a hydrogeological investigation demonstrating there will not be an adverse impact.
- Proposed section 17A prohibits the disposal of hydraulic fracturing wastewater to surface water and aquifers by creating an offence for this waste to come into contact with any waters including surface water, ground water and tidal water.

This bill is another demonstration of this government's commitment to enabling the economic opportunities of an onshore gas industry but also appropriately protects our precious environment and water resources for all Territorians.

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The report of the Economic Policy Scrutiny Committee was tabled in parliament on 7 May 2019. At this time, I acknowledge those members of our community that took the time to prepare submissions to the committee on the bill, which have been useful and led to specific improvements in the bill.

While some matters raised in the submissions were outside the scope of this bill, I am confident that they will be considered by my Department of Environment and Natural Resources as they continue with the implementation of the remainder of the inquiry report recommendations required to be completed prior to production activities involving hydraulic fracturing commencing.

The committee's report recommended the bill be passed, subject to amendments to deliver the following:

- limit the disapplication provided by proposed section 17B to only allow for reuse of hydraulic fracturing waste where the fluid is contained with the geological formation in hydraulic fracturing activities
- correct the term used in proposed section 60A from 'monitoring' to 'modelling'
- require the hydrogeological investigation provided for in proposed section 60A to be to the satisfaction of the Controller of Water Resources before a groundwater extraction licence could be issued
- amend existing section 47 to ensure that an exemption cannot be gazetted that would over-ride the requirements of proposed section 60A or proposed new requirements of section 67.

As I have provided, all of the recommended changes have been incorporated in the Assembly amendments.

In addition to this, we have made a further amendment to change the definition of hydraulic fracturing so that it is consistent with the definition adopted in the *Petroleum Legislation Amendment Act 2018.*

It is important that the Assembly remembers the bill does not create any new authorisations or provide exemptions from existing offences. It simply creates new prohibitions that align with the inquiry report's recommendations and deliver a stronger enduring regulatory framework that eliminates the potential for legal challenges and future weakening of the required protections. As such, the matters that it addresses and the extent of these current amendments, including the Assembly amendment being tabled today, is limited to this context, and not the broader regulations of the hydraulic fracturing industry.

The definition of hydraulic fracturing was amended in the *Petroleum Act 1984* following the Economic Policy Scrutiny Committee report on the *Petroleum Legislation Amendment Bill 2018*. It is important that there is consistency across the relevant legislation governing these activities and as such we have also adopted this definition through the Assembly Amendment.

Probably the most significant concerns raised from the community with the bill during the committee process were in relation to the operation of proposed section 17B. This section provides that the offences of section 17A in relation to allowing hydraulic waste to come into contact with water would not apply when this happens in future hydraulic fracturing activities.

This is for the deliberate purpose of allowing hydraulic fracturing fluids to be reused. Some confusion was caused in that it appeared, to some, to allow for accidental pollution of aquifers through the hydraulic fracturing process. This is not the case as any accidental pollution of aquifers during hydraulic fracturing activities—whether through the reuse of waste or any other mechanism—would be an offence under the *Petroleum Act 1984* or section 16 of the *Water Act 1992*.

Notwithstanding this, we agree with the public submissions and the committee's finding that an amendment to clarify that the only time the disapplication provided by section 17B applies is when the hydraulic fracturing waste is contained within the targeted geological formation subject to hydraulic fracturing. This amendment does not impact the operability of the provision and allows additional clarity regarding its intent to proponents and the community.

The committee also recommended that section 60A be updated to correct a reference in the bill from 'monitoring' to 'modelling'. This amendment better aligns with the intent of recommendation 7.8 of the Inquiry Report. We have also given effect to the suggestion of some submitters and the committee that the hydrogeological investigation required by section 60A should be required to satisfy the Controller of Water Resources.

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It is considered that this additional element removes the potential for challenge should the controller reject an application due to an inadequate investigation and has therefore been incorporated through the assembly amendment.

The final change recommended by the committee is to limit the powers of existing section 47 so that they do not provide an ability for these new provisions to be over-ridden through the gazettal of an exemption. While I can comfortably say this government would not take such an action, we agree that this is a worthy inclusion for future proofing the faithful implementation of the recommendations.

More broadly, these amendments are a part of a very large and comprehensive body of work that implements the recommendations of the Inquiry Report in order for exploration activities to recommence in the Beetaloo Sub-basin this year.

While there have been numerous bills through the Assembly at various times in the last year which relate to this, which I acknowledge has created some challenges for the community to keep up with and follow in a holistic manner, we have made excellent progress and have delivered one of the most robust frameworks for the environmental and natural resource management for an industry in the Territory's history. It has provided the confidence for the industry to again start investing in Territory businesses but not at the sake of our environment.

As we move forward into implementation of the remaining recommendations of the Inquiry Report prior to production activities commencing, we will focus on an integrated approach to link related legislative and policy changes and engage with the community and stakeholders in a much more strategic fashion.

I would again like to thank each of my colleagues that spoke, the Leader of the Opposition, the Member for Nelson, the Member for Nhulunbuy as well for speaking to this motion. I also thank the scrutiny committee. It has been a large amount of work as well as the public hearings.

Thank you to the department and the CE and the people in the agency who have worked very hard.

I move that the bill and the Assembly Amendment be passed to become a proposed law.

Motion agreed to; bill read a second time.

Consideration in Detail.

Clauses 1 to 3, by leave, taken together and agreed to.

Clause 4:

Ms LAWLER: Mr Deputy Speaker, I move amendment 1 to clause 4. In clause 4 the proposed definition of 'hydraulic fracturing' is to be amended to align with the definition adopted in the Petroleum Legislation Amendment Bill 2018 The key difference in the definition is replacement with the terms, 'gas' and 'oil' as well as 'hydrocarbons' for the term 'petroleum'. The definition will now read as:

> *Hydraulic fracturing means the underground petroleum extraction process involving the injection of fluids at high pressure into a geological formation to induce fractures that conduct petroleum for extraction.*

The remainder of clause 4 is to continue as written, that being it provides for a new definition of 'hydraulic fracturing waste', referencing section 4A for the purposes of section 17A, 17B, 17C and 67.

Mr HIGGINS: Thanks for that. In that definition you have the use of the word 'petroleum' to match what is in the *Petroleum Act*. But when you look in the *Petroleum Act* or the regulations, the act states, 'Petroleum means …' and it has the meaning of petroleum. Are we putting that definition into the *Water Act*, or are we referring it across to the definition in the *Petroleum Act*? In the act it says:

> *petroleum means:*
>
> *(a) a naturally occurring hydrocarbon, whether in a gaseous, liquid or solid state;*
>
> *(b) a naturally occurring …*

Et cetera. How are we referencing those two back to each other—if you understand what I am asking?

Ms LAWLER: I understand there is no additional definition. It would go back to the *Petroleum Act*.

Mr HIGGINS: Okay. So, that just automatically occurs? You do not need a reference to it? How do you cross-reference then the meaning of petroleum in the *Water Act*? How do you determine that petroleum is then defined in the *Petroleum Act*, because that is the definition you are trying to pick up? Why have we not added it into both and kept the two of them in line?

Ms LAWLER: It is possible, you could do that. But apparently, it will fall back to other definitions we have of 'petroleum' in other acts.

Mr HIGGINS: If that is the case, have be assured ourselves that petroleum is defined exactly the same in every other act that it could be in? That is the worry I have. To me, it would seem easier to just put that definition of 'petroleum' in the act, or reference it to the *Petroleum Act*. I am not a lawyer, but to me, if I was trying to read it, that is how I would be looking.

Ms LAWLER: Thank you, Leader of the Opposition, but it is as it stands there.

Amendment agreed to.

Clause 4, as amended, agreed to.

Clauses 5 to 6, by leave, taken together and agreed to.

Clause 7:

Ms LAWLER: Mr Deputy Speaker, I move amendment 2 to clause 7. Clause 7 introduces a new Division 3 to Part 2. This Division introduced is a prohibition on the release of hydraulic fracturing waste to waters. This prohibition ensures that authorisation such as a waste or discharge licence cannot be given to authorise disposal of this waste to waterways or aquifers.

The application of the prohibition of Division 3 is excluded by section 17B in cases where it involves the use of hydraulic fracturing waste in future hydraulic fracturing activities to allow for recycling of hydraulic fracturing fluids. The Assembly clarifies the intent that the disapplication of the offences of 17A only apply in a circumstance where that wastewater, be it flow-back fluid or produce water is contained within the hydrocarbon bearing formation.

Division 3 is not intended to control the accidental or emergency release of hydraulic fracturing wastewaters as this is already captured in the *Petroleum Act 1984* and section 16 of the *Water Act 1992*. However, in order to clearly articulate that the only instance where the reuse of hydraulic fracturing waste can occur is when contact with water is contained within the target geological formation. This has been given effect by adding this additional element to section 17B.

Mr HIGGINS: Why did we change it from 'groundwater' to 'geological formation'? What was the logic behind that?

Ms LAWLER: It is about where it is contained. It is in the area where the gas is contained rather than in the water.

Mr HIGGINS: Do you mean water that is underground?

Ms LAWLER: Yes. There is water that is where the gas is. It is in that band.

Mr WOOD: I will go back to the beginning of that section. Section 17A talks about hydraulic fracturing waste and water. It says:

> *(1) A person commits an offence if:*
>
> *(a) the person intentionally engages in conduct; and*
>
> *(b) the conduct results in, directly or indirectly:*

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(i) hydraulic fracturing waste coming into contact with water; and

(ii) serious environmental harm …

If the water has been treated, similar to what I said before about the gold mines, and it is proven through the EPA and waste discharge licences that it will not cause serious environmental harm, why should hydraulic fracturing waste not be allowed to have the same conditions as waste from tailings dams?

Ms LAWLER: It is about over-pressurisation of the fracturing. I understand that has been an issue in the United States. Where the water is cleaned and put back into the fracture, it can cause over-pressurisation.

These recommendations regarding the *Water Act* are about hydraulic fracturing and the recommendations of the report. The environmental reform act that we are working on will have two stages. The first stage is to do with the environmental impact statement. The second part will be about waste from mining. This is about water and hydraulic fracturing specifically.

Mr WOOD: I understand the bit about pressure, but we are talking about hydraulic fracturing waste coming into contact with water. Does water, in this case, also include the discharge of hydraulic fracturing waste into surface water? Is that included in this clause?

Ms LAWLER: Yes it is.

Mr WOOD: I will go back to my original question Minister. If that is the case, what is the difference between a gold mine which is allowed to release treated water from a tailings dam—in the case of Mt Todd into the Edith River—and a hydraulic fracturing process which can also treat the water and, subject to that water being given the okay by the EPA, cannot it also be released into surface water?

Ms LAWLER: In this *Water Act*, we are dealing specifically with the recommendations for hydraulic fracturing. When we work on the second stage of the environmental reform, we will look at those issues of waste water from mining.

We are making decisions for these changes to the act based on the scientific inquiry. This is the work that relates to hydraulic fracturing in the *Water Act*.

Mr WOOD: I am not clear. If we have water being discharged from the mining operation, are we saying that the treated water from a hydraulic fracturing process—when it cannot be recycled—is worse or better than water from a tailings dam—which is also released into the environment.

It appears as though hydraulic fracturing water is worse than what comes out of a tailings dam. Is that the case or are we making special conditions for hydraulic fracturing because it makes us look good, but scientifically is there any difference?

Ms LAWLER: It depends on the waste that is coming out of the mine and the type of mine. We are looking at the recommendations from the scientific inquiry, putting in place those recommendations. They were the guidelines for us, accepting, acting and implementing the 135 recommendations before we go ahead with hydraulic fracturing. We are doing the work that needs to be done so that we can move ahead. The issues you bring up about mining, may be things that can be addressed in the future. It is not about one industry against the other.

The report stated that the panel has serious concerns regarding any discharge of untreated or treated waste waters to temporary surface water, particularly in the Beetaloo Sub-Basin, and other semi-arid and arid regions. The panel notes that none of the gas companies have indicated that they would seek to discharge waste water, treated or not, to either drainage lines or waterways, when these are present.

It is about working on the 135 recommendations, implementing them in a comprehensive way. That is what we are seeing with these changes to the *Water Act*. The issues on water discharge from any of the mines you talk about are things that can be looked at when we work on the second half of the environmental reforms.

Most Territorians would want any discharge, whether from a mine or other, not to contaminate the waterways of the Northern Territory.

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Mr WOOD: Minister, we know by science—I used to be part of Waterwatch—dilution methods are commonly used for the discharge of wastewater. Otherwise, our sewerage would not be going into Darwin harbour—you would have to find another place and it would not be discharged into the watercourse. That process is not new and it is scientific.

I am concerned that if we use the Pepper inquiry recommendations as gospel, without them also being tested in this parliament, we get the same problems we did with the *Liquor Act*. We need to be able to ask the government to justify whether these particular recommendations make practical sense.

A classic example is the recommendation to charge hydraulic fracturing companies for water. What that leads to after that—I wonder where that is going to go. I understand, minister, that the company said they do not want to discharge water but at some other time–I do not know whether you should be looking at telling mining companies they are not going to be able to discharge water. When tailings dams get full in a major wet season, I am not sure what other way they are going to be able to discharge that waste.

I am happy to leave it at that but I do have a few words to ask about section 17(b).

Ms LAWLER: We are not telling mining companies that at this stage. What we are working through, is the changes to the *Water Act* and focussing on what we have in front of us today.

Mr WOOD: Could I just ask a question about 17B then please? Just on the reading of it and I listened to your response about this section and I know that is where you are bringing in this change. If you just read it as it was, I do not blame people for thinking that looks like you were going to allow hydraulic fracturing waste to come in contact with groundwater which obviously then people started to consider if that was a pollution as written under section 17A.

What I understand you were trying to say is that, where a company is reusing that water, then there will be an exemption but they are not, I presume, exempt from being careless with that water as to where it is held.

Ms LAWLER: Absolutely. They have to be very careful with that. The bill does not create any new authorisation, it only strengthens the regulation. Section 17B is not a loophole for pollution, it simply allows for the reuse of wastewater in fracturing operations, reducing, hopefully, demand for our precious water resources.

Amendment agreed to.

Clause 7, as amended, agreed to.

Clause 8:

Mr WOOD: Will the minister give us an explanation on 45A?

Ms LAWLER: I move amendment 3 to insert new clause 8A. It has been identified by the economic scrutiny committee that there is currently a power under section 47 of the act to gazette an exemption for activities relating to hydraulic fracturing from being required to comply with relevant requirements of the inquiry report.

This has been specifically identified as section 60A and 67 as new section 17A and 45A are not subject to section 47 exemptions. Therefore, new clause 8A has been proposed in this Assembly amendment to ensure that this is no longer a possibility.

This amendment provides certainty that an exemption cannot be granted under section 47 of the act or proposed new section 60A and 67(4).

Mr WOOD: I wanted to talk a little earlier on that section, Clause 8. Section 45A is what I wanted to talk about.

I raised that during our initial debate and it says no licence to take water for petroleum activities. It says the controller must not grant a licence under section 45 if the proposed beneficial use of water under the licence is petroleum activity.

I mentioned this before but under the explanatory notes, it says section 45 gives effect to recommendation 7.6. It prohibits the controller of water resources from issuing a licence to extract surface water. It talks about

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surface water but the clause 45A in the act does not mention surface water, it just mentions water. Should it be surface water, if the explanatory notes also say surface water?

Ms LAWLER: 45A talks back to section 45 which is surface water.

Clause 8, as amended, agreed to.

Clause 8A, by leave, agreed to.

Clause 9:

Ms LAWLER: Mr Deputy Speaker, I move amendment 4 to clause 9.

In clause 9 additional protections are offered to existing water bores where water is proposed to be extracted for hydraulic fracturing activities within one kilometre. New section 60A provides that in these circumstances that before a ground water extraction licence can be issued for the hydraulic fracturing there must be either written agreement from the bore owner or a hydrogeological investigation and ground water monitoring available.

The scrutiny committee also identified that the term used in Recommendation 7.8 of the Inquiry Report in relation to this issue is ground water modelling not monitoring. Accordingly, this has been changed in clause 9 in the Assembly Amendment.

The committee also recommended that the hydrogeological investigation and ground water modelling should be required to be to the water controller of Water Resources' satisfaction which will afford the controller a clear power to refuse the application if the investigations are considered inadequate. Clause 9 has also been amended to include this new requirement.

Amendment agreed to.

Clause 9, as amended, agreed to.

Remainder of the bill, by leave, taken together and agreed to.

Ms LAWLER (Environment and Natural Resources): Madam Speaker, I move that the bill be now read a third time.

Motion agreed to; bill read a third time.

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