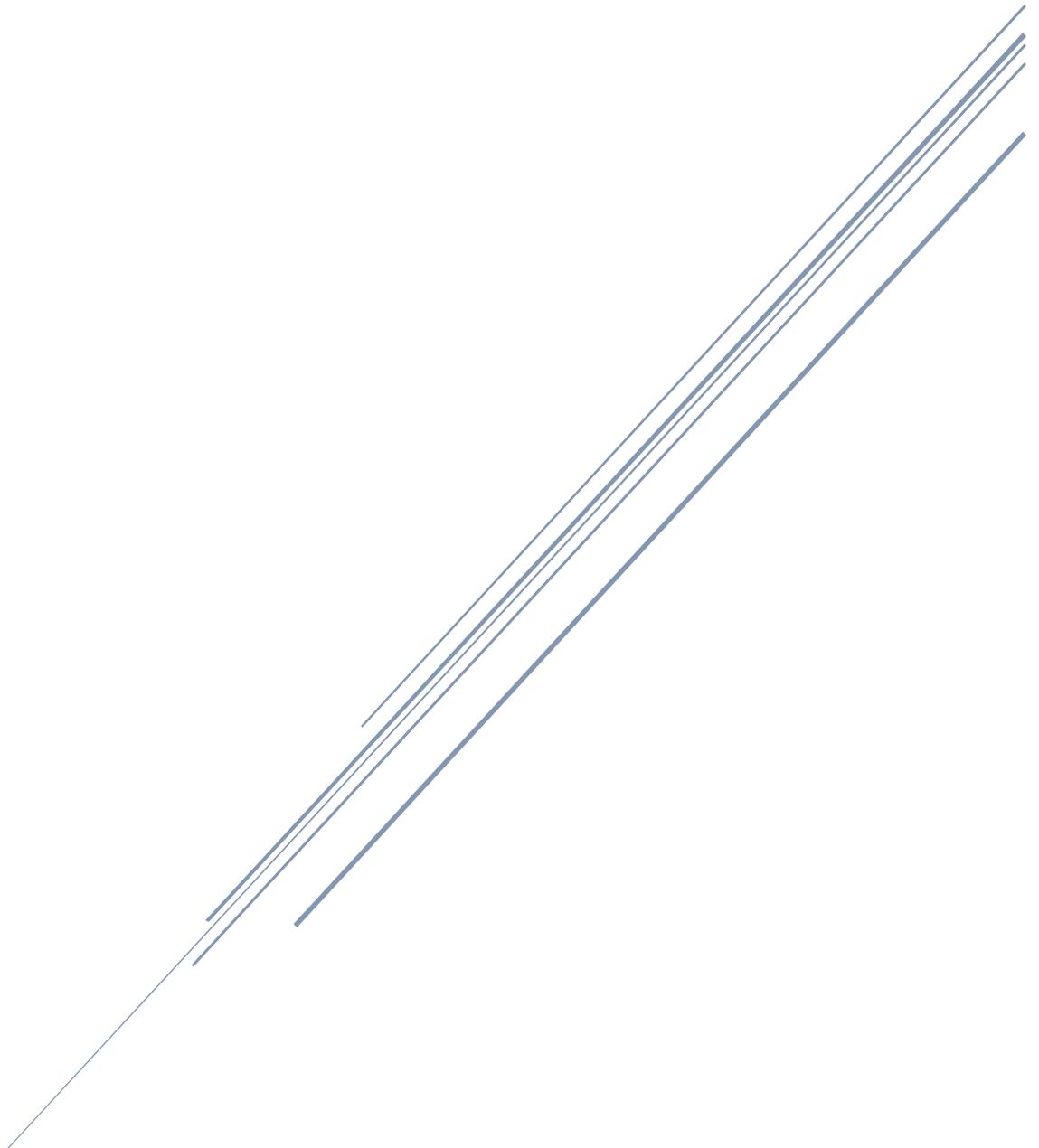


OFFICIAL

SUBMISSION 69 - COLIN BOYCE
MP - NATIONAL WATER REFORM
2024 - PUBLIC INQUIRY



Colin Boyce MP



Office of Colin Boyce MP
Federal Member for Flynn

Reference: 20240424/BOYCE Water Submission/MKF

Wednesday, 24 April 2024

National Water Reform 2024
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

Lodged online – 24 April 2024

RE: Submission – National Water Reform 2024 Interim Report

In my National Water Reform 2024 Submission in February this year, I outlined my concerns. A summary of which culminated in a pressing need for the Australian Government to prioritise investment in water infrastructure and limit self-made issues around increased consumption of water due to high immigration and the reckless rush towards renewable energy, no matter the cost.

I also highlighted the most troubling issue of the proposed CCS project by Glencore, to inject 300,000 tonnes of hypercritical CO₂ (carbon dioxide) fluid into the precipice aquifer of the Great Artesian Basin, the world's largest potable water source.

My further submission follows for your consideration.

Regards,

Colin Boyce MP
Federal Member for Flynn

A RECAP OF MY FEBRUARY SUBMISSION

If we are to continue to create our own issues of population increase and the renewables rush with hydrogen, then water must be treated as gold. We need to protect and preserve the resources that we are blessed to have in Australia and additional water storage projects should be encouraged. Injection of carbon dioxide into our largest potable water source needs to be stopped at all costs, for the sake of generations to come.

Projects such as the Nathan Gorge Dam were shovel ready decades ago, yet successive Governments have failed to continue the investments into water infrastructure in Queensland.

As Government policy for industrial hydrogen production continues, there needs to be better understanding of what this really entails. The water is used and destroyed in the production of hydrogen. Should we be committing vast quantities of our most valuable resource (water) to produce energy for overseas countries? Adding water at full cost recovery further compounds the economic problem.

There needs to be a balance between the environment and renewable energy projects, particularly where water is involved. Pumped Hydro in ecologically sensitive areas also needs to be prevented, with other options to be investigated as alternatives for water storage instead of destroying the Pioneer Valley. Again, this has the potential for destruction of our nations' waterways while we spend billions on importing the components from China.

With the recent approvals of completely unsuitable projects by the Environment Protection Biodiversity Conservation Act, I look forward to seeing the outcome of the Commission's Inquiry and encourage the Commission to consider the long-term effects of their policies.

ADDITIONAL CONCERNS AND INSIGHTS

Water Needs

Adding further to my concerns regarding the water needs for the rising number of immigrants and renewable energy.

According to the Institute of Public Affairs, "the latest figures from the Australian Bureau of Statistics, Australia's out-of-control migration intake has yet again reached unprecedented levels. In February, permanent and long-term arrivals exceeded 100,000 for the first time and in the 12-months to February 2024, net arrivals totalled a record-high of 498,270. In my opinion this imbalance between population growth and water supply (amongst other things) is deeply concerning and needs to be addressed at the immigration level, not just a water resources level.

As for renewables in the National Water Reform Interim Report of April 2024, I quote: "The transition to net zero carbon emissions will impact water usage across Australia. The United Nations Expert Group on Water and Climate Change presented preliminary figures to COP28 in November 2023, indicating that by 2030 clean energy mitigation measures alone are estimated to require 900 teralitres of fresh water globally per year (UN Water Expert Group on Water and Climate Change 2023, p. 1). For comparison, global freshwater consumptive demand by agriculture, industry, and domestic use in 2014 was 4000 teralitres (Global International Geosphere-Biosphere Programme 2015)."

These projects will not only decimate large areas of remnant native forest but take our much needed resource of water without triggering the environmental protocols that are cast upon the agriculture and mining sectors. Currently these protocols simply do not apply to the renewable energy sector and this needs to change. These projects are causing industrial scale destruction to native bushland whilst consuming one of our most limited and precious resources – water!

Water Trigger

In December 2023 Leader of The Nationals David Littleproud and I moved an amendment to the Environment Protection and Biodiversity Conservation (EPBC) Act so that the Commonwealth, as well as the Queensland Government, undertakes appropriate assessments of carbon sequestration projects.

The current proposal by Glencore to Pump CO₂ into the Great Artesian Basin is unthinkable. The whole National Water Reform focuses on the looming scarcity of water, to not have triggers in place to assess and prevent CCS projects into the GAB is a crime.

GAB is unique, there is only one of its kind in the world. It is the world's largest underground potable water source and covers 22% of the area of Australia, 79% of Qld, 1.7 million square km, and is estimated to carry 65,000 cubic kilometres of water.

Glencore are seeking approval to inject 300,000 tonnes of hypercritical CO₂ (carbon dioxide) fluid into the precipice aquifer of the GAB at a trial site at Moonie, western Darling Downs. It has been claimed the GAB site has potential to store 1 billion tonnes of hypercritical CO₂ fluid.

Glencore have said this will lead to deterioration of environmental values of the receiving ground water.

Glencore said in their technical assessment report that nobody should be allowed to draw water in close proximity to their injection site nor in a zone around the injection site. Effectively saying the water will be useless after injecting CO₂.

Glencore cannot meet current environment regulations. They are making application to the Qld Government to change the environmental regulations to allow them to put hypercritical fluid into any water aquifer in Queensland.

If they are successful in changing these regulations it will open avenues for anybody to take up sequestering technology and inject their carbon waste into the Great Artesian Basin.

Given the implementation of the safety net mechanism, this will have huge ramifications given that 215 of the largest emitters in Australia can't find enough carbon offsets and will look to this technology. 30% of these industries are in Central Queensland.

There is no reference to addressing the potential impacts on the GAB in the rehabilitation plans for Glencore.

The University of Queensland Surat Deep Aquifer Appraisal Project (UQ-SDAAP) Supplementary Detailed Report, 30th April 2019 makes for some very alarming reading:

“The UQ-SDAAP study has identified around sixty individual risks and opportunities, including technical, environmental, social, legal and regulatory risks related to a notional commercial-scale CCS project in the Surat Basin”.

“During the CO2 injection period, there is a risk of pressure increases leading to unwanted flow and or mechanical damage and changes to the water chemistry of third-party bores. The likelihood of this risk is considered to be high, and it therefore needs local assessments.”

“Actual injection performance may be low due to the significant decrease of permeability values with depth.”

“A potential risk of CO2 leakage from the Blocky Sandstone Reservoir into shallower aquifers through legacy wells (registered and unregistered bores). CO2 may flow through Transition Zone and Ultimate Seal where sufficiently low capillary pressure exists and lead to acidification of shallower aquifers and pressure increases in overlaying formations in which third party operators have an interest. It may also result in a loss of storage performance, shut down of CO2 injection operations, or a decrease in water quality such as the potential for release (and/or transport) of metals at levels exceeding water quality guidelines and current in situ concentrations.”

The non-technical forward-looking risk register in this report shows the following risks (and more not listed here) as high consequence/high probability:

Non-technical risks						
Consequence	5	R33	R27	R25, 26 & 49	R30, 31 & 37	R28 & 32
	4	R46	R29	R35, 36 & 38	R34 <i>(also an opp)</i>	R35
	3	R47 & 48				
	2					
	1					
		1	2	3	4	5
		Probability or Likelihood				

R28: Legal and regulatory: Environmental protection regulations prevent injection of waste

Carbon dioxide from power stations looks likely to be classified as waste under the Environmental Protection Act (1994), restricting the ability for injection. There are currently no ‘end of waste’ codes or approvals which apply to CO2 and granting approval must consider whether the waste may cause temporary or permanent environmental harm. This risk highlights a significant possible impediment to the project in the current Queensland regulations. Hence, it is considered to be a major risk which will require the clarification of the regulatory roadmap for large-scale CCS investments in Queensland.

R32: Legal and regulatory: GABORA (nor EPBC) does not yet consider large scale injection impacts

Water resources are a matter of national environmental significance. The Commonwealth, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is currently “triggered” when coal seam gas and large mining developments impact water resources. The 2013 EPBC Act Amendments which instantiated this trigger are silent on large scale CCS developments.

In addition, the Water Act and GABORA seek to protect groundwater resources which appears to be in direct conflict with large scale injection.

Answers to questions on notice relating directly to R32 (Annexure A)

On the 12th of February 2024 during Senate Estimates the following question was asked on notice. “What specific advice has the CSIRO given the environmental departments as to the risks of pumping up to 730 million litres of CO2 into the Great Artesian Basin?”

The response provided to said question:

“On 9 February 2022 the Department of Climate Change, Energy, the Environment and Water determined that the Surat Basin Carbon Capture and Storage Project, Queensland (EPBC 2021/9122) was not a controlled action, so did not require further assessment and approval under the Environment Protection and Biodiversity Conservation Act 1999 (the Act). “

CONCLUSION

Fresh water is one of the most diminished resources on the planet. Exactly who is entitled to own it. Selling water overseas in the form of hydrogen, wasting water in the reckless rush to renewables, allowing the largest influx in immigration whilst rationing water in some localities, endangering our largest potable water source are all madness and need to be addressed. Measures need to be put in place to stop the damage these decisions are inflicting on our water source and our way of life.

REFERENCES

The University of Queensland Surat Deep Aquifer Appraisal Project (UQ-SDAAP) – Supplementary Detailed report – Risk Register Report – 30th April 2019

Institute of Public Affairs – New ABS Data Confirms Monthly Migration Intake Exceeded 100,000 For First Time In History – written by Daniel Wild – 17th April 2024

Environment and Communications
Answers to questions on notice
Climate Change, Energy, the Environment and Water Portfolio

Question No: SQ24-000036
Hearing: Additional Estimates
Outcome: Outcome 2
Division/Agency: Nature Positive Regulation Division
Topic: Advice given to departments - CO2 into the Great Artesian Basin
Hansard Page: 60
Question Date: 12 February 2024
Question Type: Spoken

Senator Rennick asked:

Senator RENNICK: What specific advice has the CSIRO given the environmental departments as to the risks of pumping up to 730 million litres of CO2 into the Great Artesian Basin?

Senator McAllister: Senator Rennick, it might assist officials if you are a bit more specific. I assume that—

Senator RENNICK: I'm referring to the proposed trial that is going to be undertaken by Glencore. They are going to take CO2 emitted from the Millmerran power station and they're going to pump it into the Great Artesian Basin at Moonee.

Senator McAllister: Thank you. That's helpful.

Ms Evans: We might have to take it on notice. We have never received any advice along those lines. Maybe we need to leave it at that. I am not sure how much involvement we actually have with that project.

Mr Gaddes: That seems like the sort of thing that would be sent to an environmental regulator to assess. We might support it through various different grants programs. I am not sure that we are supporting that one through a grants program. It seems like the sort of advice that might be provided to the environment side of the department or to a state regulator. As Ms Evans noted, we will take it on notice and go and see what we've got on our records.

Senator RENNICK: Okay. You say the environmental regulator. Which environmental regulator?

Mr Gaddes: It could be the state EPA or our colleagues in outcome 2, who do EPBC Act assessments.

Senator RENNICK: What is the name of their department?

Mr Gaddes: I haven't followed all of that.

Senator RENNICK: We are now in outcome 1.2 now, not 2.1?

CHAIR: That's right. We are in 1.2.

Mr Gaddes: It is outcome 2 this evening. I will come back to you on notice with the name of the state department because they change as frequently as the Commonwealth departments.

Answer:

On 9 February 2022 the Department of Climate Change, Energy, the Environment and Water determined that the Surat Basin Carbon Capture and Storage Project, Queensland (EPBC 2021/9122) was not a controlled action, so did not require further assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (the Act).

The delegate of the then Minister, The Hon Sussan Ley MP, determined that the project was not likely to have a significant impact on Matters of National Environmental Significance that are protected under the Act. No advice was required from CSIRO to make this finding.