HEALTH AND ENVIRONMENT COMMITTEE

Members present:
Mr AD Harper MP—Chair
Mr SSJ Andrew MP
Ms JM Bush MP
Mr R Molhoek MP
Ms JE Pease MP
Dr MA Robinson MP
Ms KE Richards MP

Member in attendance:
Mr N Dametto MP

Staff present:
Ms S Galbraith—Committee Secretary
Ms R Stacey—Assistant Committee Secretary

PUBLIC HEARING—INQUIRY INTO THE ENVIRONMENTAL AND OTHER LEGISLATION (REVERSAL OF GREAT BARRIER REEF PROTECTION MEASURES) AMENDMENT BILL 2021

TRANSCRIPT OF PROCEEDINGS

FRIDAY, 11 JUNE 2021

Brisbane

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The committee met at 10.31 am.

CHAIR: Good morning and welcome to this public hearing on the Environmental and Other Legislation (Reversal of Great Barrier Reef Protection Measures) Amendment Bill 2021. I now declare this public hearing of the Health and Environment Committee open. I acknowledge the traditional owners of the land on which we are meeting today and pay my respects to elders past, present and emerging. I am Aaron Harper, member for Thuringowa and chair of the committee. Rob Molhoek, member for Southport, is our deputy chair. Stephen Andrews, I believe, is running late. We have with us Mark Robinson, the member for Oodgeroo; Joan Pease, the member for Lytton; and substituting for the member for Pumicestone Ms Jonty Bush, the member for Cooper. We also have a visiting member, the member for Hinchinbrook, Nick Dametto. Welcome.

Mr DAMETTO: Thank you, Chair.

CHAIR: I also give notice that from 1.45 this afternoon fellow chair Kim Richards, member for Redlands, will substitute for me as chair of the committee for the remainder of the hearing.

The purpose of today's hearing is to assist the committee with its inquiry into the Environmental and Other Legislation (Reversal of Great Barrier Reef Protection Measures) Amendment Bill 2021. This hearing is a formal proceeding of the parliament and is subject to the Legislative Assembly's standing rules and orders. The hearing is being recorded by Hansard and is being broadcast live on the parliament's website. I remind those present today that it is possible you might be filmed or photographed during the proceedings and that images may appear on the parliament's social media. I note we have witnesses joining us today via videoconference. We may therefore suspend proceedings briefly while we connect. I thank you for your patience on this matter. Finally, I ask that mobile phones are switched off or to silent mode.

HENRY, Ms Nyssa, Chief Scientific Officer, Reef Policy, Office of the Great Barrier Reef, Environmental Policy and Programs, Department of Environment and Science

NICHOLS, Ms Elisa, Executive Director, Office of the Great Barrier Reef, Environmental Policy and Programs, Department of Environment and Science

SMYTH, Ms Louise, Director, Reef Policy, Office of the Great Barrier Reef, Environmental Policy and Programs, Department of Environment and Science

CHAIR: I now welcome representatives from the Department of Environment and Science. I invite you to make a brief opening statement.

Ms Nichols: Thank you for the opportunity to appear before this committee. I would also like to start by acknowledging the traditional owners of the land on which we meet today, the Jagera and Turrbal people, as well as the traditional owners of the Great Barrier Reef land and sea country, and pay my respects to their elders past, present and emerging.

I will firstly provide an overview of the reef regulations, which commenced in December 2019 and are being rolled out over three years, to 2022, based on water quality priorities. I will then give an update on the progress towards reef water quality targets outlined in the Reef 2050 Water Quality Improvement Plan.

The reef regulations are a package of measures that are aimed at improving the quality of water that has impacts on a range of Great Barrier Reef ecosystems, not just corals. This includes, for example, the smothering of seagrasses and mangroves by sediment and the impact of algal blooms caused by nutrient run-off on inshore corals and fish-breeding habitats such as mangroves.

The reef regulations set pollution load limits for each reef catchment to: target water quality responses; set minimum agricultural practice standards to limit sediment and nutrient run-off being lost off farm; set standards for the provision of advice to regulated producers; establish a framework to recognise industry best management practice farmers; regulate new cropping and horticultural

activities on land without a cropping history via an environmental authority or permit; and set higher stands for new resource or prescribed environmentally relevant activities, such as aquaculture development, to ensure new development does not worsen the reef water quality problem.

The reef regulations introduced the requirement for the Minister for the Environment to set objectives for reduced contaminant loads to Great Barrier Reef catchments. These objectives ensure environmental and planning decisions consider water quality outcomes targeting sediment and nutrient pollution. Pollution load limits for the 35 river basins that flow to the Great Barrier Reef have been set under the Environmental Protection Act through the Environmental Protection (Water and Wetland Biodiversity) Policy 2019. The load limits reflect the sediment and nutrient load reduction targets in the Reef 2050 Water Quality Improvement Plan.

Minimum practice standards have been set for sugar cane, cattle grazing and banana production with a proposal to also have standards in place for grains and horticulture by December 2022. The standards require farmers to implement fertiliser application and erosion control practices that have lower water quality pollution risks. They align with industry's accepted practices and have been shown to maintain or improve productivity and profitability in on-farm trials. The standards do not impose any new requirements for the application of pesticides or herbicides other than the keeping of records. The requirements for pesticide and herbicide applications are outlined in the Chemical Usage (Agricultural and Veterinary) Control Regulation 2017.

The Queensland government has committed to making no changes to the minimum practice standards for five years. The standards apply to all reef regions with the exception of Cape York, as the water quality targets have been reported as being met in the most recent reef water quality report cards.

For sugar cane, the minimum practice standards for the application of nutrients align with industry's own Six Easy Steps methodology, the Smartcane best management practice program has received formal recognition under the regulations, meaning that accredited farmers are considered to meet the minimum practice standards and are the lowest priority for compliance visits. Results from compliance action by the Department of Environment and Science show that, at initial engagement, approximately 45 per cent of sugarcane growers are either compliant with the minimum practice standards or voluntarily engaged in one of the practice change programs. On follow-up engagement that number has increased to 64 per cent, demonstrating that a regulatory approach incentivises farm practice change.

With respect to grazing, the minimum practice standards focus on practices to reduce the likelihood of soil loss and sediment run-off into waterways and, consequently, the Great Barrier Reef. They are simple, outcomes based standards aimed at improving land condition across grazing properties. The standards require graziers to implement measures to keep land in good or fair condition. If the land is in poor or degraded condition, graziers must take steps to improve that land condition or prevent land from degrading further. Under those standards, the landholder can choose which measures to implement to improve those areas as is suitable to their own property.

Regarding the banana minimum practice standards, growers are expected to reduce sediment loss and apply below-threshold nitrogen and phosphorous rates or follow a nutrient management plan. Banana growers who are accredited under the Freshcare program are recognised as the lowest priority for compliance, so that has been formally recognised under the Environmental Protection Act now. Freshcare is the program that Coles and Woolworths require producers who are providing produce to them to adhere to.

The reef regulations also introduce the requirement for an environmental authority, or a permit, for new commercial cropping and horticultural activities. This allows for growth in agriculture while not undoing the progress made to date towards achieving the water quality targets. The permit will condition new farms to meet design standards that minimise nutrient and sediment run-off into receiving waters that flow to the reef. This requirement commenced on 1 June 2021.

Extensive consultation occurred on the ERA standard and application document which allows activities occurring on less than 100 hectares or relocating banana plantations due to Panama disease to make a standard application—a faster and cheaper process. The environmental assessment for site-specific applications, activities over 100 hectares, is limited to consideration of nitrogen and sediment impacts only, as opposed to the normal assessment process under the Environmental Protection Act which is a broad assessment process. Considerations such as air and noise are not taken into account.

To ensure continuous improvement, the reef regulations require the minister to review the extent to which the regulations have been effective in reducing nutrient and sediment loads in the Great Barrier Reef catchment. The first review must commence by December 2022 and be completed within a year.

The regulations are just one part of a suite of initiatives under the Queensland Reef Water Quality Program that the government is investing in to rapidly improve reef water quality while supporting productive and profitable industries. The Reef Water Quality Program is a $270.1 million Queensland government investment over five years. It includes a suite of initiatives such as voluntary projects and grants, extension and education, on-farm trials, rehabilitation and monitoring. It complements funding and programs delivered by other partners, in particular the Australian government's Reef Trust and the Great Barrier Reef Foundation Reef Trust Partnership.

This morning, Minister Scanlon and the Deputy Premier announced ahead of the budget that a further investment of $270 million over five years will be made by the government into reef water quality. The new funding will help deliver critical programs to accelerate the progress towards the targets by improving land management, building regional capacity to deliver water quality outcomes and delivering, supporting and translating the best available science.

The Paddock to Reef Integrated Monitoring, Modelling and Reporting Program, P2R, provides the framework for tracking and reporting progress towards the Reef 2050 Water Quality Improvement Plan targets. This program delivers the reef water quality report cards, with the 2019 report card being the most recent. It was released earlier this year, in February. While the 2019 report card states that the overall in-shore marine condition remained poor, the report card shows progress on water quality improvement from the agricultural sector. For example, there was very good progress towards the dissolved inorganic nitrogen target across the Great Barrier Reef catchment, with an estimated annual reduction of 4.3 per cent, bringing the cumulative reduction to 25.5 per cent towards the 60 per cent target since 2013. Farmers were the main contributors to these improvements, with the largest increases in best management nutrient practice for sugar cane up 6.1 per cent in the Wet Tropics and 6.3 per cent in the Burdekin. These improvements are positive, but there is still a lot of work to do to achieve the targets. In addition, there is expected to be a lag time between improvements in reef water quality and subsequent improvements in the condition of in-shore coral reef seagrasses and other habitat types of the Great Barrier Reef.

While the Queensland Reef Water Quality Program aims to improve water quality, it is not expected to occur at the expense of the agricultural sector. There has been a suggestion that the regulations are impacting on sugar production; however, the department has been reviewing the available production data, including data from Sugar Research Australia, and this data does not appear to substantiate that claim. The department's analysis of the last 20 years of sugarcane production in the Burdekin region shows that, while sugarcane production and the total area under cane have decreased, the amount of cane produced per hectare has actually increased over the last 20 years. Many factors influence variations in production and yield, including weather conditions, soil health and management practices. I would like to seek the committee's permission to table the department's review of production data which provides a high-level analysis of these factors to support this.

CHAIR: Is leave granted? Leave is granted.

Ms Nichols: I welcome the questions of the committee. Thank you.

CHAIR: Thank you very much, Ms Nichols, for that update. I reflect back to the Environmental Protection (Great Barrier Reef Protection Measures) and Other Legislation Amendment Bill 2019. I wanted to ask about the consultation, because I have seen pages and pages up and down the coast. If members will indulge me for a moment, I note that former chair Duncan Pegg wrote the foreword and was very much a part of this. After his passing yesterday, when I turned that page it really hit home, the amount of work that had gone in. We are all going to miss him incredibly.

Mr MOLHOEK: Hear, hear.

CHAIR: I want to talk about that body of work that started in 2019. Would you regard the consultation process as being extensive during that committee report?

Ms Nichols: For us, the consultation process started in 2016. We did three years of consultation before the bill was introduced into parliament, so the committee process came on top of the departmental consultation. We did targeted consultation with key stakeholders through the whole life of that process. We had an agricultural stakeholder advisory group—in fact we still do—which includes all of the peak bodies and also the peak research bodies. We also consulted regularly with

the conservation groups. In addition to that, we had two full rounds of public consultation as well as multiple consultation sessions up in the reef regions with affected producers. We continue to engage on the implementation and have done a lot of consultation on the new cropping requirements. We are currently in the middle of information sessions now that they have formally commenced, so our engagement continues and we try to engage extensively as much as we can.

CHAIR: Thank you. I should have articulated that, because I just saw pages and pages and obviously it has been over a number of years. There was a lot of work to lead up to that. Before I open up to questions, I want to go to the science behind what is happening in the water quality report card. Does it come out every five years?

Ms Nichols: No. The water quality report card is an annual report card, although there is occasionally a year skipped because we are updating our models behind it, which are a bit large. I think you are thinking of the Scientific Consensus Statement, which we update every five years. The latest version of that was 2017, and we are actually in the planning process for updating for the next version, which will be over the next year.

CHAIR: I might go to Ms Henry to articulate from a science basis where things are at since those amendments were made in 2019. How is it progressing? I believe Ms Nichols made some comments around a difference of 45 per cent to 64 per cent in the regulatory approach, I think it was, around sugarcane growers.

Ms Nichols: What we hope to gain through the regulatory approach towards the targets? I think that might be the reference to those models.

CHAIR: Yes. In a really practical sense, where are things at? How is it shaping up?

Ms Henry: The latest Reef Water Quality Report Card, the 2019 report card, details progress up to June 2019 and that was released in February this year. The findings of that one assessed inshore marine condition, and that assesses things like seagrass from a range of indicators, inshore coral health across a range of indicators and water quality. The findings from that report card show that the marine condition overall remains in poor condition, with coral and seagrass remaining in poor condition still as of that year.

There was some progress towards some of the water quality progress targets, such as the dissolved inorganic nitrogen target. The greatest reduction overall was in the Wet Tropics and Burdekin regions, with 7.4 per cent and 4.5 per cent respectively. However, there was poorer progress towards the sediment target, with only 1.3 per cent being the greatest reduction overall out of any catchment, and that was in the Mary catchment in the south. Those reductions in the dissolved inorganic nitrogen were mostly driven by some changes in the uptake of best practice nutrient management. That is our biggest uptake we have had to date. That was an increase of about 6.3 per cent and 6.1 per cent respectively for the Burdekin and Wet Tropics regions. That is our best progress to date towards that target.

There is some evidence on the ground that with the regulations we will see more soil testing coming on board now from the cane industry and more people getting into the Smartcane BMP program run by canegrowers as a result of the regulations. We are getting some good feedback on the ground and seeing some green shoots of progress change in those areas. However, as the Independent Science Panel has assessed—and it is supported by the 2017 Scientific Consensus Statement—we do need faster progress to the water quality targets within this decade to really make an impact before we get more frequent back-to-back climate change in the next decade.

Mr MOLHOEK: At the risk of being a bit indulgent, I will add my comments to the chair's comments about the former chair, Duncan Pegg. I did not know him perhaps as well as you did, but I know he was a hardworking member. While our ideologies might be a bit different, I think we all have the best interests of our communities at heart and he certainly was very well regarded in his community. I had the privilege of attending a few functions that he was at and got to see firsthand just how much people loved him and appreciated him. I extend my sympathies very much to his family. Like you said, he will be missed.

I would like to ask some questions around the water quality report cards. Please indulge me a little because I am new to this portfolio area so I do not have a lot of history around the previous legislation, except as a member speaking on the bill at the time. I am curious about the water quality report cards inasmuch as how much historical data we have. With some of the assumptions in the reports that we are now producing, do we have comparative data? Do we know where it was, where it is and where it is going?

Ms Henry: There are multiple lines of evidence that go into the Reef Water Quality Report Card. It is really just an aggregator of a whole range of data. The primary data that supports the report card is the Paddock to Reef Integrated Monitoring, Modelling and Reporting Program, which is a joint state and federal funded program. That assesses a range of indicators from the paddock to the end of catchments to the inshore marine health. For example, with the water quality data, we have water quality monitoring that goes back to the 1970s and 1980s. We have water quantity monitoring that goes back to the early 1900s. We have remote sensing that goes well and truly back into the 1960s and 1970s. We also have our dedicated program which has been supporting the program and has been operational since 2009, and its precursor program started in about 2005-06.

We also use things like long-term sediment tracing, which can go back quite a long way. Things like coral cores can also tell you historical trends, and there are many other types of scientific studies that are summarised through the Scientific Consensus Statement, which is updated five yearly. That pulls together 2,001 independently reviewed scientific studies and informs what we call the consensus statement. The statement itself is like an 18-page summary of about 650 pages worth of scientific summary by 48 independent scientists which is overseen by the Independent Science Panel and two external reviewers.

The way it works is: we update the published summary of science every five years for the consensus statement and then we track annual progress through the Paddock to Reef program and report it through the Reef Water Quality Report Card. For example, for the inshore marine condition, that data comes from the federal Great Barrier Reef Marine Park Authority and it is collected by agencies such as the Australian Institute of Marine Science and universities like JCU and UQ. On the catchment side, most of the monitoring is done by Queensland government departments as well as NRM organisations in each region as well as some industry groups. For example, Tully Sugar collects the data for the Tully region. They are our main sampling partners for that area and we work quite positively with them. In places like Cape York, where it is a bit more remote, some of our Indigenous rangers actually assist us with the monitoring in those programs.

We have a really intensive monitoring program over about 104 monitoring sites now which covers over 90 per cent of the water quality that flows to the Great Barrier Reef. That data is then used to validate the modelling. The reason we use the modelling to put progress to the targets is that it really removes that annual variability with rainfalls. When you gets lots of rainfall, you get lots of loads of pollutants delivered and you get poorer water quality. Then in drier years, when there is less rainfall and there is less run-off, you see improvements in water quality. If you do not use modelling, all you are seeing is a noise year to year, going up and down along with rainfall.

We model based on our data back to 1986 over a set climate period to really examine what is the land management and land use change through our programs such as state and federal grants programs, as well as industry uptake through BMP and things like that. We use a multiple-lines-of-evidence approach and a combination of monitoring and modelling at the paddock and catchment scales, validated against remote sensing and intensive monitoring. There are a lot of technical reports on our Reef Plan website, if you are interested in methodology. It has summaries for each component of the program about how the data is collected, who collects it and at what scale.

Mr MOLHOEK: In my time in council we used to see reports on, say, Moreton Bay and the Broadwater and they would track things and every year there would be a score and you would see these wonderful graphs, tables and certain different variants that were measured. Is that reporting available? Were those reports presented last time this legislation came before the parliament as part of the process?

Ms Nichols: Those reports are annual reports that we release regularly. The website is www.reefplan.qld.gov.au. They are online report cards and you can drill down into immense levels of detail now.

Mr MOLHOEK: And it has historical data as well, so you have comparative data?

Ms Nichols: Yes. All of the report cards are up there.

Mr MOLHOEK: Chair, I ask that, at the very least, we get that link circulated to the committee so we can have a look.

CHAIR: I am sure the secretariat will do that.

Mr MOLHOEK: Thank you.

Ms Nichols: We are also happy to come and walk you through it at another time.

Mr MOLHOEK: I just want to understand it. In reading through all of the reports this week, I can see lots of discussions around the science and lots of information, but there are not too many tables or as much comparative data. I am interested in seeing where it is trending and what is actually happening. I assume there would be different data for different catchments and different areas?

Ms Nichols: That is right.

Mr MOLHOEK: I just want to understand that rather than just hear opinion, I suppose, or commentary.

CHAIR: There must be some good data. I think I read recently that 20 years ago it was two degrees cooler in Queensland, so there is something happening in the wind.

Mr DAMETTO: I thank the department for coming this morning and giving evidence on the policy objective of the department when it comes to the reef and describing some of the work that has happened up until now. My first question is around this baseline that the member for Southport was alluding to. How far back do the current report cards go?

Ms Henry: The Paddock to Reef program began in 2009 and we developed our first report card in 2009, so we count any progress towards the targets back to that date. However, as you know, every five years we like to keep our methodology the same, and then where there are advances in the science we update our methodology every five years. You can see on the website the report card cumulative progress to date. That goes back to the original 2009 baseline. However, that was updated again in 2013, which is what the current targets are based on. The current water quality reduction targets are additional from 2013 and they are set for achievement by 2025, but they do incorporate already that progress made between 2009 and 2013. That is all outlined in a technical report on our website which was done by James Cook University, which was the independent group that produced the water quality targets originally.

Ms Nichols: Do you want us to give a brief summary on how we set the baseline?

Mr DAMETTO: That would be very helpful.

Ms Nichols: One of the confusions is that we do not take into account progress that is not part of our programs, and that is not quite correct.

Mr DAMETTO: If I can interrupt, the reason I am asking this question is that I am trying to establish how far back we are getting this baseline from. I just want to give you some context of where I am heading with this. We are talking about the inner reefs having poor quality in the latest report. How far back do we go to where it was actually in good condition?

Ms Henry: The Australian Institute of Marine Science's dedicated monitoring program for coral health began in the mid-1980s so their data goes back to the mid-1980s. However, there are many single reports that predate that. Some of their work around the coral coring and sediment tracing goes back much further, so there are multiple lines of scientific evidence that are used to establish that longer term history but a dedicated intensive, scientifically robust program has been operational since the 1980s for that data. That is for coral.

The Department of Resources has had monitoring programs for water quality since 1970 onwards, and that is a large-scale program. Certain sites have recorded data even longer than that. The flow monitoring has gone back to the early 1900s. The tracing definitely can take you back further than that. We have also had the satellite imagery robustly since the 1980s onwards.

Mr DAMETTO: When was the last time we called the inshore reefs in good condition and the water quality there good condition?

Ms Henry: Overall, it is assessed as in poor condition. It does fluctuate year to year. The inshore reef is affected by multiple things, not just water quality. Things like temperature changes and the mass back-to-back bleaching that we have had recently have also impacted it, but there has been an overall steady decline. The summation of the data from the Australian Institute of Marine Science has shown a clear overall declining trend consistently across the Great Barrier Reef since the monitoring began, from 1980 until now. You can see it varies by region. There has been less of a decline in some regions than others. For example, Cape York used to be fairly good until the back-to-back bleaching, which has caused a massive decline since then, but there are slow signs of some recovery in that area. The central Great Barrier Reef, which is the Wet Tropics to Burdekin, Mackay-Whitsunday—that central area—has been in quite a long decline in the recent monitoring. The southern region has been variable. It also was okay, but you might remember the big flooding they had around 2013. A lot of the sediment that came out of there really wiped out some of those

really significant seagrass areas in the southern part of the Great Barrier Reef. The seagrass cover completely declined, and that corresponded with declining numbers of turtles and dugongs after that flooding event.

We have seen some recovery slowly coming back now. It is still overall in poor condition. It has come from very poor to poor, but there is at least some small level of recovery in those areas. The seagrass across the whole of the Great Barrier Reef, of which 77 per cent is in the inshore zone, is still assessed as poor condition overall for the inshore reef, as are inshore corals, which are also within that zone.

Ms PEASE: Thank you very much for coming in today. I have a couple of questions with regard to your opening statement. I want to get some clarification on that. You mentioned that the banana growers have been doing a lot of work in the area and have been quite supportive of the new regulations. You also mentioned that the large supermarkets are supporting that. Can you just rephrase that or go back over that for me, please?

Ms Nichols: Sure. It is not so much that the large supermarkets are supporting it. The supermarkets use the Freshcare tool as a way for producers who are providing to then demonstrate that they meet a whole range of standards like workplace health and safety, environmental standards—a whole range of things—and that Freshcare methodology has been adapted for the purposes of also recognising the minimum standards in the reef regulations for bananas. That has been formally recognised under the Environmental Protection Act as meeting those minimum standards now. Freshcare accredited banana producers meet the minimum standards, and that is a great outcome from a minimal red tape perspective, because they are already having to comply with Freshcare because of the market requirements. That is where we are tying into that.

Ms PEASE: Do you have any information around the number of banana growers that would meet that criteria?

Ms Nichols: I do not, but I can take that on notice. I do not have the number in front of me.

Ms PEASE: You mentioned in your opening statement that there has been an increase in sugarcane production over the last 20 years. Could you just go over that again for me, please?

Ms Nichols: Not in sugarcane production but in productivity in the Burdekin region is the analysis that we have done. The document that I tabled earlier shows the data from industry sources about the amount of cane produced and the area harvested and the trend across that. Particularly in the last few years in the Burdekin, the level of production has been more tonnes per hectare. That has been a really good result in those regions. The implication of that is—and the regulations that are currently applied to sugar cane are the same regulations that have been in place since 2010—that the regulations are not impacting on productivity, which is to be expected as they align with Six Easy Steps and the methodology that industry promotes.

Ms PEASE: They have been successful in the uptake and following the new regulation?

Ms Nichols: Yes. I did talk about those compliance rates and they are variable. There are high levels of participation in programs in the Burdekin and other areas and, as the report card results show, the Burdekin was one of the areas with the highest improvement in nutrient management practices in the last report card. There are definitely improvements going on there.

Dr ROBINSON: Since the early eighties until now, in terms of the inshore impacts of nutrients/chemicals seen to be primarily from farming, in my study of marine science in the early eighties, prior to 1985, it seemed to be considered that there was low impact from farming on inshore reefs, certainly when they looked at cross-sectional sedimentation and proportions of chemicals found when you do a cross-section of inshore through middle to outer reefs—almost zero pact on middle and outer reefs and minimal impacts or low impacts on inner reefs. Over the last 30 years or so, what degree and what proportion of farming is impacting on the reef? We are looking at some of these issues in water quality and reef condition. Is it possible we are disproportionately blaming farming when there are a range of other factors as well? How do you drill down through the politics into the pure science of that?

Ms Nichols: We can talk to that. Nyssa will be able to talk to the percentages of contribution from farming. Obviously there has been a lot of improvement in understanding the science since the early eighties, and there is some very interesting recent science which is showing, for example, how far fine sediments reach out into the reef. The primary area of influence that we are interested in for water quality is the inshore area and not the outer shore areas, which, as others have rightly said, are not very affected by water quality.

Ms Henry: You might want to have a read of the Reef Water Quality Independent Science Panel's response and the Scientific Consensus Statement. There is an 18-page summary document for the 2017 Scientific Consensus Statement which pulls together across five chapters a summary of all the peer reviewed science. The last one is about 1,600 papers that have been pulled together and summarised, looking at the impacts of water quality on the health of the Great Barrier Reef. It is quite clear in saying that the highest risk is the inshore area of the reef, which is a very important section of the reef.

I know that a few people like to cherrypick the coral statistic for the inshore reef, ignoring the fact that 77 per cent of the seagrass is in this area, which is fundamental to fisheries production as well as many species that depend on that inshore area of the reef. When the reef was nominated for World Heritage status, they did not just look at coral only; they looked at the range of values, and that includes things from freshwater wetlands to the mangrove areas, saltmarshes, sponge gardens, inshore seagrass and inshore corals. It is also where the majority of the tourism is based. Around the islands of Mackay-Whitsundays, for example, is considered inshore areas, and that is where 45 per cent of the tourists usually—without COVID—go to. It is a really valuable part of the reef. It is a bit cherrypicking the science to focus on the percentage coral.

Overall it is about seven per cent of the Great Barrier Reef total area, but that area has had some strong evidence of water quality decline. Monitoring in the 1980s did show there was a—you might want to read some of reports of the late Jon Brodie, from James Cook University, who had been monitoring in that area since the 1980s. There are also things like the reports of Steve Lewis from James Cook University. You might want to look at some of those. They look at some of the coral cores and sediment cores. You can really see when the Burdekin was opened up to grazing. It is a real signature in the coral. As in tree growth rings, you can see in the coral a signal when grazing essentially was opened up. There has been about a fourfold to fivefold sediment load increase since grazing was introduced to the Burdekin, and that coincides with some of the hiatuses in coral growth as well, responding to the big flood events in the Burdekin.

The Burdekin is quite an important system. Some of the water quality from the Burdekin travels up the coast and its end point is the Daintree, which is that crown-of-thorns starfish initiation zone. The water quality from the Burdekin is quite a significant system. It combines with all the rivers from the Wet Tropics, for example, where the coral reef system is really close to the coast. That is why those zones are quite important, because it is mid and inshore zones for the Wet Tropics that are affected by the water quality, whereas with the Burnett-Mary or Fitzroy it is mostly constrained to the inshore zones because the corals are a little bit further off the coast.

Ms Nichols: Do you want to give the statistics for the percentage of contribution to water quality from agriculture versus urban?

Ms Henry: The Scientific Consensus Statement has identified that the water quality contribution is nine per cent from urban and the rest from agriculture for dissolved inorganic nitrogen. For sediment, one per cent comes from urban and the rest comes from agriculture. You could summarise to say that 90 per cent of the water quality signature has been linked back to agricultural impacts on water quality in the inshore Great Barrier Reef.

Ms Nichols: That shows the extent of the size of the catchment and how much is under agriculture. It is a cumulative impact issue. Each business may not be a large contributor on its own, but cumulatively it is, whereas the urban areas in the reef catchments are very tiny by comparison.

CHAIR: Can we just get the title of the report that you quoted, Ms Henry, please?

Ms Henry: The *2017 Scientific Consensus Statement*.

Ms Nichols: We can send you a link to that as well.

CHAIR: We are almost out of time. I have been to the AIMS institute in Townsville. It is pretty impressive, that big core unit. It shows when the Burdekin is in flood—the impact of the sediment and all the rest of it. It is impressive. We also know just how important farming is to our state. I commend those farmers who have taken up the practices of the amendments under the regulation. It sounds like there is an improvement there. It is both industries working together, by the sounds of it, and we are making progress, if I can summarise it like that.

Mr ANDREW: With the 200 tonnes of harvest commercially that happens to the inshore reefs within Queensland, how does that work in with the peer review of the damage of run-off concerning the inshore reefs? How do you correlate that 200 tonnes of harvest commercially every year with the actual damage of what has been recorded with the run-off?

Ms Nichols: Do you mean fisheries?

Mr ANDREW: There is a commercial 200 tonnes of harvest of corals and all those are found around the inshore three per cent of reef and out around that area. I am wondering if that has an impact and how that is looked at, and if that is taken into consideration—the run-off figures themselves and the damage—

Ms Nichols: I suggest you direct that question to Dr David Wachenfeld from the Great Barrier Reef Marine Park Authority, because they permit that activity.

CHAIR: Thank you very much to the department for coming forward and briefing us. We really appreciate your time.

WACHENFELD, Dr David, Chief Scientist, Great Barrier Reef Marine Park Authority (via videoconference)

CHAIR: Thank you for joining us today, Dr Wachenfeld. I invite you to make a brief opening statement before we move to questions.

Dr Wachenfeld: Thank you, Chair. I would like to begin by acknowledging the traditional owners of the land and sea country throughout the Great Barrier Reef Marine Park and World Heritage area and pay my respects to their eldest past, present and emerging.

The Great Barrier Reef is a vast and spectacular ecosystem and one of the most complex natural systems on earth. The reef's natural beauty and resilience endure, but they are showing signs of deterioration. Climate change is escalating and is the most significant threat to the region's long-term outlook. The strongest and fastest possible global action to address climate change is critical in slowing the deterioration of the reef's ecosystem and heritage values and supporting reef recovery. Such action is foundational to the success of local management actions in the reef and its catchment.

Poor water quality continues to affect many inshore areas of the reef. The rate of reduction of pollutant loads has been slow, reflecting modest improvements in agricultural land management practices. Future initiatives need to deliver timely best practice agricultural land management over a wide area to improve water quality.

The inshore habitats that the reef supports are some of its most important values. More than three-quarters of the reef's seagrass habitat are in inshore areas. These habitats are critical for our fisheries as well as dugong and green turtle, both of which are of great cultural importance to the reef's traditional owners. Our inshore coral reefs, while not vast in area, are critical cultural, social and economic assets supporting our Queensland lifestyle and tourism industry.

Critical to the success of our endeavours to protect the reef is the strong partnership between the Australian and Queensland governments, embodied in the Reef 2050 Long-Term Sustainability Plan and our joint field management of the Great Barrier Reef Marine Park. The scientific evidence is clear: initiatives to halt and reverse the effects of climate change at a global level and effectively improve water quality at a regional scale are the most urgent to improve the region's long-term outlook.

CHAIR: I was going to comment on the Australian and Queensland joint initiatives, but I think you have articulated that well. We both need to do this together, by the sounds of it, for the benefit of the reef. The member for Mirani had a question. I do not know if you caught it at the end of the last session.

Mr ANDREW: Thank you very much for appearing today, Doctor. I asked a question about the impact of the 200 tonnes a year of commercially harvested coral within the inner reef and if that has been taken into consideration when looking at the big picture concerning reef run-off and water quality and the decline in different types of corals that have been targeted during that harvesting. A lot of people have told me they have gone to certain places and those corals have disappeared because they have been harvested—nothing to do with the water quality. Can you explain to me if, when you peer-review when you do your papers, that is taken into consideration as part of the decline?

Dr Wachenfeld: I think the first thing to say is that the coral fishery is very tightly regulated through management by the Queensland Department of Agriculture and Fisheries, but that fishery also operates under permits from the Great Barrier Reef Marine Park Authority. There is quite a lot of scrutiny of that fishery, both on an ongoing basis and as part of the Queensland government's Sustainable Fisheries Strategy, which it is in the process of implementing.

I am not sure that the whole 200 tonnes comes from inshore areas. I think that is a marine-park-wide figure. The declines associated in inshore areas with water quality are not of the sorts of corals that people are mostly collecting for aquariums, bearing in mind that the coral fishery is taken very specifically for home and commercial aquaria around the world. The take of that coral is not really the same kind of coral from the same kind of place and the same kind of habitat as the sort of places where we are talking about concerns and impacts from water quality.

Mr ANDREW: The reason I say that is that that is one part of the take. There is also a commercial take for the pharmaceutical industry that targets other coral as well, and I have been trying to find the amount and the tonnage taken. Are you aware of that take? Does that have any implications with regard to your outcome?

Dr Wachenfeld: I am not aware of the take of coral for the pharmaceutical industry. There has been some research in the past looking for bioactive compounds that might be of use in human pharmaceuticals. For the most part, I was not aware that was hard corals, which are one of the primary

sources of concern from a water quality perspective. I am not aware that much of that research and development is still going on today, but I can look into that for you. I am not aware of the take of coral for pharmaceutical purposes.

Ms BUSH: You have mentioned that the Great Barrier Reef is one of the most complex natural systems on earth. I appreciate that we do not have all morning; however, I think it is important to get this on the record. If we do not have a plan for robust land management and run-off water quality, what is at stake for the reef and surrounding ecosystem?

Dr Wachenfeld: First of all, what is at stake is one of the world's greatest environmental icons. The Great Barrier Reef is recognised as one of the seven natural wonders of the world and a World Heritage area. The inshore reefs, and more generally inshore environments, are very special parts of the Great Barrier Reef. I feel that some commentators dismiss the inshore reef as really not important or valuable. I do not see any evidence for that whatsoever. In fact, it is quite the opposite. The inshore environment of the Great Barrier Reef is where most of our seagrass beds are. It is where most of our mangrove forests are. Both of those habitats are absolutely critical for the sustainability of many of our fisheries, including recreational fisheries, which are obviously such an important part of the Queensland lifestyle. It is why many people live up here.

Those habitats, particularly inshore reefs, are also a critical part of our local economy. Some of the inshore reef areas such as the Whitsunday islands, the Keppel islands, the Frankland Islands, the Low Isles—I could go on—are inshore reef systems. As I said in my opening remarks, they are not huge in area by comparison to the overall Great Barrier Reef and the coral in the marine park, but those areas are critical to tourism businesses, local economies and local communities who use them, both to generate jobs and the economy and to generate recreational values. They are also of cultural importance to traditional owners. I think the inshore environment of the Great Barrier Reef is extremely important, not only from a straight environmental perspective but also very much from a human, social, economic and cultural perspective. These are incredibly valuable areas for us.

Mr DAMETTO: Thank you for coming along this morning and giving evidence. I would like to refer to the Great Barrier Reef Marine Park Authority's Outlook Report 2019. During last year's Senate committee hearing into the regulation of farm practices and water quality outcomes in the Great Barrier Reef, your colleague Jessica Hoey admitted that two of the professors who conducted the peer review on the report had their own papers featured in the report. I believe Ms Hoey said Professor Hughes had about 22 papers featured and Professor Helene Marsh had around 27 papers in the report. Effectively, we had professors peer-reviewing each other—checking each other's work—and that information was then used in the report. Do you have any concern about the peer review happening within your industry or with the science that then goes into these reports?

CHAIR: Before you answer that question, Doctor, I will seek some advice. I think it is leading to an imputation or seeking an opinion on previous work that has been tabled. I understand where you are coming from, member for Hinchinbrook, but just allow me to get some advice.

Mr DAMETTO: Of course.

CHAIR: We will allow the question, but we are just trying to stick to the basis—it is getting a little mixed with imputation. Keep to the long title of the bill.

Dr Wachenfeld: I think it is essential to recognise that in seeking reviewers for the Outlook Report—and in most scientific processes—you are seeking people who have expertise in the subject matter at hand. It was specific to the Great Barrier Reef or more generally the scientific discipline. Particularly in a report like the Outlook Report—which has, I think, 1,400 different scientific references in it—it would be very hard to find a credible reviewer whose science was not somewhere in the Outlook Report. I think the important point is that the Outlook Report is not saying new things about that science; it is simply summarising and synthesising what that science says from the original scientific papers.

Of course, I think there were four different independent reviews—in the sense of independent from each other—for that report. Yes, in some elements there is a person who is reviewing a summary of their own research, but there are three other people reviewing that as well. The content was written by the staff at the Great Barrier Reef Marine Park Authority. I do not see any particular concern with that. I do not think it really influences or changes the direction or findings of the Outlook Report. In a sense, it is perfectly standard practice.

Mr ANDREW: Doctor, I have just one question and you are the perfect person to ask. In terms of distinguishing between natural run-off and agricultural run-off, do you have a way to split this into percentage forms so that you understand exactly where that run-off comes from or how that run-off

is distributed between the two in terms of percentages? From a rainforest, for instance, that runs up the top of Eungella Range down into the catchment at the Pioneer River and all the farms that flood along the side of it, is there a way to determine where that comes from, given it is all the same soil?

Dr Wachenfeld: I do not think it is all exactly the same soil, particularly after soil has been modified by agricultural activities. I think the key is that, both through measurements and modelling, the estimate of what pre-European settlement loads of major pollutants would have been—particularly sediments and nutrients—is that pre-European settlement we would have been looking at somewhere between a quarter to a fifth of the loads that we have now. I do not know the specifics of the tracing mechanisms, but I know that now we have even better ways of tracing exactly where in the broader catchment pollutants have come from, which in turn helps us to target where in catchments the hotspots are.

I think it is very important to remember that pollutants that come from the catchment to the Great Barrier Reef do not come equally from all parts of the catchment. There are hotspots associated with particular types of agriculture, particular soil types and land types. It is really important to track that so we understand where the priority areas are for investment. We do not want to be trying to reduce every pollutant from every place as if they are all coming equally from everywhere.

CHAIR: Dr Wachenfeld, we have just had the state department in. This morning the Minister for the Environment and the Premier made an announcement about a further $270 million being invested into water quality and reef protection over the next five years. Looking at the Australian government percentages, how much money has been spent by the federal government to reduce land based run-off over the past 20 years? Do you have an idea of the investment?

Dr Wachenfeld: I am afraid, Chair, I do not have that exact figure, but I can take that on notice and get it for you from colleagues in the Department of Agriculture, Water and the Environment. At the moment under the Reef 2050 Plan over a 10-year period the Australian government is investing about $1.9 billion. That is not just water quality; that includes marine park management and other federally funded actions. At the moment under the Reef Trust Partnership, which is being funded through the Great Barrier Reef Foundation, there is $201 million over, I think, four or five years specifically for water quality. However, the specific question about the last 10 years I might take on notice.

CHAIR: Thank you. We will get you to provide that advice. My follow-up question is in relation to herbicides and pesticides. Coming from the northern region around the Herbert area, what can you tell us in a practical sense about farming practices that have caused concern in the inland areas of the reef? What has changed?

Dr Wachenfeld: Is your question specifically about pesticides?

CHAIR: Yes.

Dr Wachenfeld: I think it is really important for people to realise that a lot of progress has been made with pesticides. The reef catchment is divided into six natural resource management areas. Five of those are getting pretty close to the pesticide target already, so they are scoring a B, which is good, in the Paddock to Reef report card. Only one of them, which is the Mackay-Whitsunday area, is less than a B. I cannot quite remember, but I think it might be a D, which is poor. In most of the catchment for most of the reef we are very close to achieving the pesticide target, so that is great news.

We know from the monitoring that we do not expect to find pesticides particularly far away from river mouths in the inshore Great Barrier Reef environment. The places where pesticides are certainly found more regularly are outside of my jurisdiction, in the estuaries, freshwater areas and wetlands. Of course, those have their own consequences, which I will not speak to, in those habitats. What is critical is that we know that the environments of the Great Barrier Reef and our estuarine, freshwater and wetland environments are critically interconnected.

Anyone who has been out fishing on the reef has probably caught a mangrove jack in their life. The adult mangrove jack, as tasty as they are, live out on the reef as adults. The juveniles live up to 150 kilometres upstream, in freshwater wetlands. If you go snorkelling in rainforest creeks you may well see a cute little stripy fish. That is a juvenile mangrove jack. Those are the same fish as the adults that we catch way out on the reef. Although humans draw lines on maps and say, 'This is the marine park and this is not the marine park,' of course the plants and animals do not know about the lines on the maps. Their life histories cross those boundaries. Being careful about the coastal ecosystems that are connected with the health of the Great Barrier Reef is also very important.

Ms PEASE: Thank you for the work that you are doing in protecting one of the most significant areas in Queensland. I would like to get some advice from you about the World Heritage Committee. How much importance did they place on our government's contribution and commitment to the water quality regulation and land clearing when declaring the reef not in danger in 2015-16?

Dr Wachenfeld: I guess those processes began in about 2012 with a reactive monitoring mission that UNESCO sent over here. In those days we were already looking at the water quality issues and how we could resolve those. In 2015 we released the first iteration of the Reef 2050 Long-Term Sustainability Plan, the Reef 2050 Plan. That plan is obviously about much more than just water quality and includes both the Queensland and the Australian governments' investment in working in catchments with farmers to improve water quality. The Reef 2050 Plan was very well received by UNESCO and its technical advisers as being a very comprehensive plan and representing substantial investment in the Great Barrier Reef World Heritage area. Certainly the improvements over time in work to do with water quality and government investment with improving water quality I think have been an important part of UNESCO's considerations around the Great Barrier Reef World Heritage area.

Mr MOLHOEK: I want to ask some questions again on water quality. You mentioned there have been a lot of government programs probably over the past 10 to 20 years to deal with run-off to some degree. I know that in the Burdekin there have been massive fencing programs involving waterways and creeks on cattle properties. Are we seeing an improvement in water quality as a result of all of that investment and the programs that have been run? How do we know whether or not it has improved?

Dr Wachenfeld: I think the witnesses from the Department of Environment and Science covered that pretty well. Certainly there are improvements in many of the specific pollutants. The way we talk about these things is as reductions in pollutant loads—for example, that most recent reduction in dissolved inorganic nitrogen to the reef which was very strong in the last reporting period. I think the answer is certainly that, through actions around fencing and, more generally, gully erosion improvement, we have demonstrated that we can certainly make a big difference at small scales. We know how those problems can be reduced. I do not know off the top of my head exactly what the improvements have been in the scores in the Paddock to Reef report cards for fine sediment, particularly for the Burdekin. You asked earlier about the link for the Paddock to Reef. One of the great things about that is that you can drill in at different times in different locations and about different pollutants, so that would be easy to get from that website.

Mr MOLHOEK: Our time with the department is over, but we are getting those reports. I am trying to understand whether all of this investment is actually making a difference. It sounds to me that there is no clear report card on that at this point. We heard statements earlier that about 90 per cent of water quality issues continue to be linked to grazing and agriculture. If the federal government is going to be investing several billion dollars and the state is going to commit to more money, I would like to see evidence that it is actually making a difference.

Dr Wachenfeld: I think it is definitely making a difference. First of all, as Ms Nichols reported, there are increasing rates of uptake of best management practice by farmers, and that is definitely the first step in the process. As those practices take hold, that leads to reductions in pollutants. Certainly we have seen reductions in pollutants from agricultural land to the Great Barrier Reef. They are not consistent across all pollutants across all catchments, so unfortunately it is a somewhat complicated story. For example, as I said, pesticides are nearing their targets in most catchments and they have met them up in the Cape York NRM region already. Some pollutants in some catchments have made great progress and are on track to targets and others have made much less progress. It is a complicated story.

There is no question that the investment is making a difference, but we have not made as much difference as we need to. I think it is worth remembering that over the 150 years of developing our catchment, particularly increasing agricultural land, we did not understand the consequences that we were creating for the Great Barrier Reef in terms of downstream pollution. That is an understanding that we have developed over the past 20 or 30 years. That is why that is the time period we are trying to turn around. This is a problem that took 150 years to create. It will take a long-term dedicated effort to turn that around, but absolutely I think the investments that have already been made have been delivering good results. We just need to increase our efforts to get to the targets that we have set.

CHAIR: Thank you. Well responded.

Mr DAMETTO: Dr Wachenfeld, I refer to the Australian and Queensland governments' joint Reef 2050 Water Quality Improvement Plan and the 2017-2022 nutrient sediment reduction targets, being a 60 per cent reduction in dissolved inorganic nitrogen loads and also a 25 per cent reduction

in end-of-catchment sediment loads. If we actually reach those targets set out by the plan, what do you see as a percentage drop of nutrient and also sediment on the middle and outer reefs? How do you intend to measure that?

Dr Wachenfeld: First of all, we would not expect that to have a big influence on the middle and outer reefs. This conversation has very much been about inshore reefs. The ways we measure water quality that will respond to reductions in both sediment loads and nutrient loads are primarily about the amount of chlorophyll in the water, which is just a fancy way of saying the plant fraction of the plankton. Being plants, that fraction responds quite well to being fertilised. The other is measures of the visibility of the water—in other words, how turbid or how clear it is.

One of the things we have to bear in mind, as I said, is that this is a problem that took us 150 years to create and it will take a while to fix. It will also take a while for the ecological and biological processes out on the Great Barrier Reef to process through some of the sediments and nutrients that are already out there. In other words, you do not immediately see a water quality or an ecosystem health improvement on the reef the week after you implement a new management practice on the land. These are processes that take time to play through. Again, I think absolutely we will see improvements but they will take time. This is a strategic endeavour that needs a strategic focus, which is exactly why the Reef 2050 Plan and the Water Quality Improvement Plan have a time line out to 2050. These are long-term strategic things that we need to focus on.

CHAIR: Thank you, Dr Wachenfeld. I have seen part of a parliamentary report from 2016. The Great Barrier Reef Water Science Taskforce recommended that the Queensland government strengthen regulations as an important part of the mix of tools necessary to drive and improve water quality to meet those water quality targets for a healthy Great Barrier Reef. It is very clear that the Australian government is invested in this just as much as the Queensland government. We thank you very much for your time today.

Dr Wachenfeld: My pleasure. Thank you very much for your time.

LECK, Mr Richard, Head of Oceans, WWF-Australia

WEBSTER, Ms Jaimi, Great Barrier Reef Water Quality Manager, Australian Marine Conservation Society

CHAIR: Would you like to make an opening statement? Then we will move to questions.

Mr Leck: Thank you, Chair and members of the committee, for this opportunity to present. I will give a quick introduction to WWF and AMCS. Between our organisations we have over 90 years involvement in improving the protection and management of the Great Barrier Reef. We represent our supporters, of which we have around 750,000, and we work on key conservation issues facing the nation. We are on-the-ground conservationists working with supporters, scientists, farmers, landholders and industry groups to give the Great Barrier Reef a fighting chance for future generations to enjoy.

With regard to this inquiry, the overwhelming scientific consensus, as we have heard today, on the detrimental impacts of poor water quality on the Great Barrier Reef is settled. This fact is reflected in numerous plans to protect the reef, most of which have bipartisan political support.

We have been actively involved in the development and implementation of key Australian and Queensland government reef focused policy management programs for many years. These include the Reef 2050 Long-Term Sustainability Plan, the Reef 2050 Water Quality Improvement Plan, various Great Barrier Reef Marine Park initiatives including the 2017 Reef Blueprint for Resilience, as well as major Great Barrier Reef focused science programs. We also actively support successful agricultural practice change programs in Great Barrier Reef catchments, which include Project Catalyst for sugar cane and Project Pioneer for grazing. The 2017 Scientific Consensus Statement on land use impacts on the Great Barrier Reef water quality and ecosystem condition provides the most comprehensive, consolidated analysis and synthesis of the evidence linking impacts of water quality run-off from both agricultural and urban-industrial land uses.

WWF and AMCS consider there is ample evidence based on good, quality assured, regularly reviewed and updated science to show that there is urgent need to minimise the impacts of land sourced pollution and that agricultural industries in the Great Barrier Reef catchments all need to be part of that solution. I think you quoted from this report before, Chair, but the Great Barrier Reef Water Science Taskforce states clearly the need for regulation 'to be an important part of the mix of policy instruments to accelerate progress towards meeting the reef water quality targets'. Across many sectors in society, there is a consistent pattern that voluntary practices, either by individuals or industry, need to be underpinned by adequate regulation to bring about change in behaviour or improved management outcomes.

It is clear now that the 2025 water quality targets will not be met by relying solely on voluntary adoption of best management practice. The 2019 Great Barrier Reef report card, which has been referred to previously, shows that, after more than a decade of investment, 36.2 per cent of grazing land and 12.7 per cent of sugar cane is using best practice management systems. Both of these have targets of 90 per cent to be achieved by 2025. It is clear from this rate of adoption that there are graziers and canegrowers who have made a business decision not to participate in government and industry programs to support adoption of best practice. Whilst many farmers are participating and making a fantastic difference, others are not. Those not participating are essentially free riding, and that is undermining the efforts of those leading growers and farmers.

That is the primary reason that WWF-Australia and AMCS have so strongly supported effective regulations as the key missing piece in government policy—to help get practice change on track to achieve the water quality targets. Effective regulations, along with longstanding government and industry investment supporting adoption of those best management practices, provide the right policy and investment mix to achieve the 2025 water quality targets.

In conclusion, we urge the committee to refuse this reversal bill to help safeguard the future of our reef and to recommend improvements to ensure the achievement of the 2025 targets.

CHAIR: Thank you very much, Richard. Jaimi, would you like to make any comments before we go to questions?

Ms Webster: I am happy to go straight to questions.

CHAIR: Where else in the world have water quality targets of this magnitude, such as those required to protect the Great Barrier Reef and everything else that is attached to it, been achieved through a voluntary action?

Mr Leck: In my experience—WWF is a global organisation—you would need all elements. As I said in the opening statement, we work with some of the leading growers and farmers in their space. In that bell curve they were trialling 10 or 15 years ago green cane trash blanketing, which is now standard practice. It makes good business sense. You see those farmers who will be early adopters and do good things, but you will always have laggards. You will not move the entire industry unless you have the regulatory piece to set those minimum standards, which is why this current legislation is so important.

CHAIR: Do you have any further comment, Jaimi?

Ms Webster: No. I have no further comment to that. We are very much an Australian based organisation. I have had history personally working in the Murray-Darling Basin for about 10 years prior to coming up here. It is very similar. You need strong regulations to pull everybody up to a level playing field. You will always have early adopters. You will have people trying new initiatives and always being innovative in these fields, not only to save money but also to safeguard their environment for their future generations. A lot of people who work in farming and agriculture want the next generation to take over the properties and look after them so they have decades more farming left. There will always be early adopters and there will always be people you need to bring up the line.

Ms PEASE: Richard and Jaimi, thank you for the great work that you do. Following on from the chair's question, do you know of anywhere else in the world where there are targets and controls over run-off?

Mr Leck: Yes, certainly. The situation on the Great Barrier Reef is not unique. The model of providing targets and incentive for practice change across all industries, not just farming, is something that you see throughout the world. I work with colleagues in Europe focusing on various water bodies over there as well. The approach we are taking here in Australia with the reef is quite typical. The scale of the problem here and the scale of investment is very non-typical. We are really fortunate here in Queensland that in some ways the Great Barrier Reef is probably one of the best studied and researched ecosystems on the planet. When we work in Asia-Pacific, which we do, we are often working in an environment that is incredibly data poor. You are also working with communities that have very little capacity to effect change. We are fortunate. We do not have that situation. We know exactly what is going on and we have the resources to change practices, implement regulations, provide incentives and have good policy. While the situation that we have here on the Great Barrier Reef is sadly replicated around the world, we are probably the best placed country and the best placed state to do something meaningful about it.

Mr MOLHOEK: I want to pick up on your earlier comment that we are best placed. We are a small country with great resources. I think it is fair to say that we are truly the lucky country. The question was around targets and practices in other countries and you said, 'Yes, there certainly are.' What sort of target do other countries have in this space? How rigorous are their controls? How do their controls compare to our current legislation here in Australia, in Queensland?

Mr Leck: It is a difficult question to answer. In the abstract, in general terms—I am trying to think—

Mr MOLHOEK: I am not—

CHAIR: Does anyone else have a Great Barrier Reef?

Mr MOLHOEK: They all have marine environments and ecosystems that are vital. I felt that your answer was a bit abstract. I was wanting to hear some specifics or comparisons. From what I understand, we have specific targets. We have set up an authority. I would love to know what other targets exist around the world and how they compare to ours.

Mr Leck: I can speak about two initiatives that I have had some involvement in. One is called the Coral Triangle Initiative, which was a six-country initiative between three Asian countries and three Melanesian countries. The Australian government played a key role back in around 2007. That had regional and national plans for dealing with a whole range of impacts on those reefs including fisheries, climate change and land based sources of pollution and other issues.

We are very fortunate compared to, say, the Caribbean reefs. We have not had those same levels of impact, particularly around fisheries, that the Caribbean reefs have had. They have really stringent legislation and restrictions in place there to try to get those reefs back. As the chair said, I am happy to take that question on notice and provide more information on some of those initiatives.

Mr MOLHOEK: I would be interested to see some comparative data. I am trying to understand what the gold standard is. Jaimi, my understanding of this proposed legislation is that it is not seeking to remove restrictions altogether or to wind the clock back significantly; it just raises concerns that

perhaps some of the requirements of the legislation are a little bit tough or that there is a regulatory burden being placed on the sector that is perhaps a little bit onerous. Has the pendulum swung too far? Is there a middle ground? Do you think we need to maintain the status quo?

Ms Webster: That is a good question. In short, I think we need to maintain the status quo. As we talked about earlier before we came on board, there is progress being made. It will likely be reflected in the next report card since the regulations came in in 2019. That last report card we had reflects the changes or the improvements we saw for best management practices. We are really looking forward to this next report card, which is going to show the increase we have made since the regulations came into play.

I have certainly spent a bit of time out in the field talking to landowners. They have made the changes. Changes are hard for any business, any industry. You are learning new things and you are changing the way you do things. There is always going to be an immediate impact on your time or resources. That very quickly becomes business as usual. What we are asking here is to bring everybody up to a minimum practice standard. It is then up to them to go beyond that. There are initiatives available for landholders who want to do more and really raise the bar. They can actually diversify their income from doing it. No, the pendulum has not swung too far. We are asking for a minimum practice standard, and that is across the board.

Mr MOLHOEK: Is there any room at all to remove some of the administrative burden on primary producers? One of the complaints is that a lot of additional red tape is required. Could they not achieve the same outcome with perhaps less paperwork?

CHAIR: I think we are starting to seek an opinion.

Mr MOLHOEK: I am seeking an opinion from—

CHAIR: We are not going to ask people's opinions on the legislation.

Mr MOLHOEK: Let us call it advice.

CHAIR: How about you rephrase the question? You are trying to get some kind of answer. I do not even know where you are going with that one.

Mr MOLHOEK: I am happy to leave it for now.

CHAIR: There are other questions.

Dr ROBINSON: You should have vetted the questions, Aaron. You can ask the questions for us.

CHAIR: I will rule the committee, thanks, member for Oodgeroo. Would you like to ask a question? No?

Dr ROBINSON: I am happy to defer to my colleagues to my left.

Mr DAMETTO: Ms Webster, I would like to clarify a statement made by your colleague Imogen Zethoven. Are you aware of her?

Ms Webster: Yes. Imogen left before AMCS before I joined, but I am aware of her.

Mr DAMETTO: It was a statement made last year during the Senate committee hearing into the regulation of farming practices, water quality outcomes and the Great Barrier Reef. Imogen said that the society has been involved in developing the Reef 2050 Plan and the water quality improvement plan for the new reef water quality regulations. She also said during the hearing that the Great Barrier Reef 'is an intangible element that does not lend itself well to scientific measure'. Is that a statement that is supported by the society? If so, why is the society involving itself in any scientific studies and programs at all?

Mr Leck: Is it okay if I take that question, because I was part of that hearing with Imogen as well?

Mr DAMETTO: Yes, of course.

Mr Leck: From my recall, what Ms Zethoven was talking about at that point with intangibility is that—clearly, she recognises the science behind the changes to the reef that we have talked about in the opening statement. The intangibility comes from that sense of wonder, from that sense of magnificence. I am sure you have spent time out on the reef, as I have spent a huge amount of time as well. There is something intangible and inspiring about the reef that you cannot put your finger on and you cannot document in terms of financial value or scientific value. The whole point of World Heritage listing is that it lists those sites that are globally significant because of their outstanding universal value. You cannot say what it is; it is intangible. I am 99 per cent sure that is what Ms Zethoven was referring to in that hearing.

Mr DAMETTO: To that point, it is very hard to get a full grasp of what is happening out there from the statement. We are trying to measure something right now. We are trying to measure water quality. If what we are trying to do is improve water quality at the expense of our growers in the six reef catchment areas, I think we need to replicate and make sure we are checking the science. Is that something you would support?

Mr Leck: Both our organisations are science based organisations. As I said previously, the science around the Great Barrier Reef and the impacts of water quality is incredibly strong. The synthesis report that is the Outlook Report makes that really clear. For many years there has been a whole cascade of specialist reports on the impacts of poor water quality on the reef. I have been in this game for quite a long time. I remember, in 2006 I think, Peter Beattie standing up and saying, 'There is a line in the sand now. We have to move forward. The science on the reef and the impacts of poor water quality on the reef is settled.' That is 17 years ago. We have been having this conversation for a long time. My organisation is very interested in actually making change happen on the ground. What we are seeing through that regular report card process is the beginning of an uptake in that practice change work, which is really good.

In answer to the deputy chair's earlier question to the previous panel, that will take time to manifest in terms of actual significant improvements in water quality flowing into the reef. It is a very different scenario than, say, the practice of banning the dumping of dredge spoil in the reef's waters that was also of concern to the World Heritage Committee from 2012 to 2015. Once that legislation came in place, not one square metre of dredge spoil was dumped in the reef's waters. It was an instant result. This type of result will take a decade or more to achieve.

Mr DAMETTO: Thank you. My question, though, was: does WWF support replicating and checking the science?

Mr Leck: Sure. That is what a peer review process is—absolutely.

Mr ANDREW: On your website you have about 200 farms, whether it is cattle or cane, that you work with. What reef produce accreditation programs are you involved in with those farms?

Mr Leck: With cane we work with Project Catalyst, a program of which the significant supporter is Coca-Cola. They are looking to purchase their product from farmers who have best management practices, for example, better sugar initiatives. As I understand it, they look for their suppliers to obviously be in line with minimum standards, in line with the regulations. Similarly, we work with Project Pioneer for cattle farmers.

Mr ANDREW: Do you help contract with the state and federal governments to ensure that implementation of regulations is actually acted on?

Mr Leck: We have no enforcement of regulation capacity. That is not our role.

Mr ANDREW: No problems. I just thought you would because of the accreditation side of it.

Ms BUSH: I was interested to hear about the work you were doing with graziers and in the agricultural industry. I appreciate that AgForce will be appearing before the committee. What benefits are early adopters and those who are changing their practices realising? I am interested in economic benefits but also ecologically for themselves. What are some of the benefits that those early adopters are realising?

Ms Webster: In the last couple of months since I have come on board I have spent a bit of time up in Cairns and out on some cane fields looking at some of the initiatives, going through obviously the reef regulations and then, above the reef regulations, some of the initiatives that farmers have taken up in line with some of the Reef Trust grant money and the works they are doing to further reduce nitrogen application beyond the reef regulations. From the experience I have had, in the beginning it is a lot of trials. They are trialling lots of new things. Every paddock and every farm is different. These are not blanket things that you can apply across all farms, but they have made some changes.

I have seen a group of cane farmers up in the Mulgrave catchment who have been composting. Using fallow crops to compost and using the compost in the soil, they have reduced their fertiliser use by 40 per cent. They are seeing the savings of the fertiliser, but obviously there is the cost of the compost. Economically, it is probably on par, but there are water quality improvements to their area. They have creeks and rivers on their property that they have also revegetated. All five of them like to fish—they could not stop talking about how much they love to fish—and they have seen improvements to fish stock up in the creeks around their property. They have also seen cooling of the water around their land. There are social benefits and there are economic benefits, but I think we still need investment in this space. We still need more trials for these initiatives above the reef regulations.

The other thing I will touch on briefly is innovation in the fertiliser itself. We are seeing new fertilisers being created with reduced nitrogen and better uptake by the plants. This science also has to evolve as the industry evolves. It would be good to get to a point where more innovative fertilisers reduce the amount of fertiliser being applied to farms and therefore reduce the cost.

Mr Leck: It is a great question. Project Catalyst is about 10 years old now. The idea behind that was that for a lot of reef communities, and particularly the reef farming communities, sticking your head above the parapet and saying, 'We have to change,' is just not going to happen. A conservation group like mine sticking its head up and saying, 'You guys have to change,' tends to not go particularly well, either. It is about creating these small groups which are grower led or farmer led and trialling new practices. Farmers will only adopt them if they actually have a cost saving to them. If you are doing precision agriculture where you are delivering fertiliser right to the roots of the sugarcane plant and you are delivering water right to the roots instead of spraying it on, you will have the same or better productivity outcome and your input costs will go down. Now you see through the Reef Trust Partnership and other investment from government things like the MIPs, the integrated projects, that take that same sort of approach, which is a little bit less government or interventionist led and more grower led, creating these communities of growers. It sounds terrible, but it is like a safe space, I guess, where they can share ideas and share innovation. That is what we were talking about earlier with that sort of leading edge. That is how change really happens. It is great to see that there is a significant portion of farmers doing that now.

Ms BUSH: You also mentioned that there are some growers and farmers who perhaps are not moving towards that change. Are you able to advise on the barriers to them in doing that?

Mr Leck: If we look at the data in terms of rates of adoption, as I said in the opening statement, clearly there is a quite significant proportion—it seems to be around 30 per cent to 40 per cent—that are not changing. There may be a range of reasons: cultural reasons, a multigenerational thing, they do not believe science or whatever. It is impossible for me to speculate why, but that is the argument. The deputy chair raised the point before that this is not a new space. Governments have been investing into this space for decades. As a taxpayer, I want to make sure that investment is paying off. If people are not adhering to the regulations and if they are not actually producing their crop in a way that is responsible, there should be regulation.

Mr ANDREW: How much does it cost to be accredited by you? You partner up with some of the big companies and chain stores around the place. Are people outside of the 200 farms you have accredited treated fairly by the people you are partnered with in terms of providing produce?

Mr Leck: We do not accredit any product or farmers. We work with Fisheries and there is an MSC approach. We work with Forestry and there is a Forest Stewardship Council approach. There are sugar and cotton accreditation processes. It is not a WWF decision to accredit any producer; we help facilitate that process. We have a partnership with Woolworths, for example. Woolworths will seek advice around its supply chain and we will point to accreditation processes and things like that that have much more sustainable and ethical practices. That is how it works. We do not actually accredit anyone.

Mr DAMETTO: The state government has put up its hand and said that it will not be making any more changes to this for five years. Right now we have farmers and growers out there who say they will struggle with the current regulation if it comes in. If we get to the five-year mark and we have seen no further improvement to inshore reef water quality, would WWF or the conservation society support further or more stringent regulations on the sugarcane industry?

Ms Webster: It is a good question. It is a question of compliance, I guess, with the reef protection regulations. I think they have been very fairly rolled out since 2019. They have been rolled out over three years, targeting the highest risk practices first. This is giving people time to get along to the Queensland government information sessions or to jump on Zoom and hear about what they have to do. I am speculating, but some of the immediate pushback comes from just a lack of understanding of what changes are required to be made. AMCS definitely appreciates the way the regulations and the information sessions have been rolled out. I think it is a question of compliance.

Mr Leck: It is great news today that the reef budget is reconfirmed. I think there is a significant role for the Queensland government to support extension to farmers. Clearly, you are reflecting some concern from farmers—and we have heard that—so there is a strong role for extension and compliance over the life of the regulations in that period. That is what we would look to see from the Queensland government, to make sure that farmers understand the regulations and understand how their peers are making good money, reducing their input costs and protecting the reef at the same time so that those lessons are shared.

CHAIR: Thank you both for being here today.

Proceedings suspended from 12.15 pm to 1.01 pm.

CHAIR: Welcome back to this public hearing of the Health and Environment Committee. The purpose of today's hearing is to assist the committee with its inquiry into the Environmental and Other Legislation (Reversal of Great Barrier Reef Protection Measures) Amendment Bill 2021. I now welcome the next witness, Nick Dametto MP, the member for Hinchinbrook and private member who introduced the bill before us today.

DAMETTO, Mr Nick, Member for Hinchinbrook, Parliament of Queensland

CHAIR: Would you like to make an opening statement before questions?

Mr Dametto: Firstly, I am very proud to introduce the KAP's Environmental and Other Legislation (Reversal of Great Barrier Reef Protection Measures) Amendment Bill 2021. Mr Chair and members of the committee, I have come here today to give my evidence and clarify why we have introduced this legislation into the House. I grew up on a sugarcane farm. I have an interesting background: when I was growing up my father was a tourism operator who had the Orpheus Island dive boat as well as the game boat that worked that area. Later in life, after working on my father's banana farm in Cardwell, I also indulged in my own tourism business for two years running Townsville WaterSports. It was a tourism business that worked the inner reefs around Magnetic Island.

Agriculture remains the backbone of North Queensland and Central Queensland. Each year the sugar industry alone contributes $1.1 billion to our state's economy and 44,000 direct and indirect jobs. Not one person who will speak to this bill today wants to destroy the reef. In fact, the agricultural organisations that will appear before the committee represent the reef's greatest protectors: growers, farmers and people who own the land. They know what to do; they know how to manage their land. Farmers want to farm sustainably, just as we want them to. It is in their best interests to do so. We already did this prior to the introduction of the government's reef legislation in 2019. Moreover, the lifestyle these communities enjoy is centred on the reef, whether these farmers, growers and property owners are fishing, indulging in water sports like jetskiing or motorboating, swimming or spearfishing.

I should note that some disappointment has been expressed by not only me but also growers out there in relation to my request for the chair to allow regional hearings on this bill. Even though in 2019 the government's bill did enjoy the privilege of going out on the road, growers right now would love to come down but they are involved in sugarcane harvesting. They are also planting right now and a lot of them cannot make it all the way to Brisbane for the hearings, especially now or in September when things get busier.

Some things have changed since the government introduced its legislation in 2019. Growers were not privy to the regulations or what the regulatory impact on their interests would be until after the legislation was passed. In addition, my bill has some extra items included at the end that I think not only would improve the way growers operate their properties and growing practices but also would hold the state government and departments a little bit more to account when making ERA standards.

The bill seeks to repeal all amendments made to the Environmental Protection Act 1994 and the Chemical Usage (Agricultural and Veterinary) Control Act 1988 by the state government in 2019. The bill seeks to add extra safeguards for growers by establishing an independent regulator with an extensive agricultural and scientific background who will advise the minister when making new environmentally relevant activity standards and who will oversee the administration of offences when a person commits an offence with respect to fertiliser application.

The bill seeks to introduce an enforceable undertaking so there is no financial penalty for a person committing a first offence. The bill will involve a written undertaking made by the person in relation to a contravention or alleged contravention of section 58 and transfer the power of making an ERA standard from the chief executive officer to the minister alone. This is to ensure that such decisions are made by an elected official and not by an unelected member of the Public Service. The minister will, however, be required—if my bill is passed—to consult with the independent regulator and representatives from two or more industry bodies the ERA standard will affect before making the new ERA standard.

Fundamentally, agriculture and the reef should not be treated mutually exclusively. That is why there needs to be a better balance. Both can continue to thrive for generations to come without causing such economic destruction to the agriculture industry. We have seen the beginning of the rollout of the government's legislation, which the government sees as a silver bullet solution to improve the health of the reef, but I think there is too much focus on water quality. Studies have demonstrated that many sources of nitrogen are involved in the environment and not all of them come from agricultural processes.

Consultation on this bill has included growers and tourism operators but also scientists in the field who have actually asked questions about the science. I must note that Professor Peter Ridd and I met for the first time nearly four years ago. Professor Ridd said to me in a cafe, 'Nick, I got into reef science in the first place because I wanted to protect the reef. I wanted to do better. I wanted to make sure the science was doing better.' As he delved further into the science he said to me, 'What would you say if there were five things they were saying that are hurting the reef right now?' I said, 'Well, we need to address all of those.' He said, 'What would you say'—and I am paraphrasing here—'if I could say two of those things are not hurting the reef right now? That's what we should be considering putting more of our efforts and time into.'

Things like climate change and the adverse effects of climate change—Cyclone Yasi, for example—did a lot of damage to the reef 10 years ago, which sort of coincides with when we started really measuring reef health. In 2009 the first reef water quality report card came out. If you talk to anyone out there who uses the reef for either tourism based business or recreational purposes, they will say that is what decimated the reef 10 years ago and what we are seeing right now is a real return of those coral species out there.

I will pull up my opening statement because it is starting to get a little longwinded, but I can talk ad nauseam about this subject during questions. I invite the committee to ask any questions on the bill.

CHAIR: I might start by addressing the point you made around consultation. You were here this morning and you heard previous witnesses and the department. I have just counted some 22 pages of names over the three years of consultation prior to the bill and the report that I referred to this morning by the former committee. There was extensive consultation throughout that process. I want to address that point. You made the point that the committee made a decision to have this hearing here today. Can I just start with your explanatory notes? The explanatory notes state—

> The policy objective … is to repeal all amendments made to the Environmental Protection Act 1994 and Chemical Usage (Agriculture and Veterinary) Control Act 1988 by the State Government in their Environmental Protection (Great Barrier Reef Protection Measures) and Other Legislation Amendment Act 2019.

What are those amendments and why are you asking to repeal them?

Mr Dametto: When talking to growers and grower groups, the unanimous feedback we got from those people who will have to run their businesses off the back of this current legislation is that they were not happy with the previous regulation—the legislation they were working under—but at least they could work with it. They were still able to afford to undertake their farming practices to a point where it was still profitable. I have to draw your attention to some of our more broadacre growers—the big guys out there—who are just surviving while they are trying to implement some of this BMP stuff. It is expensive for even the bigger growers.

It might be great to have different input costs and prove that, yes, you can yield a certain amount from a certain amount of nutrients, but the fact is that we have another contributing factor here when it comes to sustainability and the sugar industry: the world sugar price. What might be very sustainable this year off the current world sugar price may not be in five years time. We are also constantly dealing with extra regulatory burdens and the cost of implementation while reducing nitrogen and phosphorous applications.

I heard the Department of Environment and Science state that yields have been good in the Burdekin. The Pioneer Cane Growers Organisation supplied me with data which shows that since 2016 the district is down a million tonnes, so the yields are down using less phosphorous and nitrogen. It is just a known fact.

CHAIR: Since when?

Mr Dametto: Since 2016.

CHAIR: Would the events of 2019 have played into that in terms of the monsoonal floods?

Mr Dametto: In average, not likely. Although most of the Burdekin would have suffered some cane loss, it did not have the same effect as it would have in, say, 2019 for Townsville residents. Ingham and the Burdekin were not affected as badly with flooding as Townsville.

CHAIR: Do you have any data to substantiate that?

Mr Dametto: Not on me today, but I can supply that data from the information that was supplied to me that showed the yields were down.

CHAIR: The data I saw was that most of the Burdekin was underwater.

Mr Dametto: Of course.

CHAIR: You were asking for all of the amendments to be repealed and I asked, 'What are those amendments?' Can you speak to any of those amendments of the Environmental Protection Act 1994? What are they? Can you list some of those?

Mr Dametto: Yes, certainly. One of the things that people are calling for the reversal of is oversight. They do not want the onerous ERA standards. They also say that they should not have to go through the process of getting a new cropping standard for new agricultural land. Another thing that is not being supported by the industry is the ability to go in and check on our own growers and talk to third parties about what they are doing on their property. It is about working with industry—holding each other's hand while walking down the street, not walking behind them with a stick.

CHAIR: To clarify, the first thing you said was oversight and that it was onerous, but you want to introduce another level of oversight in your bill, by the sounds of it, which is an independent reviewer of the implementation of any aspects of the act?

Mr Dametto: That is correct, and that oversight is to make sure the state government is doing the right thing when introducing new regulations or ERA standards so that is in line with the science. Also, our bill proposes that the independent regulator would not have any ties to government funding. They would not have any ties to working for a government department in the past and also would not have ties to environmental protection groups. That person would have to stand alone. That person will be quite hard to find. In evidence earlier today, Dr David Wachenfeld said that it is very hard to find someone who is not tied to the financial side or tied to the groups that are pushing a lot of this reef science stuff at the moment. They will be difficult to find, but I think you need someone who stands independent of this.

CHAIR: We had the good doctor give evidence, as you said. You might have heard me ask about the amount of investment from the federal government. He quoted $1.8 billion in the last couple of years, but a quick Google search during the break shows that it is closer to $18 billion, so the Australian federal government considers water quality on the reef very important. This morning the Queensland government announced $270 million towards reef management. Does that not signal that this is necessary to—

Mr Dametto: What that signals to me is that both the federal government and the state government see a lot of value in making sure people who care about the reef continue to vote for them. I really think that is a big consideration here. Fortunately, there is good investment going on, but the fact is that growers out there—the people in the six reef catchment areas—are lambs to the slaughter through this. As Dr Ridd said to me in an earlier conversation, there are bigger factors affecting Great Barrier Reef health, and agricultural nutrient and pesticide run-off, especially on the middle and outer reefs, is having very little effect.

CHAIR: Just to clarify, you have just made the statement that you believe those billions of dollars from the federal and state governments is because of a voting base?

Mr Dametto: I believe it is a contributing factor—the public opinion.

Mr MOLHOEK: Thank you, member for Hinchinbrook, for being here today and for your passion and commitment to the values of your party. We may not agree on everything, but I certainly admire people who are prepared to have a go and stand up. My question is around the consultation that you have undertaken. As the chair pointed out, there was significant consultation last time around. What consultation have you undertaken since then in coming to this position today to present proposed changes to the legislation?

Mr Dametto: My consultation—and on a limited budget, being a small minor party—is talking to my local growers, talking to the people who live in my electorate, as well as growers across neighbouring electorates who have to work and deal with this legislation and these regulations moving forward. These are the people who have tapped us on the shoulder saying, 'Nick, we just cannot afford to do this,' or, 'We can do this in our own time.'

We were having some good uptake of the BMP program. People out there were changing their practices as they could afford to move forward. In consultation with some of our grower groups, unanimously they have come back to us when we have talked to them in person saying, 'We just want to go back to the 2010 legislation. That is what we can work with.'

During the 2019 debate we saw people from every group, from Canegrowers to the Green Shirts, get out there and make sure their voice was heard on behalf of growers. The unanimous theme was, 'We cannot work with this and we would like to go back to where we were. At least we could work with it.'

Mr MOLHOEK: In the discussion you have had with your stakeholders and your local growers, can you give us some examples? What are some of the regulations they are saying are of concern under the current legislation and how do they see that being different?

Mr Dametto: Most growers I talk to are trying to do better. They are really trying to do better. We have had quite a large uptake of the BMP program, the Six Easy Steps, in the Herbert district that I represent, which is great. We have growers who, as they can afford it, will take it on in their own time. What scares the absolute hell out of the growers are some of the large, onerous fines for breaches.

To give some perspective, a lot of the smaller growers, after taking out their input costs—after taking out everything—are making about $40,000 profit a year from their farming operations. Most of these people have a second job in town or work in the mines just to pay for their fertiliser. They are doing their best. These are the mum-and-dad growers out there—the smaller families that have been in the industry for three or four generations. These people are saying, 'Nick, if I was to make a mistake with my nutrient application, if I was to be slapped with an $80,000 fine for a mistake and the government department was to come down hard and hit me with the stick, not only would that ensure I lost my farm but also I would be bankrupt.' I do not have the exact figure in front of me, but there is a larger fine of $220,000 at the department's disposal. They are the kinds of fines that you would leave for a mining company or a large industrial company that can afford that sort of thing. We have people here who are turning over $40,000 a year. They just cannot afford that.

Mr MOLHOEK: You said that some of the farmers want to make the changes as they can afford it.

Mr Dametto: Yes.

Mr MOLHOEK: What are the changes they are having to make? What are the sorts of costs involved in making those changes? You talk about Six Easy Steps. Can you explain that to us a bit more?

Mr Dametto: One of the steps they are being asked to take right now is implementing run-off catchment areas and things like that. For example, a farmer might, while they are working on their draining systems around their farm, put in a large wetlands. As land becomes available, growers are spending the money on making sure they are installing the sediment traps and other such things.

One of the things they are concerned about is the viability of their farming operation if there is a reduction of nitrogen and phosphorus. Land is very complex, and that is why we have agronomists to get out there and tell you exactly what you need to put in certain areas. When you tell someone, 'This is your nutrient plan; this is all you can apply,' suddenly certain soil types perhaps become unprofitable to the point where a grower might say, 'Well, I'm not worried about doing this anymore.'

What is really concerning to not only me but also others in the industry is if people, especially in the sugar industry, start stepping back and saying, 'It's too hard. I'll go and do something else now.' That becomes a huge problem. We have seen things like this happen. In Maryborough, for example, it is just too hard to grow sugar cane; it is no longer viable. You get better returns from macadamia nuts, for example. If a grower pulls all of his sugar cane out and decides to go to macadamias—great, crop diversification sounds good—that then means there is no tonnage, not enough cane, going to the sugar mills so eventually, because of that, the sugar mill in Maryborough is closed down. That is a concern not only for the Hinchinbrook electorate but also the Burdekin and up north.

Ms KING: Member, you talk at length about your conversations with Dr Ridd.

Mr Dametto: Yes.

Ms KING: I go back to the evidence to support the original bill that you are seeking to repeal. With your indulgence, I will just briefly read from the committee report. It states—

> The 2017 Scientific Consensus Statement was prepared by a 'panel of scientists with expertise in the Reef water quality science and management' who 'have reviewed and synthesised the significant advances in scientific knowledge of water quality issues in the Reef from the 2013 Scientific Consensus Statement'.

Could you reflect for me how Dr Ridd's scientific knowledge and qualifications stack up against that Scientific Consensus Statement and the contributors to those?

Mr Dametto: It needs to be acknowledged that what Peter Ridd has done is question the science. The statements he has made—I am paraphrasing here—lead you to believe that we should be questioning some of the science out there, because members of parliament, just like yourself and myself, and legislators like us, do not have time to go out there and replicate the science. We do not have enough time to look at every single study that has been done on every single chart that has been put together or tabled. We read the glossy document. The concern about the glossy document is what the question is around.

Peter put his hand up in the first place to ensure that what we as parliamentarians—and we are very busy people—read in that glossy document adds up in the background. That is why there is a question mark over some of the science. It has been peer reviewed. Peer reviews might work for certain things, but it has been described as like two children inside a classroom getting an opportunity to mark each other's exam and then putting it forward as the truth in a document afterwards. I am not saying that people are lying, but let's make sure we have an opportunity to scrutinise some of those figures. That is why others, including Dr Ridd, have said, 'We want an auditor-general or someone to go over some of this data, just so we can make sure that two and two equals four and adds up to what is outlined in the document.' I think it is interesting and I think we should be open to scrutinising the science and that is fact.

Ms KING: Do you consider yourself personally qualified to scrutinise the science?

Mr Dametto: Absolutely not.

Ms KING: I suppose to reflect on the scientific method, the focus of the scientific method to scrutinise results, to seek replication of initial studied results, to test and test again, to have confidence in the science?

Mr Dametto: I think the word you used before was 'synthesise' the science—that was in the statement you read out.

Ms KING: Oh, yes.

Mr Dametto: Replicating the science is something very different and that is something I support. I think everyone out there should be supporting, replicating and checking the science.

Mr ANDREW: Thank you for coming in today. It is a very important subject and important to Queensland's future. It is part of the history that built Queensland. Do you know of any regulatory impact studies that have been done on the effect on farmers of the laws and regulations that have been implemented which you are trying to rescind—not just in financial terms but also in social, psychological and health costs and outcomes? Has anyone done any of that since this was introduced? Has there been anything done, do you think, or have you seen anything done since its introduction?

Mr Dametto: To my knowledge, no, and there was no regulatory impact statement done by the state government, from my understanding, before this legislation.

CHAIR: Can I just clarify? I have read the report and it does talk to the department, in that three years of consultation prior to the bill, undertaking a regulatory impact statement. I read that on the plane this morning.

Mr Dametto: Fair enough, but it has never been quantified what the cost would be to the industry. That is not in that statement. There has been nothing to indicate what this will cost the industry. That is why I thought it would be a perfect opportunity for the committee to get back out on the road and have a chat to some of these growers who will be impacted. What we have to realise is that whatever affects the grower also affects the hairdresser in town—

Mr ANDREW: Oh, absolutely.

Mr Dametto:—and also affects the school in town and having enough students to go to it. These small towns ride on the back of the sugar industry. Going down the line, if you do not have growers out there and you do not have people supplying cane to these sugar mills, you have a real problem as to the viability of the sugar mills. During the season there are 600 to 800 employees who are working around the clock, and all of those wages feed back into the town. This stuff does not affect just the grower; everyone down the line is affected by a grower who can no longer be viable in his district.

Mr ANDREW: Yes, the knock-on effect. Do you think with part of this bill there should be a provision for an independent assessor to have a look at these impacts, to see what it is actually doing so we can quantify what it is costing, what it is doing, how it is knocking that multiplier factor of 5.4 to one of the growers and all the rest of it? Do you think we should be looking at part of that, too, on top of your bill?

Mr Dametto: Like I said in my opening statement, we have to figure out a way where we can coexist. The tourism operators do not have the mortgage on North Queensland; the growers do not have the mortgage on North Queensland. We have to figure out a way to balance this. Like I said, not everyone was happy with the existing legislation before this 2019 bill was passed, but at least growers were able to still be profitable and ensure they could work with the legislation. They were taking up the best management practice as they could afford it. Whenever a regulation or an ERA

standard is changed or whenever the state government decide they want to move the goalposts on this, I believe that consultation should not just be going down and talking to people and telling them what you are going to do; it should also be taking into account what it is actually going to cost our small towns and what economic impact it will have on our regions.

Mr ANDREW: I have one more quick question, and you will probably have to take this on notice. ESGs are tied to funding and how funding is actually delivered through state and federal governments. The chair has been kind enough to show us how much money has been spent on these things. Do you think some of these ESGs actually drive some of this funding and the push and the money that comes through from the federal and state governments? Do you think that might have something to do with all the cost that is being spent on this?

Mr Dametto: Whenever there is any monetary value attached to anything, people will position themselves to be as profitable as possible. In this case, if you find more problems, there may be an opportunity for more funding to continue to fix those problems. The feedback I have from a lot of people out there—and there are people who are sceptical of what is going on out there—has been that they believe that some of these decisions and documents that are being put together to demonise growers out there and anyone in the cultivation sector and the six reef catchment areas are for their own benefit and not for the benefit of the reef and water quality. That is concerning to me.

CHAIR: Before we go to another question, I want to correct the record for you on the RIS issue. Page 116 of the former committee's report talks about the regulatory impact statement and the consultation from 2017, for a number of years after that, with growers. I will summarise but it said that the decision RIS concluded that strengthened regulations are necessary to improve reef water quality to help preserve the high values held for the Great Barrier Reef and increase the resilience of the Great Barrier Reef to other pressures. Member, you did say that you were not aware of one.

Mr Dametto: Since the legislation was implemented, no. That was 2017.

CHAIR: The government had gone out and consulted, as we heard from the department, for three years prior to the bill being introduced, so a RIS was done. I am just clarifying. You said there was no RIS done.

Mr Dametto: I withdraw saying there was no RIS done, but there was nothing in the RIS about the economic effect it would have on the growers in these districts. That is important to note.

CHAIR: I wanted to get clarification.

Ms PEASE: Thank you for coming in today. A number of times in your evidence today you have raised allegations that all of this investment and this legislation we have put in is politically motivated. What scientific evidence do you have to support that?

Mr Dametto: I do not think you can quantify scientific evidence when it comes to political decisions. What I will speak to, though, because that is what you have asked, isn't it—

Ms PEASE: I want to understand these allegations you are making with regard to the motivation of the federal government and the state government in protecting one of the great wonders of the world. You are making allegations that it is a political motivation.

Mr Dametto: To clarify that, the best way to describe this is that certain groups out there, certain organisations, have spent a lot of time and a lot of money promoting that the reef is dying. I would suggest that those groups have done more damage to the tourism industry in Queensland than any farmer has ever done. Tourism operators out there will say that when people are ringing up to book accommodation or book a dive tour at Mission Beach, they are actually asking, 'Is there anything out there on the reef still? Can we go and have a look at this?' That is what they are asking. I have been out with one of these tour operators and dived on some of the most beautiful reefs you will ever see, and they will show you that the reef is alive and well; it is healthy. It has bounced back significantly since Cyclone Yasi. That was the big damage done to our reef.

As for political motivation, there are big groups out there that are making these statements that the reef is dead. Millions of people in Brisbane, Sydney and Melbourne do not have the opportunity I have to go out and look at the reef every weekend when I have a spare moment. They do not know how bad the reef is or is not. They are being told this. It would stand to reason that if people are motivated by these groups that something more needs to be done to save the reef then of course spending money and showing you are spending money on that is a great opportunity to keep those people happy.

Ms PEASE: Can I just ask this: are you politically motivated to be pushing forward this private member's bill?

Mr Dametto: Like I said earlier, I have had the opportunity to work in a tourism based business that operated on the inner reefs, so personally I have seen the health of the reef. I have worked with good reef and it is only getting better. I saw with my own two eyes the damage done after Cyclone Yasi and that the reef is actually improving out there. I think we should be doing our best to sell that good message but, unfortunately, we still have people out there who believe that the reef is dead and dying. The best way for any government to show that they care is to spend some money on it. The question is being posed by the public and other scientists that some of these scientists out there may be giving a report on the reef that is not entirely true.

Mr MOLHOEK: There has been an awful lot of change in the agricultural industry in recent decades—a lot of consolidation, a lot of amalgamations. We have seen the cane fields pretty much become a non-event between the Gold Coast and Brisbane, which is understandable because of the urban sprawl and a whole raft of issues. While I understand that this legislation has had a significant impact, how much of the issue is also just the changing environment in terms of the viability of farm size and equipment costs? Is some of it just due to the fact that people are struggling to come to terms with that?

Mr Dametto: There are multiple factors that growers and farmers face every day out there, and increasing costs is definitely one of them—whether it is electricity or water or all the way through to the world sugar price that fluctuates quite significantly which makes some years viable and some years where you are growing for free.

Mr MOLHOEK: It sounds like farming generally.

Mr Dametto: Exactly.

Mr MOLHOEK: My brother-in-law grows soybeans and thought he was going to make a fortune and then the price crashed.

Mr Dametto: This new regulatory burden and the costs being put onto the grower to actually implement them is just another factor that is going to send some of these smaller growers to the wall. Unfortunately, we are seeing more and more people moving away from the agriculture sector. I grew up in the small town of Ingham, and young people who grew up with their parents sugarcane farming are no longer seeing a future in the industry and are moving away. Our small towns are dying because of this. Our small towns are suffering because these people can no longer see a future in agriculture. With the implementation of our legislation that brings us back to 2010, we would like to see more of a collaborative effort between the state government and growers to work together to try to do this better so we can make sure the industry is viable.

As I alluded to earlier, we have growers out there who are saying that when things changed in 2016 they could deal with that sort of regulatory change but now they are seeing 2019 legislation being enacted in 2021 and they do not know if they can handle this one. What happens in five years when this state government's promise to not change ERA standards runs out? Will we lose more growers? Will more farmers decide to pack up? Will we see the closure of sugar mills? It is the slippery slope that people out there are worried about.

Ms KING: I want to go back to this issue of what you seem to see is politicisation of the science. I am going to return to the report of the previous committee. In relation to the Scientific Consensus Statement, the previous committee said—

> The 2017 Scientific Consensus Statement was produced by a multidisciplinary group of 48 scientists with expertise in the Great Barrier Reef water quality science and management, led by TropWATER James Cook University, with oversight from the Reef Water Quality Independent Science Panel.

That is 48 scientists. Are you suggesting that all of those scientists were somehow politically motivated in their findings?

Mr Dametto: The best way to answer that I think is to say that it is very easy to focus in on different parts of the reef when you are doing your science. For example, your whole area of study might be water quality. There does not seem to be a baseline out there. There does not seem to be a good baseline.

Ms KING: Yet I understand that in 2009 we have markers from when the previous, what was it—

Mr Dametto: We are talking about the health of a reef that is millions of years old and we are taking 20 years of data to decide how much nutrients, phosphorous and nitrogen we are allowed to use in our farming practices. I think we are looking at a very small snapshot of the length and life of the reef here. Once again, I think there are people out there who are pretty motivated to continue to find problems with the reef instead of celebrating some of the good things that are going on.

Ms KING: I think we are talking about modern farming practices here and their impact on a reef that is many millions of years old. Clearly, the impact of farming practices in the last small number of decades is the critical point of interest for this legislation, I would contend. I also want to briefly touch on something you noted earlier when you said that world sugar price fluctuations render certain environmental measures unaffordable. I would like your comments on whether the health of the Great Barrier Reef and our other environmental assets should be subject to something like the fluctuations in world sugar prices.

Mr Dametto: Like I said earlier, I do not think the sugar industry, the tourism industry or someone down in Brisbane has the mortgage over what happens up in North Queensland. We need to all figure out how to coexist. I know I cannot ask the committee a question, of course, but I will ask a rhetorical question and make a bit of a statement. At what point do we get to where we say, 'Hang on a second. All of these things we are doing are not increasing the health of the reef. Maybe what we are doing is not hurting the reef. Maybe we are correct'? At what point do we get to where we think all of these changes we are making in our farming practices and all of these changes that we have made legislatively still are not improving water quality in the reef and then we say we just have to put a line through agriculture now? At what point does that happen? That is what worries a lot of people out there.

Ms KING: I do not believe we are seeing evidence of that at this stage, I am sorry.

CHAIR: We will have to finish this session. I thank the member for Hinchinbrook for his contribution. I now have to leave and the member for Redlands will be taking over as acting chair.

GUERIN, Mr Michael, Chief Executive Officer, AgForce Queensland Farmers Ltd

STUBBS, Mr Alex, Chair, AgForce Reef Taskforce

VITELLI, Ms Marie, Senior Policy Officer, AgForce Queensland Farmers Ltd

ACTING CHAIR: I invite you to make a brief opening statement, after which committee members will have some questions for you.

Mr Guerin: Thank you, Acting Chair and committee, for the chance to present today. AgForce appears today on behalf of cane farmers, cattle producers, sheep and wool producers and grain growers across Queensland to speak collectively, strongly and passionately in support of the amendment bill. Agriculture is a strong industry with an even stronger future. It is one of Australia's strongest industries, and Queensland is the largest agricultural state in the country. In Australia we have what is the envy of much of the world and we do not want to throw that away.

Our opening statement and significant input to this important conversation over a number of years through various committee processes and Australian government Senate inquiries includes: a repudiation of the notion that food producers are a significant cause of damage to the Great Barrier Reef; a strong statement in support of communities, productivity, investment, jobs, economic activity for Queensland and the hopes and aspirations of the next generation across those same measures; a focus on highlighting the truth and integrity for regulations; the science used is not evidence based—rather it is heavily reliant on modelling, assumptions and guesswork; and, lastly, reaffirming an acceptance by scientists, politicians, community and industry that the reef science underpinning these regulations is flawed, as was acknowledged in the Australian government's Senate inquiry of 2020.

At its core, today we are pleading on behalf of communities and families for a general acknowledgement of the flaws and the consequent brutal and potentially unnecessary imposts on individuals and small enterprises across Queensland. Lastly, the ongoing vilification of scientists and others who have an evidence based perspective to bring to the debate horrifies us and must stop.

The Queensland Premier recently stated around COVID-19 that decisions are only based on evidence based science. That being the case, our question to this committee is: why is the science in the underpinning reef water quality and reef legislation not evidence based science? Instead, it is heavily reliant on modelling, assumptions and guesswork. The current reef legislation is impacting on confidence and investment, on rural communities, on the social fabric of those communities and on job opportunities and has the potential in its current form of making a criminal of a producer found not to be compliant, with the onus of proof on the producer. Therefore, in our view, this reversal bill is necessary to re-establish the status quo and develop better ways to achieve environmental outcomes along with productivity outcomes, such as meeting the requirements of the Great Barrier Reef water health and community expectations.

Reef regulations directly affect 13,500 farmers and reef catchments, plus all of those along the extended supply chain who rely on those producers. The Queensland government has an obligation to meet all community and industry needs including both environmental and productivity prerequisites for healthy communities. Since the Australian government Senate inquiry into reef regulations impacting farmers it has been accepted by scientists and politicians, industry groups and others that the reef science underpinning those regulations is flawed. The Queensland government upholds the 2017 reef Scientific Consensus Statement as the basis for these reef regulations. That document has been superseded by new, published and peer reviewed reef science. The government, in our view, needs to re-evaluate the science. Hence the need for legislation in light of this new information and accurate science indicators for nutrients, pesticides and sediment.

The annual reef report card estimates reductions in sediment, nutrients and pesticides by grab samples from water samples, multiplied by total annual river discharge, multiplied by total land use for cane, grazing or bananas. The calculation of annual changes is only assessed against projects funded through state and federal governments. There is no assessment from the majority of reef farmers who have never accepted that reef funding. Even the late reef scientist Dr Jon Brodie stated that the benchmarking for farming loads was an estimated line in the sand. There is no proof of anthropogenic or manmade loads. AgForce policy does not support mandatory reef regulations. We believe in voluntary best practice with accurate, evidence based science.

In our view, the Katter's Australian Party reversal bill is a good first step forward for the 13,500 affected reef farmers. Failing to comply with reef standards should not automatically be a criminal offence. Nor should the penalty fines be so high. The maximum penalty under the Katter's reversal bill is 100 penalty points, or $13,345, instead of the current penalty for a company at 1,665 penalty

points, or $222,000, and 600 penalty units, or $80,070, for individual farmers. Farmers are not criminals. The reversal bill introduces enforceable undertaking as the first penalty, rather than demonising farmers with a criminal offence for being unable to comply with standards. AgForce supports the establishment of an independent regulated overseer or ERA standards in the reversal bill. The Queensland minister should oversee and make the standards, not the environment chief executive with no input from the government agricultural department.

The reversal bill retracts back to three regulated catchments: Burdekin, the Wet Tropics and Mackay/Whitsunday. There would be many forms of farm management plans accepted for environmental risk management plans. Industry accreditation programs for continuous improvement or market access should not be caught up as pathways for reef regulation. The Katter's reversal bill removes chapter 5A, where the chief executive from the environment department controls BMP program content, audits BMP programs and requires a list of BMP producers to be provided to the department. It was sadly this overreach of the Department of Environment and Science that triggered AgForce to delete individual producers' data across thousands of producers from grazing and grains BMP programs a short few years ago. Put accreditation programs back in the hands of industry.

In closing, our formal submission, due by 30 June 2021, will provide the detail behind the statements today. Equally, that detail is contained in comprehensive submissions to the previous committee process and is on the public record. The Australian government Senate inquiry was also provided with that strong detail.

I close by introducing more fully Alex Stubbs. I do so for an important reason, which is that AgForce is simply the collective view of 6,000 producers and graziers across Queensland who care enormously for their communities, their environment and their futures. At any one time, around 120 or more of those members of AgForce give enormously of their own time for no financial gain through their industry body because they care about those communities. Alex Stubbs has led a reef committee now for over seven years that has taken thousands of hours of his time. He is enormously committed to it for the sake of his community, for the sake of the environment and for the sake of the reef. The enormously comprehensive work of AgForce over a number of years around this issue has been made possible by Alex and the other volunteers we have within AgForce.

ACTING CHAIR: Thank you, Mr Guerin. I note a *Queensland Country Life* article of 31 March that you contributed. It is was titled 'Rethink on reef regulations a positive step for producers'. In the last session the member for Hinchinbrook talked about his belief that there was a lack of consultation. On my reflection, from looking through the process to get to that piece of legislation, there was a significant amount of consultation over a significant period. I also note from your article that there have been ongoing negotiations. Could you talk about that? In terms of delivering better outcomes, you are quoted as saying—

> While the proposed changes to the Reef Standards for new cropping and horticulture still don't go far enough for our liking, with mandatory regulations still being implemented on 1 June, they do demonstrate that in 2021 the State Government is prepared to work with industry.

Could you talk about that consultation process, please?

Mr Guerin: I certainly can. By way of context, I will go back and talk about a couple of pieces of legislation that are important to our industry. Over a number of years and ongoing, we have had an ongoing conversation with the Queensland government about landscape management or vegetation management under the Vegetation Management Act. Also over a number of years there has been a lot of consultation and work with the government around reef regulations. In the short almost four years I have been working for this industry in this role, we have had, until March this year, zero to very little recognition of any of the incredible work that the 6,000 members have done—members such as Alex Stubbs. We saw the anger or disappointment—whatever way you want to describe it—for example, with the vegetation management legislation that, after about six years worth of work, many hundreds of pages of submissions and a strong engagement in the committee process that travelled through regional Queensland, there was no acknowledgement of any of that work in the final form of the legislation.

What we saw in March this year and what we want to acknowledge very strongly is the new government's real intent to work with us and acknowledge that work. If it is helpful to the committee, I can give you an example of two of the changes that were made in the final form of what went through. It was a direct reflection of the submissions and work we had put in. As you can see, today we believe there is a lot more to do but to have a government that sat down and worked with us and acknowledged some of that work in the final form—the load that lifted off producers and committees was huge. We want to acknowledge that. We are really hopeful that will continue and we will continue

to work together and be represented as valid people at a table and in a debate. We want to find a way to work together and find common ground, in this case on reef and indeed on other things that are important to communities and industry across Queensland.

ACTING CHAIR: I can see that that is happening and that we are working together. I have been mulling over the repeal of penalty notices for a first infringement that are outlined in this private member's bill. A first infringement could still be significant and serious but you would only apply an enforcement notice and not potentially a penalty. How serious could a first breach be? What is the potential that it could have major significance in terms of its impact? Would it still be considered appropriate to deliver an enforcement notice on what could be a significant environmental issue?

Mr Stubbs: That is yet to be challenged and sorted out. Given that nobody has been prosecuted as yet under this legislation, it would be AgForce's position that we would need to establish that in a court of law.

ACTING CHAIR: It would be fair to say that a first infringement could be of a significant nature.

Mr Stubbs: First it would have to be established that there was a breach. The first thing I would ask is whether there really is a breach.

ACTING CHAIR: There is still the potential for that to be significant in nature, once established.

Mr Stubbs: As of yet, there is no precedent.

ACTING CHAIR: If the breach was established, there is still the potential, although it might be the first breach, that it could be significant.

Mr Stubbs: We have yet to see.

ACTING CHAIR: There is the potential that a first infringement, upon acknowledgement of breach, could be significant in nature.

Mr Stubbs: If you want to go down a hypothetical path, that could be the case. As I say, it is hypothetical. If I could, I want to make a point on your first question to Mike in regard to that media release. We are always prepared to work with government. We are always prepared to work with the department. We are always trying to work for good outcomes for our members. If those changes were not made in the Mary, Burnett and Fitzroy catchments on new and expanding farms, it was our assessment, by how stringent those changes were that had to be made, that there would be no further development. There would be no further improvement. The economies would stagnate.

ACTING CHAIR: It is good to hear that we have been working together.

Mr MOLHOEK: Mr Guerin, you mentioned in your opening remarks some new information or new studies that have been done and you felt they had not been taken into account. Can you elaborate on that?

Ms Vitelli: What we have seen come out of the Australian government National Environmental Science Program is five years of extensive reef research that has shown a lot more new information. The Queensland government is on that steering committee, as are a number of industry organisations. All those reports are now on the web under the NESP Tropical Water Quality Hub. A lot of it is peer reviewed, published science.

It has shown a few things. First of all, there are many sources of what we call DIN—dissolved inorganic nitrogen. It is not only fertiliser. You do get release of DIN when there is what they call ammonium desorption. When you have particulate nitrogen in the water, it is released by what they call ammonium desorption, and that is a source of DIN. Also, when there is particulate or leaf litter or organic matter in the water, it is attacked by algae micro-organisms, and that releases DIN. Some of those other sources are 30 per cent to 100 per cent—not just fertiliser. We are regulating only fertiliser input when there are other sources. That whole nitrogen cycle needs to be understood a lot more in the reef science.

The methodology used for pesticide run-off is questioned as well. After 18 months of annual report cards—changing the methodology for the third time—the Department of Environment and Science released the methodology. That was peer reviewed internally and externally by the reef advisory panel, but there are issues with that methodology. CropLife Australia is a national entity that represents a lot of the agricultural chemical organisations. They have conducted an independent review that shows that there are issues with that methodology in saying that there is additivity of pesticide compounds and the method they use for that.

Also, when you look at the marine monitoring program by the Great Barrier Reef Marine Park, they monitor for pesticide amounts. They have evidence based science. The only place they have actually found it is within the inner-shore reef occasionally or in the watercourse delta. The values are

way below the trigger values for water quality—83 per cent below a value that 99 per cent of organisms are safe. There are no real pesticides getting out to the mid-reef or outer reef. Pesticides should not be regulated. It is not part of chapter 4 of the Great Barrier Reef protection measures in the Environmental Protection Act. I will stop because I could go on all day and I will use up our half hour. There is a lot more information, and we can provide that, if required, on notice.

Mr MOLHOEK: You said there have been a number of new reports produced by this federal agency. As a question on notice, can we have that information provided to the committee?

Ms Vitelli: Tropical Water Quality Hub—Stephen Lewis—yes, we can provide all of that.

Ms KING: Mr Guerin, I want to begin by acknowledging all that you do, particularly in relation to the work that Mr Stubbs has clearly done on the reef committee. I can only begin to imagine that that has taken an enormous toll and involved a huge personal commitment. On behalf of the committee, I want to thank you for that work. I can see that it has been a huge investment of your time and effort over a very long period of time. I am sure that we all join in thanking you for that.

I want to reflect briefly on the penalty units for the various infringements contained in the proposed legislation we are considering. Under the existing legislation, the maximum infringement penalty units are, I think, in the manner of 1,600 penalty units—upwards of $200,000 as a fine for a maximum offence. Under the proposed legislation, the maximum infringement that can be issued is 100 penalty units—$13,000. What is the largest or most profitable producer you would represent amongst your AgForce members? I am not seeking specifics. In general terms, what would be the biggest turnover producer you would represent?

Mr Guerin: AgForce across commodities represents producers as large as the likes of AACo right down to a young family starting out very small in agriculture—so we have the whole range. I can provide data at a high level, if that is helpful, without identifying individuals. In cane, for example, we have a large range from top to bottom. We represent the whole range—all the way from the public companies such as AACo through to the start-out family farming business.

Ms KING: Do you think it is appropriate, hypothetically perhaps, that at the most serious level of deliberate breach the maximum penalty that could be inflicted for misdoing would be a $13,000 fine?

Mr Guerin: The tenor of the current legislation, in our view, assumes the landholder is guilty and there is a reverse onus of proof. We would be very comfortable to talk within that in terms of specifics like those issues, but the tenor of the legislation as it currently is, in our view, as I said, requires a reverse onus of proof and assumes guilt to start with. It does not start from the genuine family farm or individual who cares about their environment making a mistake and that mistake needing to be fixed. That is the broad concern. I would say that industry would be more than happy to talk about the specifics—if we said in the ranges perhaps there is a bit of an equity issue to talk about. That is not the main tenor and concern of what we have put forward.

Ms KING: My concern, looking at this penalty in the proposed legislation, is that it is not in line with community expectations. For the most egregious piece of malfeasance that could be contemplated in an environmental capacity—not necessarily in the agricultural sector but the kinds of environmental harms that can be perpetrated—the maximum penalty would be $13,000 for what are very large organisations in some cases.

Mr Guerin: Alex might have a comment to make. Perhaps I would make this statement. Like any community, the agricultural community wants to abide by the law and be an important part of the community. So 99.9 per cent—or all producers that I talk to anyway—care about the broader environment and want the laws of the land to protect us all. That is the core tenet. I would defer to Alex for any specific response to your question.

Mr Stubbs: In your opening question to Mike, I take exception to the words ‘deliberate breach’. I do not think a farmer or producer would deliberately damage the environment, his soil or water qualities on his property. It is mostly by something they are doing as a past practice that is now considered not a practice or by something that has sneaked over them because of climatic changes—drought, cyclone, serious problems or other matters. Prior to bringing in the Great Barrier Reef Water Quality Protection Plan in 2009—and I sat in old Parliament House and listened it to—there were enough penalties in place within the act then to bring into line and penalise a producer who had done something indefensible and was in breach of certain areas, whether it be water, soil or otherwise. Marie could give you examples. I am not going into the technical aspects. I have put Marie on the spot. She could rattle them off and there are quite a lot of them. This is really over the top now when legislation was already in place to manage those potential breaches or wrongdoings by people in certain areas of management of the environment and their properties.

ACTING CHAIR: You mentioned that there was a reverse onus of proof. That is not my understanding. Could you clarify why you think that?

Mr Guerin: We could probably take that on notice and provide something quite comprehensive, if that is helpful for time.

ACTING CHAIR: Thank you.

Mr DAMETTO: Marie, Michael and Alex, thank you for coming along today to give evidence and also for supporting this bill on behalf of growers and people involved in agriculture—the people your member based organisation represents. My question is around the replication and the checking of the reef science. Michael, could you speak to your views on the benefit of perhaps setting up an auditor to check the reef science to make sure that, as I have said in the past, two plus two makes four and that the data that has been put together in the glossy 20-page documents that we as politicians and legislators read, all adds up?

Mr Guerin: I will answer but I might also, with the committee's indulgence, ask Marie, who is far more of a scientist than I will ever be, for her views. I was for a number of years a banker for my sins. Here is my analogy. When we complete the financials each year as a bank, we do not ask the bank next door to do the audit for us to prove that we are playing by the rules. It is a very independent, and importantly independent, function to hold banks to account. As a non-scientist, when we have peer reviewed science coming to us which tells two stories, one of those has to be right and one has to be wrong. The nature of science is that it is never settled. We are always learning.

When you have new science which tells a story and you have a consensus statement which tells another story and there is an enormous onus of regulation going on based on that, how do you try to get more towards the truth and get more confidence that you can protect the reef while growing industries along the coast, supporting communities and giving young people confidence to enter an industry and make what is a 40-year commitment to the game of agriculture?

Back to the analogy, the idea is that, rather than have a banker check another banker and promise everybody we are both behaving, you seek an independent review. Given the diversity of views, peer reviewed views, views by people who are trained to run the science and the lack of replication in a lot of this work, to us that is the place to go to give confidence to everybody. That the non-scientist response to the question.

Ms Vitelli: I think Michael has summed it up. I know the Queensland government says the bible is the 2017 reef Scientific Consensus Statement by 49 scientists, but there is a bigger world of scientists out there who have different views. With that initial statement, most of those scientists were on reef funding. They then get their friends and colleagues close to them to peer-review that science. Some of the other science has been excluded or not considered. Plus there has been new science come in.

The other thing is that the reef is a very complex ecosystem. Models are the way to go, but models are as good as the information and assumptions in them. Over time there has been most probably a need to clarify some of those models and assumptions and rejig them, but the models have got so complex that no-one can really go back to do some of that work. What we are calling on—and I suppose you will see a little bit more coming from industry—is something like an office of scientific quality assurance, nationally or statewide, if you are willing to support it, to make sure that government policies are made on the best available science and to get that wider view.

In pesticide science, you will see that the work that has been done in the pesticide run-off to the reef is by a group of reef scientists doing their work. They do not peer-review further out. They exclude and most probably dismiss our national pesticide regulator, which is the Australian Pesticides and Veterinary Medicines Authority, APVMA. They do a wealth of work there. They will not register a product in Australia if it has any environmental harm. That is part of their criteria. But none of that work is considered in the reef world. In the peer review process, the scientists then cite their own documents in their own peer review area and build that frontier going forward and exclude all of this other work.

Mr DAMETTO: You would say that setting up an auditor, or an Auditor-General, to look at this sort of thing would be healthy for the science?

Ms Vitelli: Yes. If it is good science, it will be credible and it will stand forward. If you have good work, it is credible. It is replicable. You have the data. You have everything to be able to substantiate it. No-one should fear an independent audit.

Mr DAMETTO: I would tend to agree.

ACTING CHAIR: It being 2.15 pm—

Mr MOLHOEK: I would like to ask a question on notice. On the issue of penalties, I would be interested to see how these proposed penalties compare with other areas of environmental breach. Have you done any comparative analysis or reporting or looking at that?

ACTING CHAIR: We will take that as a question on notice. Thank you very much for your time today. We appreciate the contribution you have made. We really appreciate the support that you provide to farmers across Queensland. Thank you for being here today. For questions taken on notice, could we please have your responses to the secretariat by close of business on Friday, 18 June?

Mr Guerin: Thank you, Chair—will do.

MAMMINO, Mr Mark, Director, Canegrowers

QUIRK, Dr Mick, Environment Policy Manager, Canegrowers

ACTING CHAIR: Good afternoon. I am Kim Richards, the member for Redlands and acting chair of the committee. I will be substituting for Aaron Harper, the member for Thuringowa, for the remainder of this hearing. I now welcome representatives from Canegrowers. I invite you to make a brief opening statement, after which committee members may have some questions for you. Thank you.

Dr Quirk: Thank you, Chair. I will start off and then Mark will give a grower's perspective. Canegrowers, the organisation and its members, have a long history of working with government through voluntary programs to improve water quality through particularly the federal programs—Reef Rescue and Reef Trust—and a lot of that improvement is now being recognised through our Smartcane BMP program, which is state government funds. We feel this is the way that progress is made and that lasting improvements are made in farming.

We do not support and have not supported any use of regulations for farming practices for a number of reasons: they are a very blunt instrument, they tend to disempower growers, and they assume farming can be done through rigid rules, whereas farming has to be a very flexible process.

The 2009 regulations, which is when cane was first regulated, are a good example of how regulations can have adverse outcomes. At that stage, the government took bits of the industry's well-proven Six Easy Steps nutrient management program and made that into fixed caps on nutrient use. This was an improper use of a tool which was meant to be guidance for growers towards optimal nutrient management. It also discredited in a sense or devalued that program in the eyes of growers because they saw that it had become part of a government program. Since then, they have been very reluctant to see any improvement to that program on the basis that anything they do will be regulated. It really restricts and discourages innovation. We support voluntary change.

Our growers and members have been living with those regulations since 2009. We then see the increased regulation of the industry in the 2019 act, and there we see further diminishment of the integrity of that Six Easy Steps program, where they are now changing the focus to what they call an N and P budget. It takes the focus away from the evidence based recommendations. It actually adds a lot of confusing and complex paperwork requirements that add no value to the process, and this will have no benefit for either crop production or water quality. So the regulations added in 2019 add no value and just further frustrate growers.

We had consultation a number of times with the government. We did not agree very often. Consultation does not mean we agreed to anything. The original intent of that regulation was to force growers to reduce their rates below optimal rates. Through our efforts and the efforts of agronomists, we convinced the departmental staff that that was not a good idea and, thanks to good sense, they took those provisions out of the regulations. The regulations are basically set up to allow that to happen at any time. It is still a clear and present danger to the industry to be forced to be underproducing, less profitable and potentially threatening the viability of our local mills. We did a report during 2020 that quite clearly documented that risk.

The 2019 regulations, on top of the 2009 regulations, have just added to the confusion, frustration and anger of growers, and we are finding that it erodes their confidence and trust in both government and science in general, and they are increasingly unreceptive to discussions about water quality. If that is the outcome the government was after, they have been successful.

We support in principle the bill that we are discussing here today; however, we support any move towards reduced regulatory burden on cane farmers. We will provide a more detailed submission. We are a bit concerned about the ERMP requirement remaining in the 2009 bill, as that was another example of lots of paperwork with no value. In fact, the government stopped requiring that provision in their compliance program, but it is still there and could be reactivated. We would like to see some improvements to the bill, but we are very supportive of the general notion of reduced regulation.

Mr Mammino: I am a director of Canegrowers Queensland. I also serve as chair of Canegrowers Isis in the southern region of the cane-growing industry. I am a third-generation farmer. To go right back, my grandfather had a long, strong belief in protecting our soil for my generation and future generations, so we valued our farming practices. It is now just a little over 100 years we have been farming sugar cane in the Childers region in southern Queensland.

We support and acknowledge the reversal of the amendment bill moving forward. From a Queensland canegrower's perspective, we were never supportive of a regulatory process in the beginning, right back in 2009. We have always believed that we have achieved more in working with

government in a proactive manner, rather than a combative manner which the regulations are now creating for us. There have been a number of instances throughout the last 30, 40 or 50 years where government working with the agricultural industries have probably achieved a lot more faster than what we are through this regulatory approach.

I sit in the Bundaberg region, where Six Easy Steps was created in the late 1980s. I have followed those Six Easy Steps right back from the 1980s. From an industry perspective, it dismays us that a program or tool that was developed by our industry to help us minimise putting on too much fertiliser was brought in to make sure that we were profitable farmers that were doing the right thing. We have followed that through and now we have a tool, a program that we created, that is being legislated which restricts us to fine-tune that whole process now to make sure we are doing it right.

We have looked through this whole process. There has been no recognition from the state government of the efforts that growers have put in to improve and innovate farm practices. There has been a lot. A lot of those farm practice changes and innovations happened long before 2009, especially in the south.

I not sure whether anyone realises that the Childers-Gin Gin area was part of a major land use scheme back in the 1970s where, in cooperation with the government, we took the erodible, steep, red soil hillsides around Childers and Gin Gin out of sugarcane production and put it into flat country further away from town. It was more marginal soil types, but, as an industry, we accepted that we had to do the right thing back in the seventies to do that. We have been working since the seventies to do those types of issues. To come back and regulate us in the south, it has hurt us a little bit.

When you analyse it, we sit outside the Great Barrier Reef Marine Park zone. We sit 100 kilometres to the south of the southern tip of the Great Barrier Reef. All my friends who go out to that southern tip of the Great Barrier Reef report back to me that the reef is still growing to the south. It is hard for us to take that we are doing damage to a reef that is actually growing on its southern tip.

As growers, we are always wary when we have discussions around reef water quality because nothing that we seem to do now is good enough. The current report card process sets up growers to fail. We can never win under this current report card process. We need to see some changes. It is good to see that there is going to be a review of the Paddock to Reef process, but we need to have some confidence that if we make changes it will be picked up in that report card. Unfortunately, everywhere we look now, we cannot see how we can show any improvement. In closing, good farming cannot be based on a one-size-fits-all approach, and this is what the regulation imposes on us as growers.

ACTING CHAIR: In terms of the development of those Six Easy Steps—back in the eighties, was it?

Mr Mammino: Late 1980s, yes.

ACTING CHAIR: A lot of those Six Easy Steps, on my reflection, have been incorporated within the bill and were part of the enhancement of the profit sharing. Can you tell me where you think the regulations deviate so significantly from those Six Easy Steps?

Mr Mammino: It is not so much the deviation; we have been forced to follow something that we have been doing ourselves and were doing voluntarily. We had the flexibility to look at those Six Easy Steps and, if we had to, we could modify them to suit specific situations, but now it is a one-size-fits-all type of approach.

ACTING CHAIR: In essence, you are saying the Six Easy Steps have been incorporated within the regulations?

Mr Mammino: Yes, they have.

ACTING CHAIR: It is just now that you are being forced to adopt your own Six Easy Steps?

Mr Mammino: We have been forced to take the strict model of the Six Easy Steps without any flexibility.

Dr Quirk: If I may comment, they were developed as guidelines based on extensive response measurement in paddocks and then extrapolated to lots of other situations. They were always meant to be the starting point from which a grower could evolve the optimal nutrient management. They were never meant to be a fixed line in the sand which regulation makes it. It also only looks at the nitrogen and phosphorus levels. It discourages growers from looking at the whole soil health issue, which is critical to our industry. In fact, it has put off growers getting involved in Six Easy Steps more generally as a useful package because they see it now as a government program.

ACTING CHAIR: In essence, the Six Easy Steps was still something developed by your industry for your industry?

Dr Quirk: Yes, and we still support it and deliver it when we can get through growers' mistrust.

ACTING CHAIR: Hopefully that is something that we can all work on together, because that is something that you have developed and we have assisted to incorporate.

Dr Quirk: We look forward to that.

ACTING CHAIR: In terms of the Smartcane BMP, can you tell me how many growers have been accredited as a percentage of the industry?

Dr Quirk: We usually go by the percentage of area, because a lot of the smaller growers are part-time and do not get involved. Statewide we have 35 per cent of the area accredited; they have been through a third-party audit process. As we go from south to north, that tends to increase. The Wet Tropics has been under more regulatory pressure. In Tully, for example, 80 per cent of the cane land is now accredited in BMP. Unfortunately, the Tully district still gets an E rating from the report card. No-one can tell us why that is the case. It is creating a huge disincentive now. A lot of those growers, having been accredited for five years, are now going to reaccreditation and they are saying, 'Well, what is the point? No-one takes any notice of our achievements.' With the report card process, as Mark intimated, the practice targets require much less fertiliser than the Six Easy Steps recommends, so how can we ever reach the B and A standard in that A to D categorisation of practice quality when we can only get to C with industry best practice? We have been pushing for a long time, and the state government has now announced, with the federal government, a review of those targets, but they have been sitting on their hands on that for quite a while.

ACTING CHAIR: That was 35 per cent, with 65 per cent of canegrowers still to potentially go through that process?

Dr Quirk: Sixty-five **per cent** of the area, yes. In the Wet Tropics it would be over 50 per cent of the area accredited now.

Mr MOLHOEK: We heard earlier from one of the representatives from AgForce that there have actually been no breach notices served so far. If that is the case, how concerned are farmers and your members about the reef regulations? How many people have raised this with you as a concern? Are people concerned about this or are people starting to settle in and accept that this is the way things are?

Dr Quirk: That is a good question. I started with the cane industry in 2015, when BMP was first starting off. At that stage, with the 2009 regulation there was quite a bit of negativity. Most of those growers that we dealt with had been involved in Reef Rescue, reef trust type projects but were increasingly frustrated by regulation, the poor report cards and demonisation of growers. There is a perceived view that the importance of water quality is greatly exaggerated over all of the other things that affect the health of the reef and that they are the only ones that seem to be targeted. I do not think they have really got used to the idea that regulations are a good thing. Some growers might recognise that some level of regulation may always be around, but we see a great risk with the 2019 example of that being intensified and providing a real risk to their productivity, and knowledge of that is creating a fair bit of pessimism amongst growers. Mark, do you want to add anything?

Mr Mammino: I suppose there is a fear among growers that they do not know if they may breach it. There are some strict guidelines when you look at the Six Easy Steps. Even though we are applying fertiliser with pretty good precision type applicators, there is still a margin for error, and if we accidentally go a couple of kilos over of a particular nutrient we are at risk that we could be classified as breaching it. It might not be a deliberate one, but there is that fear amongst growers that they do not know how close they are floating to the line. We have a lot of small growers who cannot invest in precision applicators. A lot of them work off-farm and only work their farms on weekends, so they are not 100 per cent sure what they have to do. They are probably what we call some of our disengaged growers. It is not hard to engage all the growers. Growers are nervous about what they are doing all the time, whether they are or are not doing it. Probably 99.9 per cent are doing the right thing.

ACTING CHAIR: It is important to have regulations in place when you have people who do not necessarily know, as you have just said.

Mr Mammino: They know, but they do not know at what point they could cop that $13,000 fine.

ACTING CHAIR: Hence why regulations are really important: to explain what the requirements on growers are, I would have thought.

Mr Mammino: I do not know whether you have ever sat down to understand how we determine how much of a nutrient we put on. It is not that simple a process. Even going through the Six Easy Steps is not an easy process from a grower's perspective. They need people to advise them as well. Some of those advisers are not necessarily doing it in the best interests of the growers. If it is an adviser that is part of a reseller, sometimes they are doing it for their own benefit as well.

Mr MOLHOEK: How many farmers have actually raised this issue with you? How many members do you have and how many would actively have spoken to you about the issue or raised concerns about the new regulations on canegrowers?

Mr Mammino: Because I farm in the south, the 2019 regulations have not come into effect for us at this point in time so a lot of our growers are still trying to get used to it. I am only basing my experience on talking to growers in North Queensland. Mick is probably more experienced with that because he talks to growers across the whole industry, so I will let Mick reply.

Dr Quirk: We have about 4,000 growers in Queensland. We represent about 80 per cent of them. Every shed meeting I go to from Mackay north that have been regulated, all questions to me at this stage—you do not have to mention the reef because they know the job I do—are about water quality, the reef, being demonised and regulations. They are not so much worried about the fines. I think they find it offensive that such fines could be imposed for going one kilo over on a fertiliser rate of 140 kilograms per hectare when the calibration is plus or minus 10 per cent and that is the best you can do. This is the problem with regulation. It is a very blunt instrument. People think they are effective, but I do not think there has been any evaluation of their value since they have been in place.

By the same token, I will give the department their due: their compliance team have taken a very constructive approach to doing a difficult job—one that we do not welcome, but they have worked with growers over a period of time to avoid getting to a point and they have been reasonably accommodating as they have learned about the limits of farming practices and calibrations and so forth. One of our growers did suggest that one of the compliance officers grab a kilo of fertiliser, walk across a hectare and see if he could work out where he has put the fertiliser. The compliance team have been constructive.

Ms PEASE: Thank you very much for coming in. You mentioned 4,000 growers. We have talked today about the Six Easy Steps and how we have adopted that as part of the regulations that came through in the 2019 bill. We have also this morning spoken about the World Heritage park not being just the reef itself; it is also the coastline, the inner reef, the seagrass, the fresh water ways. These are the areas that we have to consider when we are talking about run-off et cetera. Would you agree with that?

Dr Quirk: I think since the start of Reef Rescue growers have agreed that if they can improve water quality in their catchment—for the catchment, the estuary or the inshore areas—they are happy to do that. Canefarmers, I believe, would be the most frequent visitors to those areas. They fish regularly—perhaps not as often as they used to—and they care greatly for those environments. We have had issues, not with the marine scientists per se but those who hear bits and pieces of marine science and become, I guess, sudden experts on the land and about how farmers are affecting the outer reef et cetera. We believe that the extent of the influence of water quality, particularly in relation to DIN, has been generally exaggerated in catchment management authorities and in policies. We find that when marine scientists are talking directly with our members we get on the same page very quickly. It is about communication and asking some hard questions and getting some good answers. You do not get that from a science consensus synthesis process which does not include growers and generally focuses on why water quality is an issue. It is sort of predetermining the outcome: they will find issues with water quality. I am not saying there are not issues, but we are saying that seems to be the only thing that gets a focus. People tend to exaggerate it because they have a perception that that is the influence. I was at a science meeting recently—

Ms PEASE: Can I interrupt you there? What people exaggerate it? What people are you talking about that exaggerate it? Are you talking about the 48 peer reviewed scientists that are exaggerating the science or are you talking about just people at the pub talking about it?

Dr Quirk: No, people running field days with reef projects with growers that I have attended have made statements that 'your run-off is affecting the outer reef' et cetera. I go to several of the water quality synthesis workshops, and it was only recently when they showed a map of the extent of the potential DIN influence in the lagoon. That was quite a surprise to half the audience, I would say—the half that were not really scientists. They were catchment environmental officers et cetera. They actually said, 'I don't think we should share that information out,' which is a concern.

Ms PEASE: I am not sure that I understand what you are saying there, sorry. Who are these people is what I am trying to understand.

Dr Quirk: People who are working in reef projects up and down the coast with local natural resource management groups, conservation groups et cetera.

Ms PEASE: Do you have any evidence of those allegations?

Dr Quirk: I was at the meeting. All I am saying is that people were not aware of the spatial extent of DIN as it comes out of river catchments and where it physically gets to and for how long. When that was presented to them, they were surprised.

ACTING CHAIR: Can you provide a copy of that presentation?

Dr Quirk: It was not my presentation.

Ms PEASE: Can you point us in a direction as to where that information can be obtained?

Dr Quirk: Off the record I will help do that, sure.

Ms PEASE: Can I have that as a question on notice?

Dr Quirk: Yes, sure. I am not throwing people under the bus here. I am not a politician; I am just here to say the issues we are dealing with.

Ms PEASE: We are taking your evidence and I want to be able to look at your evidence and be able to see that it has been tested.

Dr Quirk: Yes, fair. Understood.

Mr DAMETTO: Thank you very much for coming along and giving evidence today. In fairness, Chair, I would like to pass my question to the member for Mirani, who sits on this committee. If there is an opportunity at the end, I would love to ask another question.

Mr ANDREW: Good to see you both. There has been $18 billion or something spent on this whole reef regulation through the Reef 2050 Plan. Are you aware of that?

Mr MOLHOEK: It has not been spent yet. It is a commitment.

Mr ANDREW: It is a commitment over the next 10 years. You are very familiar with the Reef 2050 Plan?

Dr Quirk: Yes.

Mr ANDREW: Is any of that money going to be taken for a review process on the new scientific evidence that has been seen? I have spoken to AgForce recently. Is there any money allocated to a review?

Dr Quirk: The review of the existing science?

Mr ANDREW: In the review of the existing science and the implementation of the Reef 2050 Plan.

Dr Quirk: Not that I am aware of. We would like to see a more open discussion on the marine science, that is for sure, but our immediate concern is the catchment science, where the practice targets for us are totally uneconomic. That is not based on any agronomy that is published; it is just based on practices that assume growers can get away with 30 per cent less fertiliser based on no evidence. There is sloppy science happening at the catchment level, and that is where our initial focus has been.

We think generally the marine science area is very complicated. We would like to see more open debate. We made recommendations to the Senate inquiry around how you could modify the funding process right through to review, because reviewing a few papers just gets a 'you are right; I am wrong' type polarisation situation. I think there are much better ways. The Chief Scientist of Australia has given some clear points as to how that could be done in a number of different science fields. I do not think the plan has anything apart from the five-year review of the consensus statement.

ACTING CHAIR: In terms of the funding, are you referring to the announcement today?

Mr ANDREW: The previous chair was speaking about the federal funding. We do not even have a baseline. We are throwing all this money at it. What are we trying to chase? What do you see from the government's perspective or from the regulations perspective—

ACTING CHAIR: Member, that is extraordinarily hypothetical.

Mr ANDREW: We have not ascertained a baseline. We are throwing a lot of money at trying to correct something that we do not have a baseline for.

Dr Quirk: Baseline for water quality?

Mr ANDREW: Yes.

ACTING CHAIR: Member, we do have a baseline. It is well documented.

Mr DAMETTO: There are various baselines, Chair.

Mr Mammino: There is not one. If you follow it, it is more than one.

Dr Quirk: It is a very confusing space, the reef area. Most of the baselines, as you have indicated in terms of water quality, in terms of what was pre-European, are obviously modelled, I think with the best intent, but we are always going to have to deal with modelled baselines. That presents challenges in terms of credibility, because growers like to deal with something they can hear and touch and feel. We are actually working at the moment with a lot of the catchment modellers to better understand their process and to evaluate where we might see deficiencies so we can help provide data to rectify that. As I say, a lot of our problems at the moment are with the whole reef report card framework for practices which basically means we are always going to be a D or an E, which is the basis of why regulations were brought in. The wheels are not turning fast enough, yet the report card has two levels that we cannot afford to get to. That is the big issue for us.

ACTING CHAIR: Thank you very much. That concludes this part of today's public hearing. Thank you for your time today and thank you for the work you do with canegrowers. We are very grateful for it.

Dr Quirk: You will send me a reminder about that information you need?

ACTING CHAIR: Yes, thank you. For any questions taken on notice, we ask you to provide your responses to the secretariat by close of business on Friday, 18 June.

Proceedings suspended from 2.45 pm to 3.02 pm.

LOWE, Mr Stephen, Chair, Australian Banana Growers' Council (via videoconference)

McKINLAY, Ms Michelle, Industry Strategy Manager, Australian Banana Growers' Council (via videoconference)

ACTING CHAIR: Good afternoon to you both. I invite you to make brief opening statements, after which the committee members will have some questions for you.

Mr Lowe: I will give a quick background of our industry: 94 per cent of Australia's production occurs in Far North Queensland, in the Tully, Innisfail and Tablelands area, and Lakeland in Cape York is also becoming an expanding area; 11,300 hectares, approximately 260 farms; annual value of farm production, $600 million; a major employer of Queensland and Australia, around 5,000 full-time equivalents but up to 12,000 when you work out the flow-on effects.

In short, we believe that the water quality regulations created by the state government are really not necessary for the banana industry. Prior to regulation, the majority of banana growers already had high environmental outcomes and excellent farm practice. The main reason behind this was consumer driven. At least one of the major retailers requires growers to be accredited to F Environmental standards before it will accept their fruit.

Currently, 65 per cent of the Wet Tropics area production land is accredited under the Freshcare Environmental scheme—that equates to 96 farms—and the rate increases. For example, there are four new growers signing up and working towards accreditation this year. It is a third-party audited scheme. As I said, it is consumer driven. We do not need an extra layer of green tape from the government.

We also have our own best management practice scheme, which we initiated in 2013, and 90 per cent of our industry by area has signed up to this scheme and farms according to the checklist. This scheme has extension officers helping farmers to improve their practice. It is also a fact that our BMP and Freshcare Environmental standards are closely aligned.

As an industry, we have been reducing the amount of nutrient applying to crops over the last 10 to 15 years. This has also been driven by best management practice. Our industry is rather fortunate that we are in the situation where we can apply nutrients on an as-required basis, so we can apply a little bit often as the crop requires, determined by agronomy.

I will take a quick look at the Scientific Consensus Statement, which started off all the reef regulations. Bananas' dissolved inorganic nitrogen load by land use is less than four per cent of the problem. Particulate nitrogen is less than one per cent of the problem. Particulate phosphorus is less than one per cent of the problem. Sediment, again, is one per cent of the problem. If we look at the Cape York area, the Lakeland area, the numbers are zero, zero, zero and zero. Despite these small numbers, the government decided to include bananas in regulation for minimum standards of nutrients and also recently for what we call greenfield sites, so new farmers have to comply with environmentally relevant activities.

We have worked closely with the department as an industry and we are happy that the government has listened to our requests for the minimum standards to align with the BMP guidelines. Unfortunately, the minimum rates for nutrients set by the government are really only best guess. More research is being done, but the legislation has gone ahead without that research delivering results at this stage.

In relation to new cropping land developments, which is the greenfield legislation which came into effect on 1 June, this is not required. The existing minimum regulations take account of everything that is in that legislation anyway. Especially in the Lakeland area, where there is zero per cent impact on the Great Barrier Reef, it is a cruel blow that the government has decided to continue with having these greenfield sites legislated.

In closing, I think we could supply the inquiry with evidence, if required, that much better results can be achieved by extension programs and matched funding projects aimed at practice change. I think we have plenty of proof of that situation.

ACTING CHAIR: Michelle, do you want to add anything to that?

Ms McKinlay: No, I am just here to support Stephen. I do not have an opening address.

ACTING CHAIR: Stephen, could you talk a little bit more about the practice changes you just mentioned? What are the practice changes that you think the banana industry needs to be focused on?

Mr Lowe: We are heavily focused on applying nutrient at the rates shown by agronomy for the plant to require. This is a win-win, because obviously farmers save money by not putting too many nutrients on and also making sure they put the right amount of nutrients on so they get production. In our business, if you do not have production you will fail. The other major practice change that has occurred over the last 10 years is the use of vegetation inter-row to stop the run-off of particulate matter from farms.

In terms of matched funding projects, we have numerous examples of sediment traps and the latest technology of anaerobic drainage systems. The farmers are happy to put money in when they can see such good results from these projects.

ACTING CHAIR: Could you talk a little bit more about the Freshcare Environmental scheme and where it differs from the regulations?

Mr Lowe: The Freshcare Environmental scheme is fairly well aligned with our best management practice scheme. I guess the major difference with the regulations is that it does not actually define a figure for dissolved inorganic nitrogen and phosphorus. It just relies on best management practice and use of agronomy in that regard. It has all the other elements of run-off from farms in terms of particulate matter and vegetation on farm and making sure you do not have erosion on farm. I could supply more details out of session if you require.

ACTING CHAIR: Freshcare is recognised under the act, as I understand it.

Ms McKinlay: That is right. Yes, it is. We have just been involved in a long process with people from the Office of the Great Barrier Reef and from Freshcare themselves. We have been able to get the Freshcare Environmental scheme recognised.

To expand on what Stephen said, the Freshcare Environmental scheme will recognise all of the components within the regulations. Up until when the regulations started—Stephen is exactly right—there was that alignment with BMP and Freshcare Environmental. The Freshcare Environmental scheme has to take into account any laws that exist. Part of the process has been adapting that so that there is now a banana chapter, if you like. Because Freshcare Environmental applies to any horticultural commodity, there is now a specific banana chapter in there that picks up the specific nitrogen and phosphorous rates that have come through in the regulations.

ACTING CHAIR: That is a good acknowledgement of the industry and its position on Freshcare.

Mr DAMETTO: Thank you for coming today and giving us your take on how the bill will help the banana industry and also talking about some of the problems with the government's legislation. I need to acknowledge the banana industry. In the words of a Kennedy Valley gentleman, Geoff Bush, growing bananas is like growing bananas for free for 10 years and waiting for someone else to have a cyclone or a problem overseas. It is very hard to be profitable in the banana industry. Also when there is an opportunity to capitalise on that profitability, you need to be able to produce. Without production, you just cannot survive. With the current legislation in place, can you talk about how this will reduce production in the banana industry in Queensland and also what the benefits would be in repealing this legislation?

Mr Lowe: We do not actually know how much, if any, production would be reduced because no-one has done that research. Like I said in my introduction, we are fortunate as an industry that we can apply nutrient on an as-required basis. So long as we can get good agronomy and people use agronomists, we should be okay in terms of production. However, in terms of affecting industry and having regulation, that is a different story.

What the inquiry has to come to terms with—and this seems very difficult for government—is that any regulation on farmers is always piled on top of other regulation. I know that some of this regulation is from the private sector, from consumer driven schemes like Freshcare Environmental, but, believe me, it all adds up.

You can have a Public Service team working out a scheme to help the reef, but it is very hard for them to understand that, even though it would appear to them that the regulation does not have much of an impact, all of those little impacts add up. You have workplace health and safety. You have consumer driven regulations. You have umpteen amounts of regulation on farmers. Unfortunately, we are not corporates; we are small businesses mostly. We are running out of time to go to the field and farm. We have been burdened with regulation.

Mr DAMETTO: I would have to agree with you. My father had a small banana farm just outside of Cardwell for some years. You are spending most of your time injecting banana bells or picking or growing or working in the shed. All of a sudden you have another layer of legislation and regulation on top of that to comply with. Like you said, it stacks up eventually to a point—

ACTING CHAIR: That is a statement. We just heard from AgForce about the development of Six Easy Steps back in the mid-eighties. Developing those Six Easy Steps that have been incorporated into the regulation was industry led. I am keen to hear your thoughts in terms of industry input on those Six Easy Steps. Where do you think the gaps are?

Mr Lowe: The Six Easy Steps program is for sugarcane production. That is my understanding. Is that correct, Michelle?

Ms McKinlay: Yes.

Mr Lowe: Even though I grow sugar cane as well, I have not had a lot of experience with Six Easy Steps. In terms of bananas, we have worked very closely with the Department of Environment and Science. We have had some good outcomes in developing the legislation that is in place now. That does not mean that farmers want to be regulated. We were forced into regulation. We have not buried our heads in the sand. We have cooperated with the department and got the best outcome for the environment and for growers. My point is that that does not mean that growers think regulation is good. I am of the firm belief that the same, if not a better, outcome could happen without regulation, by encouraging people to have practice change through extension and matched funding projects.

Ms McKinlay: To expand on what Stephen has said, a lot of research has gone into the cane industry to come up with a scheme like Six Easy Steps. That has not happened in the banana industry. We have a much shorter relationship with water quality issues than other industries have. You also need to keep in mind that banana production is much more complicated than cane. We have a joke amongst our extension officers that for bananas it would be, 'What are the 600 easy steps for the banana farmer?' because it is not the same sort of process. We do not have so much as gaps—we have almost no knowledge to say where there is a gap. We do not have that strong basis.

There is one project that Stephen referred to before which is looking at what might be some optimum nitrogen rates for banana crops. That will be the first evidence we have to help growers with that. That will deliver some great outcomes for water quality. Again, it will have to be adapted depending upon the farm—its soil type, its location, its rain. There are a million variables. The results from that research should start to come very soon and then we can start a journey. I do not think we will ever end up with six easy steps, but we can start that journey towards having a better understanding of nutrient application rates.

ACTING CHAIR: It sounds like an important piece of work given—

Ms McKinlay: It is really important.

ACTING CHAIR:—bananas are second to sugar cane in terms of nitrogen pollutant?

Ms KING: It is the second highest polluter of nitrogen after cane.

ACTING CHAIR: My understanding was that bananas are the second highest pollutant to sugar cane in the Wet Tropics.

Mr Lowe: I do not know if that is true, but if that is true there would be a huge gap between those figures.

Ms McKinlay: Yes. We are the second largest plant crop by footprint. I am not sure there is any other reason for that. If you look at some of the stats, we are at four per cent, I think Stephen said, for DIN and cane is—

Mr Lowe: Forty-seven per cent.

Ms McKinlay: It is significantly higher.

Mr DAMETTO: Are you pitting industry against industry?

Mr Lowe: I do not want to, no. I do not want to pit industry against industry. The Scientific Consensus Statement says that.

Ms KING: I want to acknowledge the work of your growers in providing us right across Queensland and Australia with your beautiful produce. I know how much goes into representing a diverse group of growers. It must be a huge investment of your time and energy. I want to acknowledge and thank you for that on behalf of the committee. You mentioned the Freshcare Environmental program. Is 'program' the right term to use?

Ms McKinlay: It is a scheme.

Ms KING: You described that as private regulation. Is that a consumer program that growers sign up to be part of?

Mr Lowe: That is correct. A major chain store requires Freshcare Environmental before they will take your produce and sell it in their store. Yes, the driving force behind that is the consumer saying that they want a product that is sustainable and will not harm the environment.

Ms KING: We know that large corporations, whether they be supermarkets or others, do not necessarily do things purely for their own good feelings. Do we take it from that that consumers are interested in the environmental credentials of your products?

Mr Lowe: I think they are highly interested—yes, I do. I think that is why the chains have required this. It is only one reason the chains do this, and that is that they are really scared of someone putting on social media that this product is harming the environment. It is all about reputational damage.

Ms KING: What I took from looking through the submission that your body made to the former committee on the former legislation was a really proactive preparedness to work with government on what the regulation looked like and very much a willingness to be at the forefront of the environmental conversation around the development of your industry. It strikes me that that there is opportunity for your industry, in terms of working on these regulations, to step into the environmental spotlight as producers in a positive way. Would you offer us your reflections on that?

Mr Lowe: We have always worked cooperatively with the department. We see no sense in not doing that. I think I have mentioned that we have achieved some good outcomes in terms of the direction of the legislation. Once again, I could not stand before you and say that my growers are happy to be regulated because they are simply not.

Mr MOLHOEK: Stephen and Michelle, thank you for your time today and thank you for growing all of those bananas.

ACTING CHAIR: It is a lot.

Mr MOLHOEK: I can count the number of bananas my kids have eaten over the years. I would put bananas up there as probably second only to milk in terms of a staple for families. We certainly do appreciate the work of your members in feeding all us Aussies.

We are a bit in the middle. The Katters have introduced this legislation to wind some things back. The original legislation was introduced by those in government. Is there some middle ground here? Of the proposed changes that the member for Hinchinbrook has put up as part of this amendment bill, what are the issues? What are the one or two issues that are critical that will make a significant difference, or have the industry accepted this and are getting on with these practices now and are okay with it? What are your members saying?

Mr Lowe: I think there is definitely some wisdom to your speech. What we are not happy with at this stage is this new greenfield type environmentally relevant activity legislation. I do not think the legislation takes into account what farmers in general do for Queensland. In terms of that strip of country from, let's say, Mackay up to the tip of Cape York, if we do not farm it what are we going to do with it? It is a huge industry. It is a huge amount of money coming into the economy. It is a huge number of jobs. It is a huge use of transport up and down the coast. Bananas are responsible for making transport cheaper for goods going up the coast.

We are talking about the reef. Yes, we all definitely want the reef. We want tourism. Bananas cannot survive without tourism. We are proving that now because we do not have any workers. That is where we get our workers from. Putting unnecessary impediments on the expansion of industry in that part of the world is not forward looking. I think that type of legislation is backward looking.

Ms McKinlay: To expand on what Stephen has just said, compromise can be around growers who have Freshcare Environmental accreditation being exempt from the site-specific and the standard permits that are going to be required for new cropping land development, because we think they have more than demonstrated their commitment to good environmental practice. The other thing that growers in Cape York are saying—and there are not many of them—is for them to be exempt from this aspect of the regulation as well. They are exempt from the minimum standards regulation, which was the first part of this regulation to come through. For some reason—it is unclear why—Cape York has been caught up in this next round around new development. Given that there is zero impact from bananas across the DIN and the phosphorus sediment, they are seeking to be exempt as well.

Mr MOLHOEK: That is interesting. Thank you.

Mr ANDREW: Was Freshcare there before the first part of this legislation was passed?

Mr Lowe: Yes, they were.

Mr ANDREW: It basically stabilises your production. Do they do an audit every year?

Mr Lowe: That is right—a quite extensive and expensive audit.

Mr ANDREW: What is their position towards the bill itself?

ACTING CHAIR: They have been incorporated in under the act.

Ms McKinlay: The Freshcare Environmental scheme is recognised under the new regulation.

Mr ANDREW: I just wanted to understand how that worked.

Ms PEASE: With regard to the Freshcare Environmental scheme, I understand that it is a scheme that adheres to minimum standards across a number of areas, not just the banana chapter. As you say, it goes across the whole agricultural sector; is that correct?

Mr Lowe: Yes, that is correct. It has a lot of food safety involved in it as well.

Ms McKinlay: It is for horticulture rather than agriculture.

ACTING CHAIR: There being no further questions, thank you very much for your time. I note there were no questions taken on notice in this section. Thank you for all that you do in terms of supplying bananas and our magnificent Queensland produce.

PHILLIPS, Mr Gareth, Chief Executive Officer, Association of Marine Park Tourism Operators

ACTING CHAIR: Mr Phillips, I invite you to make a brief opening statement, after which committee members will have some questions for you.

Mr Phillips: Thank you very much for this opportunity. I have only recently been appointed to this position, replacing Col McKenzie after 20 years. Taking over this role in the middle of a global pandemic has been challenging, for lack of a better term, so I really appreciate this opportunity. My background is as a marine scientist. I have a business in research and education and I represent the peak body for marine park tourism operators.

The Great Barrier Reef is a global icon and forms part of the Australian people's identity. We are all very proud of our natural environments, and the Great Barrier Reef is one of them. It is the No. 1 choice for nature based travellers—nowadays within Australia—and in the top three for travellers from within our country and overseas, so it is significant. Pre COVID, tourism within the Great Barrier Reef area was a $6 billion-plus industry and supported 64,000 jobs. It provides nature based experiences for over two million people every year, so it is a significant industry in that regard.

The Association of Marine Park Tourism Operators, AMPTO, has a not-for-profit membership base and represents marine tourism operators not only within the Great Barrier Reef but also all operating marine parks within our coastline. We have over 110 members—I think this year it is probably close to 135 members—and our membership carries about 95 per cent of that pre-COVID number of two million-plus visitors to the Great Barrier Reef. The marine park tourism industry is going through its toughest period ever, with a never before seen 100 per cent shutdown on 22 March. A lot of our members went out to sea, and by the time they came back they were not allowed to go back out to sea. Tens of thousands of people and assets were just tied up against the wharf. It was a complete shutdown and it has been an exceptionally slow rate of recovery for us.

The industry has had to deal with many challenges in the past, one of the key issues being reef health. That is a key topic and it has been going on for a long time. It is a very complex topic. The Great Barrier Reef is a large and diverse ecosystem with multiple different habitats, from inshore fish nurseries and mangroves to seagrass beds, sea sponge isolates and coral reefs, which are themselves all connected and work together to make this amazing ecosystem we know as the World Heritage Great Barrier Reef.

An unhealthy reef ecosystem will have a significant negative impact on our tourism industry and will result in a loss of jobs and infrastructure. Some of the most common questions we get from passengers are—and I heard Nick mention this—'Is it still worth going to the Great Barrier Reef? What will I see?' Probably the most common question is, 'What will the visibility be out on the reef?' Our product is the reef. A lot of people think our products are our assets. The vessels and obviously our staff are assets, but it is actually the location, the ecosystems that we showcase to the world and to Australians. The more people think it is in poor condition, the fewer people will travel to the Great Barrier Reef. There is whole raft of issues around messaging on the Great Barrier Reef and its condition.

After hearing some of the earlier statements from other witnesses, I can second those concerns because a lot of them are often exaggerated. Tourism has been held to account for trying to counteract those negative messages as if we are just trying to protect our investment. To be quite honest, we love what we do. We love the reef. Yes, we make a living out of it, but we want people to fall in love with it and therefore look after it. We are kind of being hit with our own stick, so to speak, when we do it. As a result of our need to have a healthy ecosystem for the reef, not only for our businesses but also for us socially and economically for the country, we do support legislation that strengthens reef health, but not at the expense of an individual sector. One of our strong beliefs is that a more collaborative and consultative approach is the way forward. If we get more people at the table willingly and we listen to each other, we can have stronger outcomes.

As I am not deeply entrenched or have a deep knowledge of the farming industry, I cannot say what practical impacts the amendments of 2019 have on farmers on the ground or whether this bill will rectify all of that. I see this bill as a great opportunity—because there are obviously concerns from that sector—to sit down and have these open conversations. While not diluting the outcomes of improving water quality, we still need to support the industries this legislation impacts. A slight level of compromise is a way forward to keep everyone at the table for better outcomes for the reef. We all need to work together. It is a community approach not only within Australia but also as a world heritage. We all have to do our bit for the Great Barrier Reef. The Great Barrier Reef is not dead but

is having challenges. There are many factors. It is a very complex story rather than just one issue. It is as a collective community that we need to look after and protect the Great Barrier Reef and still live our lifestyles as we need to.

Ms PEASE: Thank you very much for coming in, Gareth. We appreciate your passion. I am interested in the comments you made with regard to compromises that need to be made with regard to the health of the World Heritage park. What compromises would they be?

Mr Phillips: I am not saying compromises in relation to the health of the Great Barrier Reef, but we need to look at getting all people involved—in this case the farming community—at the table to have those conversations about this legislation which is impacting them. 'What are we doing?' That is what I have been hearing. Everyone wants the same outcomes. We all want to improve water quality. We all want to protect the Great Barrier Reef. To what end? Farmers may have to compromise on some of the things they do, but hopefully not at the expense of livelihoods, homes, jobs and the supply chain. I am not saying that we should compromise the health of the reef. Likewise, the legislation is a good tool to give framework and guidance, but just like the reef—and what I am picking up—farming is very complex. It is not one size fits all, so we need to have an understanding of what is required from the ecological side to protect the reef and potentially from farmers, to see if we can meet somewhere that everyone can work to and move forward. That is where I am looking at compromising.

Ms PEASE: My point is that we have heard from scientists and we have read the peer reviewed reports. There has been a lot of money invested by state and federal governments which indicates that we need to do some work with regard to run-off. I am wondering what your suggestion would be. What do we do? What do we not do? We have to do something for the reef, and this is what we are doing.

Mr Phillips: We definitely need to manage water quality entering the marine park—that is a necessity—but we need industries to deliver that for us, and that is where we have to work out how we do it.

ACTING CHAIR: In terms of delivering water quality, have you had a chance to review this bill before us in terms of what it is seeking to reverse?

Mr Phillips: I reviewed the 2019 amendments. I have not reviewed—

ACTING CHAIR: You have not reviewed this bill before us now?

Mr Phillips: No.

Ms PEASE: With regard to self-regulation, you have had experience working overseas in the role you are in now?

Mr Phillips: Not as a peak body.

Ms PEASE: Are you aware of anywhere in the world where they have regulations that are mandated voluntarily so that the regulations on water controls are voluntary?

Mr Phillips: No, I am not aware of any of that because it is not in my area of expertise.

Mr MOLHOEK: I am not sure I totally agree with the acting chair's earlier comment. I do not think this legislation is seeking to wind back all of the provisions of the original legislation; it is just seeking a bit of relief. Do you have any opinion about the current legislation Katter's Australian Party has presented to the House? I heard you talk about compromise and finding a middle ground. Do you think the current regulations have gone a bit too far, or do you think we need to be a bit kinder to the farmers? What is your view?

Mr Phillips: My understanding is that this bill does not seek to reverse all of it—just to make some amendments. If I have misunderstood that I apologise, but my understanding is that it was not to eradicate the whole bill. That is why I support legislation to protect the reef. In terms of some of the suggestions that the member has put forward, I agree with the potential independent body when developing standards that farmers will need to take up. That seems logical to me. Again, I put a caveat on that. I am not a farm expert; it is just from my experience. If I was in a position where legislation was going to dictate what I was going to have to do with my farm practices or my business practices, it would be good to consult and have an independent body backing that up. Because I have not been part of the process before, I come with a limited depth of knowledge.

ACTING CHAIR: Two previous witnesses, Canegrowers and AgForce, both acknowledged the regulations were underpinned by industry standards developed in the Six Easy Steps that are incorporated into the 2019 regulation, so we are actually adopting their guidelines and framework. Do you think it is fair and reasonable that the regulations have adopted standards developed by the industry?

Mr Phillips: Yes, from what I have heard today. If that is what it has done, that is great. But like I said, there are obviously concerns. I do not want to say, 'Let's not have water quality practices.' That is not the message I got when I read the bill. The message I heard was, 'Let's find out what we can get the farmers to make it easier for them to comply.'

Mr MOLHOEK: What level of consultation have you had with your operators and members around this particular piece of legislation? Have there been any briefings or discussions with your members? Have you solicited your membership for views on the proposed changes?

Mr Phillips: No, very little. To be honest, at this time during COVID our priorities are purely 100 per cent on survival. I have spoken to some of the board members. I have been asked to speak on this and give a statement. They say, 'That's great. Water quality is important for us,' but their focus currently is on surviving and keeping their businesses alive in the current conditions. I have asked my predecessor, who has retired, but I have not yet received a response as to what he did in 2019. I have been trying to see what the uptake was on that.

ACTING CHAIR: In terms of compromise, I think it is always important when government works together with industry. AgForce has acknowledged that there has been work ongoing with the regulations to seek that point.

Mr Phillips: It was great to hear that, which is why I have sat in today—to get a deeper understanding from all sides.

Ms KING: I begin by acknowledging the very difficult period that your industry has faced and the enormous fortitude that it must take for your members to continue their businesses at this time. Our hearts go out to all of them.

Mr Phillips: Thank you.

Ms KING: I reflect on your earlier comments that water quality, water visibility and the health of our extraordinary natural assets are quite literally the livelihood and the lifeblood of your members.

Mr Phillips: The health of the reef is, definitely. One of the first businesses I was ever involved in through university was supplying fish tanks. People would say, 'You keep fish,' and I would say, 'No, I keep water and the fish live in it.' Water quality is a key component of reef health. Our reef health, as a topic, is critical. If people go out and the reef is not alive then we cannot sell them an experience. At the moment we can very comfortably say, 'Come out.' The reef has its challenges and some of them are quite significant, but it is an extremely diverse ecosystem.

Ms KING: Certainly our government recognises that there is much to do and see at the reef. Our Holiday Dollars program has acknowledged that, in particular. I refer to some of my notes on the bill before us. It seeks to remove the current legislation in its entirety, revert to the previous definition of agricultural environmentally relevant activity and reverse a whole lot of work around offences. It wants to change the framework around fertilisers. It wants to limit the periods that documents are kept. It wants to change the powers for making ERA standards. There is talk about introducing some kind of independent auditor of the science. We have heard at length about the panel of nearly 50 independent scientists who produced the peer reviewed work, which has led to nearly $18 billion going into reef water quality. On the other hand, we have heard industry bodies saying that their members just do not want to be regulated. They want to stick with the self-regulation standards that their industries have developed and they do not appreciate those self-regulation standards that they have developed being required of them as regulation. I am sorry for the long preamble, but my concern, which I am asking you to reflect upon, is that those attempts in the legislation before us and those views of industry bodies, however understandable, do not contribute to the wellbeing of our extraordinary natural assets, being the Great Barrier Reef, water—

Mr MOLHOEK: Is there a question somewhere?

Ms KING: I am asking our witness to reflect on that statement.

Mr MOLHOEK: Standing orders, Acting Chair.

Mr DAMETTO: Yes, come on.

Ms KING: Do the attempts to repeal this legislation and those views that are pro self-regulation and against government regulation contribute to or undermine the health of the reef? What is your view?

Mr Phillips: From what I am hearing today, farmers want to look after the Great Barrier Reef and it is not that they are against being regulated. I am trying to verbalise this succinctly.

Ms KING: It is difficult to follow the reasoning, isn't it?

Mr DAMETTO: It is difficult to answer your question.

Mr Phillips: As a new set of eyes on what I have been presented with and having had the opportunity to review in order to come and give a statement, there is a desire from the farming industry to protect the Great Barrier Reef and maintain their viability. In essence, that is exactly what the state government and the federal government want to do: protect the Great Barrier Reef. They are looking at how we can work together better. In terms of the amendment bill and what it is saying about repealing everything, I do not have a depth of knowledge of what has happened before. I would say that we do need a legislated tool to help us protect the Great Barrier Reef and, as far as practically possible, it has to work especially with the industry that it is regulating so that they can actually achieve that.

ACTING CHAIR: Thank you. That was a good response.

Mr DAMETTO: Gareth, thank you very much for coming along and giving evidence today. It is great to have another tourism operator or someone who has worked in the tourism space on the panel to converse with us this afternoon. Firstly, I apologise for some of the questioning and the line of questioning. It was a bit confusing, some of the stuff coming across from that side of the table. Personally, I want to ask a very simple question: when people ring you up and ask, 'How's the reef? Is it alive? Should I come and visit it?' what do you say?

Mr Phillips: I say, 'It is alive and you must definitely come and visit it. By visiting it you are actually helping to look after it.'

Mr DAMETTO: Secondly, I cannot ask for an opinion, but, when considering the health of the reef, would you say that the Cyclone Yasi event was a major contributor to the detriment of the reef 10 years ago?

Mr Phillips: It had a significant impact on the reef.

Mr DAMETTO: Would you say that the reef is growing back in those areas that were impacted?

Mr Phillips: Yes.

Mr DAMETTO: And is quite healthy?

Mr Phillips: Yes.

Mr ANDREW: Gareth, I am glad that the tourism industry loves our beautiful reef. I understand that tourism operators have taken some federal government agents to look at the reef and make assessments through the Reef 2050 Plan.

Mr Phillips: Yes. Operators have taken out scientists, both local and international, to look at the reef.

Mr ANDREW: What do they say they are seeing?

Mr Phillips: The tourism sites that we are taking them to they think are absolutely amazing and beautiful.

Mr ANDREW: They would be the most heavily used areas, the most visited, those with a lot of impact from outside?

Mr Phillips: I would not use the word 'impacted' but they are—

Mr ANDREW: Not impacted but—

ACTING CHAIR: Frequently visited.

Mr Phillips: Yes, they are frequently visited. Under our regulations we have permit conditions that we have to adhere to. Our operators work under guidelines, regulations and best practices and often we go over and above our minimum standards and our tourism sites have better ecosystems than the surroundings. We have shown that site stewardship is a very useful tool for reef health.

ACTING CHAIR: Given that you are an industry no different to the agricultural industry, do you believe that you do not need to be regulated?

Mr Phillips: No, we do need to be regulated.

Mr ANDREW: After the Reef 2050 review last year, is there any ongoing stuff for the tourism operators to comply with? Is there anything that will impact you in the future?

Mr Phillips: Not necessarily regulations in terms of environmental practices, but looking at other regulations in terms of AMSA regulations and how we operate vessels, there are pressures there that are coming in and—to use the term—there are other layers of legislation that have to be considered that are potentially coming in.

ACTING CHAIR: I would ask that same question in terms of the shipping industry: do you think they require regulation to operate within the Great Barrier Reef Marine Park?

Mr ANDREW: They already do.

ACTING CHAIR: That is what I am saying. It is about operating within regulations.

Mr Phillips: I am getting the feeling that you think I am against the regulations—

ACTING CHAIR: No, I was just—

Mr Phillips:—because you keep asking whether I want regulation.

ACTING CHAIR: I guess my question to you is: do you believe it is important for the protection of the Great Barrier Reef to have regulations in place for areas of risk to the health of the reef?

Mr Phillips: Yes, like when we have new potential legislation they have consultation, and I appeared when they did the 2019 one. If legislation comes out that is not ideal for our industry, we advocate for changes and that is what I see is happening here. That is where I am talking about the compromise. If it is kept open and transparent, you find there is less resistance and there is more inclination to have stronger outcomes. That is why I say I support legislation to do that.

Mr MOLHOEK: Gareth, how long have you been involved? I sense you have been a tourism operator or an operator prior to this role?

Mr Phillips: Yes.

Mr MOLHOEK: How long have you been engaged in working on the reef or living up there?

Mr Phillips: I have been on the reef since 2008. When I moved to Australia I landed on 11 August 2008 and I started working on the reef four weeks later, as a dishwasher.

Mr MOLHOEK: We have all this new regulation. How have things changed in the past 12 years? Are things better, worse or the same?

Mr Phillips: It is not a simple diagnosis. You cannot give it one. There are certain areas. In my first 10 years on the reef I spent 3,000 days out at sea. That was in my first 10 years in Australia. I made the joke earlier that I was surprised they gave me citizenship because I spent less time on land than I did at sea.

Mr ANDREW: There is a 200-mile limit!

Mr Phillips: I was well within that, so that is all good. What we are seeing is that some reefs have had some deterioration to a degree. Others have actually gone up. That is the complexity of the ecosystem. It is not a slight change in which way the reef faces, the currents, the sizes, the species compositions. There are many different factors. The Great Barrier Reef itself, as an ecosystem, has 70 unique bioregions. If you think of the land, there are different states. We are all Australians but we are all very different and we work together to create Australia. It is the same kind of idea on the reef. There are 70 unique bioregions. They are all comprised of almost the same building blocks but they come together in different compositions so the responses can be quite different.

I will use Cyclone Yasi as an example. There was a reef location called Oasis, off Cairns. It was absolutely obliterated. There was not a single piece of coral left on it. On the same reef, which is a small reef patch, a mile up the road there were a few overturned corals. Ten miles north of that there is a reef called Pretty Patches. To this day it is still not that pretty, but then you get to Saxon Reef and I have never seen Saxon Reef looking as amazing as it has. You have seen the stories throughout. That is the complexity when talking about reef health. I am not giving opinions—

ACTING CHAIR: No, it is interesting.

Mr Phillips: My other business, Reef Teach, involves reef education and research. A lot of our reef communications is trying to explain the complexity so that the public can understand. It is not one diagnosis. It is not talking about one certain thing. Yes, we need regulations and rules to look after this World Heritage listed Great Barrier Reef, but it is the businesses and the stakeholders on the ground—all of us—who have to do it. If it is prohibitive then we are not going to have those outcomes. Having legislation for farmers that is achievable and can get the outcomes in the environment is what we have to work towards. I have not had the time—because I have an industry that is on its knees—to dissect this legislation to the bare bones, but what I am seeing with a fresh set of eyes is definitely a willingness to improve water quality but there is anxiety about how far and what the burden is going to be for them, whether they are going to be viable and achieve this and have a livelihood.

Mr ANDREW: My way of looking at it is that the reef is as precious to you as topsoil is to the farmers.

Mr Phillips: Yes.

ACTING CHAIR: That is an interesting comparison.

Ms KING: Thanks for your reflections. It has been really interesting to hear from you. How many hundreds of millions of dollars in support for the stewardship that you show over the reef sites that you visit has your industry received from government?

Mr Phillips: I would not know. From running a lot of these vessels, a lot of our site stewardship we have done off our own businesses. You have your permit conditions and you operate within those. Then you go to standards over and above that. It is supported by having incentives. A high-standard operator within the marine park will have minimum standards to adhere to. If you get a certain level of accreditation, they give you a longer permit period. There are those kinds of incentives so operators go over and above that, but the money spent is out of our own pockets. The first bit of funding we have received is through COVID, which is the $3.2 million activation program.

Ms KING: I am sorry; I must apologise. I asked that question knowing that you have not been supported by government in particular in your stewardship that you have shown over the sites that you visit.

Mr Phillips: Recently?

Ms KING: No. The reason I am asking is that many of the industries that we have heard from today have received environmental program support and I was wondering if you were aware of that.

ACTING CHAIR: I will have to pull up there to keep to schedule. We are out of time. Thank you very much for appearing before the committee today. We are very grateful for the knowledge you have shared with regard to the reef. Thank you very much.

Mr Phillips: We appreciate your time.

ACTING CHAIR: There were no questions taken on notice so, again, thank you.

GSCHWIND, Mr Daniel, Chief Executive Officer, Queensland Tourism Industry Council

ACTING CHAIR: Good afternoon and thank you so much for being here on a Friday afternoon at four o'clock. I would love to invite you to give us a brief opening statement, after which committee members may have questions for you.

Mr Gschwind: I am here to represent the Queensland Tourism Industry Council. I have a written statement which I will read out to ensure I do not go off track. I thank the chair and the committee members for the invitation to appear here today. The Queensland Tourism Industry Council is the state's peak representative organisation. It is a not-for-profit, member owned organisation. We have an extensive membership across all sectors of the tourism and hospitality industry. We also include in our membership 13 regional tourism organisations and more than a dozen sector organisations, including the one you heard from just before me. I am here today not as a reef scientist and not as a legal expert, but I am here to speak up for an industry that depends significantly on the benefits of a healthy and sustainable Great Barrier Reef ecosystem.

As an organisation, we have actively supported and participated in numerous initiatives and projects over the last 20 years to address some of the threats to the reef and its use. We have been a founding member of the Reef and Rainforest Research Centre in Cairns which has facilitated several hundred million dollars of targeted research projects over the last 15 years including into water quality issues. I also chaired the Tourism Reef Advisory Committee of the Great Barrier Reef Marine Park Authority.

We have actively supported a range of regulatory measures in relation to the reef that affect our own industry and its operators. We have voluntary accreditation programs that incentivise best practice of tourism operators on the reef, but we recognise that regulated standards in our industry are also necessary to ensure that no individual operator can threaten the future of others. I might add that some of those regulations are quite invasive and quite costly to the operators, but there is a profound understanding in our industry amongst 'good operators' that it is indeed necessary.

The current piece of legislation that is in place now that is under discussion here was introduced and passed as one of the many measures and initiatives that seek to address one of the main threats to the future of the GBR, namely, water quality. The challenge is not new and, as far as I can tell, since 2005 Australian taxpayers have invested close to $1 billion in reef initiatives. The big share of this has been allocated to support the agricultural sector to achieve better environmental outcomes for the reef and for its catchment.

The partnerships that have been built through this and through this funding between farmers, scientists, management agencies and the community have been extremely useful and beneficial. We support this and we also support future investment. In fact, a couple of years ago we commissioned a report jointly with the Queensland Farmers' Federation which concluded that the reef maintenance budget, if we want to call it that, must be increased for the benefit of the national economy, the community and the environment.

The principal concern at this stage is succinctly summed up by the Australian government's Great Barrier Reef Marine Park's position statement on water quality of 27 October 2020 which states—

Poor water quality is a major threat to the Great Barrier Reef, particularly inshore areas. Improving the quality of water entering the Marine Park is critical and urgent.

...

The main water quality pollutants that pose a threat to the Reef are primarily from agricultural activities in the catchment ...

... additional mechanisms including regulatory tools, will help to progress beyond minimum practice standards and reduce harmful run-off to the Reef.

Numerous monitoring science efforts back up this conclusion including the Australian and Queensland governments' joint Reef Water Quality Report Card 2019. Although the report card recorded that inshore water quality improved to moderate conditions overall, 'the Wet Tropics, Burdekin and Burnett Mary regions were in poor conditions'.

This is not about blame. This is about recognising our shared aspirations and understanding that if the Great Barrier Reef thrives we all do. This is about coming together and fixing a problem that is not just threatening an ecosystem; it is threatening our industries and our future. We must deploy whatever tools we have including appropriate and enforceable regulation.

The National Environmental Science Program's Tropical Water Quality Hub—you have to excuse the long title—has just released its final reports of its four-year program. Within the outcomes there is additional detailed water quality monitoring data and other research available, offering relevant evidence of localised impacts that must be remedied. It also contains insight for research in how partnerships between the agricultural sector, managers and science can be further developed to support long-term action. We will always advocate for collaboration and partnerships in the first place, but as a community we cannot afford to ignore the need for additional measures when voluntary encouragement does not achieve what is necessary. This applies in relation to this piece of legislation.

To conclude, there is one additional consideration. Some years ago Australia was successful in having the Great Barrier Reef placed on the World Heritage register for good reason, on the basis of its outstanding universal values. Given the global prominence of the Great Barrier Reef, our national reputation has been enhanced by the leading management practices demonstrated on the reef. However, it has certainly been noted by the UNESCO World Heritage Committee and the International Union for Conservation of Nature that we have to strengthen our record on water quality and catchment management to maintain our status.

Australia has reaffirmed this commitment to 'comprehensively address the threats facing the GBR' in its state party report submitted for the World Heritage Committee meeting next month by Minister Sussan Ley. I will table some documents in relation to that—namely, the letter from the federal minister to the World Heritage Committee meeting of next month and the report. The report is 200 pages, but I have the relevant pages attached and I will quote a few things from it. In that state party report, which Australia is making on our behalf, a lot is made of the merits of our efforts on water quality, with special mention of the Queensland legislation. It is actually listed as a case study in how water quality should be managed. For my last words I quote from this report. It says—

> The Regulations complement the investments of the Australian and Queensland governments and the voluntary action being taken by many farmers, ensuring that the uptake of good practice is widespread, driving more rapid improvements in water quality.

In our view and on the basis of this evidence, we do not believe the legislation should be reversed.

ACTING CHAIR: Thank you for that presentation. If this bill were to pass, what threat would that be to World Heritage status and what impact would that have on jobs in the tourism sector?

Mr Gschwind: It would certainly—how should I put this?—compromise our current commitment to the World Heritage Committee.

ACTING CHAIR: Do you believe that would have an impact on the sector?

Mr Gschwind: It would be a negative in demonstrating our ability and capability to address the threats that the reef faces.

Mr DAMETTO: Thank you very much for coming along today and giving evidence and speaking to the proposed legislation. My first question is around the message on the current health of the Great Barrier Reef and, I should also state, the previous health of the Great Barrier Reef. How damaging to the tourism industry in Queensland is the perception that the reef is dead?

Mr Gschwind: Any perception that the reef is dead is very detrimental to our industry—absolutely—and to the community. We have made a lot of effort, over the last few years in particular, to maintain a balanced narrative by saying the reef is still the best managed reef on the planet and certainly the most exciting reef to visit on the planet. However, we have to combine that with a message of caution about how we have to address global threats including those over which we can have some control domestically.

Mr DAMETTO: You talked about global threats. That would be climate change, I imagine?

Mr Gschwind: Correct.

Mr DAMETTO: We are talking about what some may say is a perceived local threat, which is the water quality. That is what this legislation that we are talking about today addresses. We have growers out there who have been doing very well over the last 10 years or so in improving their water quality through best management practices and the Smartcane BMP program that the canegrowers have put through. There has been good take-up of that. Unfortunately, we continue to see bad report cards, especially in the Tully catchment area. If we continue to go down this pathway and in five years time we still see no increase in water quality in these areas, there may be a scenario where the department decides to change the ERA standards to the further detriment of the banana, sugar and cultivating industries in the catchment areas. At what point do you believe we will say we will get rid of agriculture and trade it off for a healthy reef?

Mr Gschwind: I cannot speculate about what may happen in the future, but I think there is good reason to believe that if the extremely strong commitment of some farmers is replicated across the entire sector we are in a good position to actually improve the water quality much more rapidly than has been the case to date. I am quite confident that we can manage this, but we have to drag all laggards along, like we do in our industry. We cannot just rely on those who voluntarily commit and do the right thing, so to speak. We have to make sure that everybody comes along. It is not dissimilar to many other rules that apply to us.

Mr DAMETTO: I think a point to acknowledge is that even if the 2019 legislation was repealed there would still be quite strong legislation to protect the Great Barrier Reef. I think we need to acknowledge today that repealing the 2019 legislation does not take us back to the Stone Age.

Mr Gschwind: No, I am not suggesting for a moment it is the Stone Age we would go back to. I am saying we have to go forwards, not backwards, in terms of direction. We have to get better and better at what we do. The state of knowledge has increased and continues to increase. We have to apply that knowledge to the operational practices of all industries including ours and agriculture.

Mr ANDREW: In 2020 you partnered with WWF in a new ecotourism partnership. Could you explain to us how that actually works?

Mr Gschwind: That is probably not our organisation. Sorry, do you mean for the accreditation program?

Mr ANDREW: Yes, that is correct.

Mr Gschwind: Ecotourism has for some considerable time run a tourism operators accreditation standard, which is quite onerous and quite in-depth. They have done this off their own bat. Meanwhile, we have, on a national basis, developed a tourism operator quality framework, which is more about business practices. We have this year combined those two to make them compatible and allow access and entry and certification from either direction. It is meant to achieve two things: to promote the high environmental standards that ecotourism 'imposes' on its operators, popularised more broadly, but also to apply and bring into play the general business practices and quality efforts for the industry. We just want to combine those things.

We have been very supportive of ecotourism and its certification program for many years. In fact, we were instrumental in adopting those standards for the licensing that the Great Barrier Reef Marine Park Authority oversees. We were successful in convincing GBRMPA of the merits of that program. The high-standard operators get rewarded by longer permits. That is an example where regulation and voluntary programs can start to overlap and achieve more, but it needs bookends: it needs the regulation and the monetary side.

ACTING CHAIR: It sounds very similar to what we just heard from the banana growers in terms of consumer driven environmental standards. Whether it be a tourism product or a banana, there is an expectation from customers that they want to know—

Mr DAMETTO: I agree. Prior to 2019 we had voluntary BMPs and existing regulation marrying up together.

ACTING CHAIR: As Daniel has alluded to, our knowledge base has changed significantly from 2009 and what we know about the Great Barrier Reef.

Mr DAMETTO: It has definitely changed in the last 12 months too.

Ms KING: Can you reflect on how important you think the World Heritage status or perhaps even the World Heritage brand is when it comes to attracting international tourists to the reef, especially from new tourism markets that have not necessarily had the economic ability to consider travel to Australia in the past?

Mr Gschwind: The Great Barrier Reef is probably the best known thing that Australia has globally—maybe kangaroos.

Mr ANDREW: Ayers Rock.

Mr Gschwind: That is probably line ball, I would say. Be that as it may, the Barrier Reef has enormous profile internationally. It is not just the reef itself; it is also what we do with it. To have that tick of approval from the World Heritage Committee—to be inscribed on the register—is extremely important. We probably have not made enough of it here in Australia and people may not be aware so much. You can go to many World Heritage sites internationally—not that we can at the moment—where they are very prominently displaying their credentials and making a big song and dance about it. We probably should do a bit more here.

I can assure you that many people globally pay a lot of attention to World Heritage registration and status and visit places because of that. We are a long way from things here sometimes and we might take a jaded view of some of those international organisations and what they do and think, 'Does it matter?' The reality is that we are part of it. Australia is on the World Heritage Committee at the moment. We often talk about Australia punching above its weight. We are quite happy to take the accolades when we rely on the support of an international organisation. I think in this case we also should engage with that forum and view that opportunity in a very positive way. They give us good guidance sometimes.

Ms KING: We have heard from other members about their concerns about the reef being incorrectly portrayed as not vibrant. What message would it send to those tourism markets if the reef were placed on the World Heritage endangered list?

Mr Gschwind: It would be catastrophic, really. There is no other word for it. It would also affect Australia's overall credibility on some of these issues. There is no doubt about it. It is very important.

Ms PEASE: Would there be an impact on tourism operators on the reef if it were on the endangered list? For example, would we have to change the way that we visit the reef, market the reef and engage with the reef?

Mr Gschwind: We would have to make even more effort in balancing the message, if you like. We have already. Gareth's organisation and marketing bodies have spent a lot of time and effort over the last few years trying to redress perception issues. It would absolutely cause us grief.

Ms PEASE: Talking again about regulations, your industry is regulated. You have admitted that at times it is not always easy. As a result of that, you have great operators doing the right thing. What message could we give to the agricultural industry—to canegrowers and banana growers—to make them feel more comfortable about becoming regulated—that the sky is not going to fall in and that life will go on?

Mr Gschwind: I think it is important to build on existing partnerships. I am very aware that there are some very good partnerships between some of the science programs and between some individual farmers. Incredible effort is being made on the farming side. It is that kind of peer education. For our industry—and it would be the same in the agricultural sector—it is not about somebody from Brisbane coming and telling people what to do, because they do this every day. Sometimes you want the support and advocacy of their peers. Work with those who have successfully changed their practices or improved their practices and then get them to tell others about it or get them to demonstrate why they are making more money now than before and why they have less grief and why they have better outcomes. I am just saying that that is what has happened in our industry in many cases. If that kind of model of partnership and education could be replicated, I think that would be very constructive.

Ms PEASE: Thank you very much. Thank you for your great work, Daniel.

Mr DAMETTO: A little while ago you touched on people having a jaded opinion of big organisations and large bodies that oversee things in our country—a global organisation like UNESCO. We have a similar problem in North Queensland. The legislation that came in in 2019 mostly impacts the reef catchment areas. I have a feeling that people in Brisbane do not completely understand what is going on on the ground up there. Have you spent any time on a cane farm or have you had a look at how BMPs have been going?

Mr Gschwind: This goes back a while now. There were several iterations of the reef plan. Yes, we did have a lot of engagement with canefarmers. I occasionally talk about some of the experiences which were quite enlightening for me too. I am not here to pretend that I understand what it is like to run a cane farm at all. That process at the time—it is some years back now—I think at least gave me a better appreciation of what confronts them.

Mr DAMETTO: How long ago was that, if you do not mind me asking?

Mr Gschwind: I knew you were going to ask me that. I do not want to give a date because I cannot remember. There were two iterations of the support program that went to the agricultural sector. We were involved at least in discussions on both occasions.

ACTING CHAIR: It was both industries. It is good to see that there was that engagement of the tourism sector with the agricultural sector in looking at—

Mr Gschwind: Yes. We have, and have had, an active involvement in the National Environmental Science Program tropical water quality and now coastal and marine programs in Cairns. I am a member of the steering group. A good portion of the projects that were funded through that are all about the agricultural sector.

Mr DAMETTO: What was the conversation on the ground on the farms when you talked about further regulation of their industry? Were they positive or negative?

Mr Gschwind: Some were cautiously optimistic that they could work with it, I have to say. Rarely does a business rush towards being regulated more tightly. That rarely happens. That does not mean that they are always against it or cannot see the merits of it. Do not ask me to quote a particular farm, but in some cases it is the good operators protecting themselves from the damage those who do not do the right thing do to their own reputation. It is not as though businesses are always against regulation. In fact, I can assure you that in our industry sometimes the industry is calling for more regulation of those who do not toe the line. I do not think you can universally say that business is against regulation because that is really not true, I have to say.

Mr DAMETTO: I note that you are against our bill that is before the House—and that is fine. What are your thoughts, though, on an independent regulator to oversee regulation in the industry and give advice to the minister?

Mr Gschwind: I do not feel that I am in a position to call that. I do not understand sufficiently what the purpose of it would be, to be honest with you. I do not want to make a statement one way or the other. I do not understand the merits of it, to be honest with you.

ACTING CHAIR: Are there any further questions? I seek leave of the committee to table Daniel's letter and supplementary state of the reef report. Leave is granted.

Mr Gschwind: As I said, the report itself is 200 pages long. In the interests of the environment, I did not print the whole thing.

Mr DAMETTO: I appreciate you not reading it all out.

ACTING CHAIR: There being no further questions, that concludes today's public hearing. Thank you very much, Daniel. Your insights are incredible and we are deeply grateful for all of the work you are doing in the tourism sector in what has to have been a catastrophe on the grandest scale for the sector with COVID-19. We appreciate the challenges and look forward to the day when our international borders are open again and travel is full blown.

Mr Gschwind: Absolutely.

ACTING CHAIR: Thank you to all of the witnesses who have participated today. For any questions taken on notice, we would like responses provided to the secretariat by close of business on Friday, 18 June. The proof transcript of today's hearing will be available on our webpage as soon as it is completed. Thank you to the members. Thank you to the Hansard reporters. I declare this public hearing closed.

The committee adjourned at 4.27 pm.