CANEGROWERS

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Committee Secretary
Health and Environment Committee
Parliament House
George Street
BRISBANE QLD 4000

By email: hec@parliament.qld.gov.au

To whom it may concern

Re: Environmental and Other Legislation (Reversal of Great Barrier Reef Protection Measures) Amendment Bill 2021

Bundaberg CANGROWERS wishes to support MP Nick Dametto in the pursuit of passing the Environmental and Other Legislation (Reversal of the Great Barrier Reef Protection measures) Amendment Bill 2021. This bill aims to reverse the Environmental Protection (Great Barrier Reef Protection Measures) and Other Legislation Amendment Bill 2019 that included the Burnett Mary region in the "reef regulation" process for the first time.

The inclusion of the Burnett Mary in the broader reef regulations was a flawed decision based on flawed information. To call the meetings and submissions to the proposed documents such as the Great Barrier Reef Water Science Taskforce Report 2016, the Regulatory Impact Statement for Broadening and Enhancing Reef Protection Regulations consultation is an insult to all those that provided information and submissions from the agriculture sector. Very little of the information provided by the Agricultural sector was taken on board and in some cases it seemed as if this sector was deliberately misled or information provided to correct errors was ignored. Examples of the poor information used in the consultation process are provided in Appendix 1.

There appears to be a recent focus on the inshore reefs and seagrasses after a concerted push back from researchers and industry about the impact from farms on the Great Barrier Reef, in particular the 97% of coral on the mid and outer reef. When the regulations were first enacted in 2009 the focus was on the coral of the Great Barrier Reef. There was a large focus on the research that showed a 50 percent decline in hard coral cover due to cyclones, Crown of Thorns starfish (CoTs) and bleaching from 1985 until 2012 from D'eath etal 2012, which focused on the mid and outer reef areas.[1]

[1] (PDF) The 27-year decline of coral cover on the Great Barrier Reef and its causes (researchgate.net)

There was little focus on the inshore corals and seagrasses as they were not part of the regular monitoring from the Australian Institute of Marine Science (AIMS) that was used in this research paper to show the loss of coral. Of the research papers on the inner reefs, the one from Jones and Berkelmans 2014, showed that it was not any pollutants in flood waters that killed the inshore coral reef but a lack of salinity from the fresh water.[2]

The Burnett Mary region should be excluded from the reef regulations as supported by this legislation amendment bill due to the following reasons:

1. The majority of the Burnett Mary River catchments are outside the Great Barrier Reef Marine Park and it is 70km from the mouth of the Burnett River to Lady Elliott Island which is the most southern island/ coral cay of the Great Barrier Reef Marine Park
2. The ocean currents from Mackay south, based on Bureau of Meteorology current forecasting models show that for the majority of the year the ocean currents, where the reefs and seagrasses are present, flow south. Therefore any nutrients or sediments flow south with the currents and not north to where the Great Barrier Reef is located to the north of the Burnett and Mary rivers.[3]
3. That there has been no monitoring of the inshore coral reefs around the Burnett Mary region since 2013 when it was reported that there was significant death of the inshore coral reefs around Hervey Bay due to the floods of 2013.[4] Therefore there has been no formal monitoring of the recovery of these corals until some recent studies began in 2020. Local diving groups indicate the local inshore corals to be some of the best inshore hard and soft coral in Queensland. The study that began in 2020 by the Burnett Mary Regional Group who funded the Gidarjil Sea Rangers to begin monitoring these inshore reef areas using the AIMS coral monitoring method. To date, there are no reported results from this new monitoring work.
4. There is no marine water quality monitoring in the Burnett Mary region, with the nearest marine monitoring station at North Keppel Island which is 235 kilometres to the north.
5. That based on the Water Quality Target information[5] for the five (5) sub catchments, from north to south, of the Burnett Mary Region the relative priority for Dissolved Inorganic Nitrogen (DIN) and Sediment is as follows:

Sub Catchment	DIN	Sediment
Baffle	Minimal	Minimal
Kolan	Low	Minimal
Burnett	Low	Moderate
Burrum	Low	Low
Mary	Moderate	High

Notably the furtherest south river catchment has the highest risk in the region and is approximately 150 kilometres from Lady Elliott Island. Compared to the other reef Natural Resource Management regions, the Burnett Mary gets the least amount of funding from the Great Barrier Reef Foundation due to the lowest risk profile.

[2] Flood Impacts in Keppel Bay, Southern Great Barrier Reef in the Aftermath of Cyclonic Rainfall (nih.gov)
[3] http://www.bom.gov.au/oceanography/forecasts/idyoc300.shtml?region=SEQLD&forecast=Current
[4] https://espace.library.uq.edu.au/view/UQ:372967/s42695581_phd_final.pdf
[5] https://espace.library.uq.edu.au/view/UQ:372967/s42695581_phd_final.pdfhttps://espace.library.uq.edu.au/view/UQ:372967/s42695581_phd_final.pdf

6. It should be acknowledged that the low funding levels provided to the Burnett Mary region is the reason that in the reef report card the Burnett Mary region has low numbers of growers recorded as taking up the farming practices to minimise runoff water entering the reef lagoon. What is not recognised is the high level of innovation and adoption of practices by growers in the Burnett Mary region to minimise runoff:
    - Over 70 percent of all farm runoff goes through at least one tail water dam before entering a waterway. The majority of these dams were built before 2004.
    - Six Easy Steps and nutrient management workshops were developed in Bundaberg to assist growers in understanding their soil tests
    - The Bundaberg region has been the leader in irrigation program development. Watersense was developed with the assistance of the Bundaberg region. The network of soil moisture probes and weather stations with central access via a central website and available to all growers was developed by and is still maintained in Bundaberg. These soil moisture monitoring probes are used to assist growers in determining when to irrigate to minimise runoff and deep drainage. The weather stations provide localised records for temperature, humidity, wind speed and direction to assist in completing records for chemical application
    - A soil test survey of the district has meant that the 100 leading growers have received a nutrient management plan in 2013, 2016 and 2019
7. Research[6] shows that the Crown of Thorns Starfish (CoTs) outbreaks in the southern region at the Swains Reefs come from oceanic nutrient upwelling and not from land based runoff. The Swains Reefs are over 250 kilometres north of the Burnett River with the main oceanic currents flowing south.

As demonstrated by the examples above regulations are not required in the Burnett Mary Region and as such the Environmental and Other Legislation (Reversal of the Great Barrier Reef Protection measures) Amendment Bill 2021 should be passed.

Should you have any specific questions please contact myself or Matt Leighton.

Yours faithfully

Dale Holliss
Manager

[6] Origins and Implications of a Primary Crown-of-Thorns Starfish Outbreak in the Southern Great Barrier Reef (hindawi.com)

Appendix 1

An example of being misled is the Final Great Barrier Reef Water Science Taskforce Report no way resembled Draft Great Barrier Reef Water Science Taskforce Report, in which all industry and interested persons provided submissions. An example of this is Figure 9 on Page 40 which was used to demonstrate the excess nitrogen being applied to sugar cane crops was not included in the Draft version of the document where examples of the over application could be explained or disputed. An example of this is the lowest district yield from the Wet Tropics in Figure 9 relates to the aftermath of Severe Tropical Cyclone Yasi. Growers fertilised their crops in October to December 2010 and expected a normal wet season however in January 2011 Severe Tropical Cyclone Yasi came and destroyed many crops in the Wet Tropics. Following on from Yasi there was significant cloud and rainfall which reduced the ability of the cane to recover from the cyclone damage such that the sugar cane yields were extremely low at around 55 tonnes per hectare. Yet despite this it is deemed that growers in that region over fertilised and had "excess nitrogen".

The Regulatory Impact Statement for the Burnett Mary region began with using the QLUMP data for cane growing area which was listed at 86,000 hectares despite that total never being achieved as a harvested area. Much of this stems from the multi-crop integrated farming system that dominated the southern region where farmers can grow cane, small crops, tree crops and produce forage crops in the region. The largest harvested area in the Burnett Mary is approximately 56,000 hectares and by adding a generous 20 percent fallow it only equates to 70,000 hectares of cane land. The figures in 2009 from the CANEGROWRS Annual report 2010/11 show that 41,083 hectares were harvested and if the same 20 percent fallow is used it totals 51,350 hectares. So the QLUMP figures were an over estimation of land area by over 34,000 hectares which equated to 2.77 million tonnes of cane, which is another two (2) sugar mills based on the size of the southern sugar mills.

The RIS also stated on page 43 Table 11 it would be profitable to make the change from "D" class farming practices to "B" class farming practices in the Burnett Mary for a 200 hectare farm and that farm size is a typical farm in the region. These numbers were from an Alluvium report in 2016. When looking at the Bundaberg Mill area, which is the largest mill area of the three (3) mills in the Burnett Mary region, the median tonnes, in 2014 was 2,281 tonnes or approximately 35 hectares in size and in 2015 the median was 2,818 tonnes or approximately 40 hectares. These are a long way away from the typical farm of 200 hectares. To put the 200 hectares into perspective it equates to about 13,500 tonnes plus fallow and in 2014 there were only 11 growers out of 235 who grew this many tonnes and in 2015, 14 growers out of 252 growers. This shows that even at the time of writing the RIS used information that was poorly researched by Alluvium.

To put an updated set of numbers to show the loss of cane in the Burnett region, the Bundaberg mill area in 2015 harvested 19,700 hectares and in 2020 only harvested 13,700 hectares. This is a loss of over 6,000 hectares of cane in five (5) years which is approximately 480,000 tonnes of cane. There are only 161 growers left in 2021 with a median crop of 1,813 tonnes which is 32 hectares total farm size. There are eight (8) growers with in excess of 200 hectares. This would hardly indicate that the 200 hectare farm was typical back in 2014 and 2015 and even less so in 2021.