Statement by:

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to the Public Hearing (Friday 13 April 2018) before the State Development, Natural Resources and Agricultural Industry Development Committee on the Vegetation Management and Other Legislation Amendment Bill 2018.

1. The Great Barrier Reef (GBR) is in poor condition and the status of corals, seagrass, dugongs, green turtles continues to decline either across the GBR or in large regional areas (GBRMPA 2014). The prime causes of these declines are climate change and terrestrial pollutant runoff as noted in the 2017 Scientific Consensus Statement (SCS) - LAND USE IMPACTS ON GREAT BARRIER REEF WATER QUALITY AND ECOSYSTEM CONDITION (Waterhouse et al. 2017a,b). The conclusions of the SCS are as follows:

Key Great Barrier Reef ecosystems continue to be in poor condition. This is largely due to the collective impact of land runoff associated with past and ongoing catchment development, coastal development activities, extreme weather events and climate change impacts such as the 2016 and 2017 coral bleaching events.

Current initiatives will not meet the water quality targets. To accelerate the change in on-ground management, improvements to governance, program design, delivery and evaluation systems are urgently needed. This will require greater incorporation of social and economic factors, better targeting and prioritisation, exploration of alternative management options and increased support and resources.

2. One of the main contributors to coral and seagrass decline is discharge of fine sediment from the catchments of the GBR. Fine sediment loads have increased many fold on many GBR catchments since the development of the catchments for agriculture over the last 150 years (Kroon et al. 2012; Bartley et al. 2017). The primary sources of this increased fine sediment loads are from gully erosion, streambank erosion and hillslope erosion all associated with reduced vegetation cover, both of grass and trees (Bartley et al. 2017).

3. Fine sediment has severe effects on corals through loss of light due to increased water turbidity where corals depend on adequate light for their food. Similarly seagrass also depends on adequate light to grow. Discharge of fine sediments from GBR rivers causes yearlong reductions in light across large parts of the GBR (Fabricius et al. 2016). Fine sediment also impacts corals though sedimentation leading to coral mortality (Schaffelke et al. 2017).

4. Currently approximately $50 million per year are being provided by the Australian and Queensland governments (Reef Plan) to reduce fine sediment loads discharged to the GBR. Some progress has been made over the period 2009 - 2016 as documented in the joint government Report Card (Australian and Queensland Governments 2017) in reducing loads, although nowhere near enough to achieve the targets set by government (Brodie et al. 2017; Eberhard et al. 2017). In the Report Card progress made though improved management practices in agriculture was rated as "poor".

5. The legislation being proposed will aim to reduce the amount of vegetation removal in Queensland, and in particular for the GBR, in the GBR catchment. This will have a positive effect on reducing erosion and hence reducing fine sediment loads to the GBR. If the legislation is not effected then we can expect, with further clearing, increased fine sediment loads risking undoing the spending on reducing erosion through Reef Plan.

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