The new Great Barrier Reef pollution plan is better, but still not good enough

September 1 2017, by Jon Brodie, Alana Grech And Laurence Mccook

The draft water quality improvement plan, released by the federal and Queensland governments this week, aims to reduce the pollution flowing from water catchments to the Great Barrier Reef over the next five years.

It is part of the overarching Reef 2050 Long-Term Sustainability Plan to protect and manage the reef until mid-century.

Water quality is one of the biggest threats to the reef's health, but the new guidelines still fall short of what's required, given the available scientific evidence.

The draft plan, which is open for comment until October, presents several important and commendable advances in the management of water quality on the Great Barrier Reef. It addresses all land-based sources of water pollution (agricultural, urban, public lands and industrial) and includes social, cultural and economic values for the first time.

The principal sources of pollution are nitrogen loss from fertiliser use on sugar cane lands, fine sediment loss from erosion on grazing lands, and pesticide losses from cropping lands. These are all major risk factors for the Great Barrier Reef.

The draft plan also presents updated water quality targets that call for reductions in run-off nutrients and fine sediments by 2025. Each of the

35 catchments that feeds onto the reef has its own individual set of targets, thus helping to prioritise pollution-reduction measures across a region almost as large as Sweden.

The reef's still suffering

The Great Barrier Reef suffered coral bleaching and death over vast areas in 2016, and again this year. The 2017 Scientific Consensus Statement, released with the draft water quality plan (and on which one of us, Jon Brodie, was an author), reports:

"Key Great Barrier Reef ecosystems continue to be in poor condition. This is largely due to the collective impact of land run-off 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."

Stronger action on the local and regional causes of coral death are seen to be essential for recovery at locations where poor water quality is a major cause of reef decline. These areas include mid-shelf reefs in the Wet Tropics region damaged by crown of thorns starfish, and inner-shelf reefs where turbid waters stop light reaching coral and seagrass. Human-driven threats, especially land-based pollution, must be effectively managed to reduce the impacts on the Great Barrier Reef.

But although the draft plan provides improved targets and a framework for reducing land-based pollution, it still doesn't reflect the severity of the situation. The 2017 Scientific Consensus Statement reports that "current initiatives will not meet the water quality targets" by 2025.

This is because the draft plan does not provide any major new funding, legislation or other initiatives to drive down land-based pollution any further. As the statement explains:

"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."

The draft plan calls on farmers to go "beyond minimum standards" for practices such as fertiliser use in sugar cane, and minimum pasture cover in cattle grazing lands. But even the minimum standards are unlikely to be widely adopted unless governments implement existing legislation to enforce the current standards.

The draft plan is also silent on the impact of land clearing on water quality, and the conversion of grazing land to intensively farmed crops such as sugar cane, as proposed in the White Paper on Developing Northern Australia.

The federal and Queensland governments have committed A$2 billion over ten years to protect the Great Barrier Reef. Under the draft plan, about half of this (A$100 million a year) will be spent on water quality management. This is not an increase in resourcing, but rather the same level of funding that has been provided for the past seven years.

More than loose change

There is a very strong business case for major increases in funding to protect the Great Barrier Reef. Even with conservative assumptions, the economics firm Jacobs has estimated that protecting the industries that depend on the reef will require A$830 million in annual funding – more than four times the current level.

The draft water quality plan acknowledges the need for a "step change" in reef management, and to "accelerate our collective efforts to improve

the land use practices of everyone living and working in the catchments adjacent to the Reef".

This need is echoed in many other reports, both government and scientific. For example, the 2017 Scientific Consensus Statement makes several wide-ranging recommendations.

One of them is to make better use of existing legislation and policies, including both voluntary and regulatory approaches, to improve water quality standards.

This recommendation applies to both Commonwealth and Queensland laws. These include the federal Great Barrier Reef Marine Park Act 1975, which restricts or bans any activities that "may pollute water in a manner harmful to animals and plants in the Marine Park", and the Environment Protection and Biodiversity Conservation Act 1999, which prohibits any action, inside or outside the marine park, that affects the Great Barrier Reef's World Heritage values.

Another recommendation is to rethink existing land-use plans. For instance, even the best practice in sugar cane farming is inconsistent with the nitrogen fertiliser run-off limits needed to meet water quality guidelines. One option is to shift to less intensive land uses such as grazing in the Wet Tropics region – a priority area for nitrate fertiliser management because of its link to crown of thorns starfish outbreaks. This option is being explored in a NESP project.

These changes would require significantly increased funding to support catchment and coastal management and to meet the draft plan's targets. Government commitment to this level of management is essential to support the resilience of the Great Barrier Reef to climate change.

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