06 September, 2002

Great Barrier Reef Study
Productivity Commission
Locked Bag 2, Collins St East
MELBOURNE 8003

Re: Comments on Issues Paper "Industries in the Great Barrier Reef Catchment and Measures to Address Declining Water Quality"

We welcome the opportunity to comment on the discussion paper that you have prepared.

In your terms of reference you omitted to mention specifically Integrated Catchment Management (ICM) groups as one of the groups with whom you would consult. We feel this is a significant oversight as ICM provides an amalgam of people with deep interests in catchment management and sustainable resource use.

We also note in the pre-amble your list of industries impacting on the GBR does not include dairy and cropping which are both important land uses in the Johnstone catchment.

Matters on which the Commission seeks comment and information

Q1 The current concern is the environmental effects of land based activities upon the Great Barrier Reef. We therefore list some of the problems known to exist in the Johnstone catchment that may impinge on the reef:

- Degradation of first and second order streams
- Loss and degradation of freshwater wetlands
- Sediment, nutrient and pesticide transport from land to water
- River bank instability
- A plethora of invasive weeds e.g. hymenacne, pond apple, tobacco weed, lantana, para grass, assorted bamboo etc.
- Feral animals: most notably pigs and the fish Tilapia

These are the issues that need to be addressed as the priority!

It is not true that if all the land factors that impact the Great Barrier Reef were to cease then the catchment would be environmentally satisfactory. **It is true** that if the catchment were environmentally satisfactory, deleterious inputs in the Great Barrier Reef would cease eventually.

The preoccupation/obsession with the export of sediments and nutrient into the Great Barrier Reef lagoon from the Johnstone and other catchments is a diversion of focus from the real issues at hand.

To suppose that the total elimination of sediment transport from land to stream would result in a reduction in sediment transport at the estuary is erroneous and unachievable in a decade. **In fact, stream remediation and the consequent remobilisation of trapped sediments would temporarily have the opposite effect. There is much fine sediment stored in the first order and second order streams of the Johnstone catchment.**

End of river targets are therefore inappropriate. In addition the end of river targets were put together hastily and there is a great deal of concern that these targets will form a defining document although they are only an indication at best.

There is considerable on-going research into land and water usage and the health of the GBR. The question asked does not reflect the extent of the work that has been done. We know that land-use management regimes have to change. However, many practices have changed and have delivered beneficial effects both on land and (ultimately) the GBR. We refer to green cane harvesting and trash retention in sugarcane; reduced runoff from dairy pastures; improved water-use-efficiency in irrigation in the upper catchment; riparian rehabilitation and generally better management. The downstream benefits of improvement will not be delivered for a generation so one cannot expect to see immediate results.

Q2 Are there useful examples which shed light on the effects and the extent of the relationship between land use and water quality? There certainly is. A simple geographical analysis of the plumes for the Johnstone River shows that the plume impacts on approximately 3 ha of hard corals, which represents, as a proportion of inshore and fringing reefs of:

0.0000065 of total GBR
0.00052 of GBR from Hinchinbrook to Port Douglas (Wet Tropics)

The deleterious impact of the plume on seagrass beds and benthic communities is at best uncertain. In any event, these impacts would need to be balanced with the impact of continuing and successful fishing activity.

There is no science that claims serious impact on the offshore reefs which north Queensland residents and tourist operators refer to as “The Reef”.

The scale of impact has to be in context of any socio-economic activity you may prescribe.

As outlined above there is a considerable lag time between land action and reaction in the main river systems.

There is a staggering amount of sediment in the streams and rivers. Some of this sediment is trapped, frequently by Para grass, in a multiplicity of first and second order streams. The remainder is in the form of point and longitudinal bars, some of which are very large, containing tens of thousands of cubic metres each. This sediment load is the product of decades of past poor practices and is probably in the millions of tonnes range in the whole of the river. It is beyond dispute that even if no further sediment was to enter the river system it would take a long time, probably many decades before above-normal sediment flux from the river to the sea ceased. It follows therefore that the amount(s) of sediments passing annually at the mouth of the river has little or any relationship to the rate of new sedimentation into the river system at during that year.

There have been major corrections to land use management in much of the sugarcane areas in the **last decade;** but the measurable benefits in sediment and consequent nutrient transport will barely be evident at the catchment mouth in the **next** decade or possibly several decades.

Q3 No special comments

Q4 We agree that the Commission should undertake a study of a few catchments to highlight important regional and local issues. We would like to recommend that the Johnstone River catchment be considered as a serious contender. Our ICM was set up as the pilot study for ICM in Queensland. We have been in operation for 10 years. The Group has an extensive library of reports of work done in the catchment on sustainable resource management. There is also a wide variety of industries represented.

Q5, Q6 and Q7 We have no particular expertise in these matters and have no special comments to offer

Q8 and Q9 The availability of data on the natural extent and the socio-economic value of recreational fishing are abysmal. However, it is simple fact that:

- Recreational fishing opportunities are a significant component of quality of life for residents of the region
- Recreational fishing opportunities are recognised as a key component in the attractions offered in the tourism market and socio-economic benefits that may arise from an under-developed market in the Johnstone catchment.

One would expect that Australian Bureau of Statistics data on the value of recreational fishing on a sub-regional basis would be available but they are not visible at a sub-regional level. There is anecdotal evidence that recreational fishing ranks economically with other industries. There is great potential for expansion of recreational fishing. Certainly background capital values e.g. real estate values in the lower Johnstone Basin are very dependent on the availability of recreational fishing.

Q10 The super wet tropics centred on Innisfail and including much of the Johnstone catchment are unique in the whole country and in the world as it is the only super-wet belt in an industrialized country. Its climate and geography dictate that a whole range of special considerations apply with respect to water quality, water discharge and land use management. Your Far-North area is bigger than the state of Victoria but is many times more diverse.

Please be aware that the Savannah country of Cape York Peninsula in no way at all equates with the super wet belt although both are lumped together as Far North.

Q11 to 14 The economic importance of the main industries and potential industries of this catchment are intrinsically dependent upon short to medium term political decisions and other external factors like world trade. We suggest you e-mail King Solomon for answers to these questions.

Q15 The main industries have developed farm management practices that have had the following effects in the catchment:

- Changed vegetation cover
- Added artificial nutrients and chemicals
- Removed water from streams to supply irrigation water
- Eliminated and/or drainage of very significant area of freshwater wetland

Q16 and 17 The fundamental industries of the catchment acknowledge that best management approaches should be implemented. Best Management Practices (BMP) have been developed for all major industries of our catchment and this has included a major project engaging cane farmers to write their own BMP.

In our experience the only successful incentives resulting in adoption of BMP are those that can obviously be linked to an economic advantage on farm e.g. the adoption of green cane trash blanketing on cane farms. More importantly the most serious dis-incentive that has emerged in these catchments is the dramatic economic downturn for the major primary industries, sugarcane and dairy, which results in a low priority ranking for efforts in the environmental sphere.

Key meaningful incentives resulting in the wide adoption of BMP are, in our opinion, largely undeveloped.

Q18 – 21 The issue of the quality of the water discharging from wet-tropic catchments are essentially:

- Very complex
- Extremely costly to alter
- Not achievable in the short or medium term

The solutions to improvement to water quality are unfortunately most often seen in simplistic terms by administrators, some of the scientific community and politicians. The setting of prescribed end-of-river targets is exactly such an example. Furthermore it is our contention that the cost of bio-remediation in our catchments needs to be funded by the broadest community base for the following reasons:

- The economic imperatives adopted by the industries are driven by market expectations of the broad community (e.g. economic rationalism)
- Consumers expect to pay the least amount for any commodity i.e. highest quality food at the lowest possible prices
- The Great Barrier Reef is a national icon and its protection and maintenance is a national responsibility and not simply the responsibility of the adjacent communities.

In the end in its most simple terms, the protection of the Great Barrier Reef and the environment that drains into it can only be paid for by a national consumer or environmental levy

As already pointed out, the super-wet tropics catchments are unique. An aspect of this is that they are first class agricultural areas. Whilst they have their own set of complexities these do not include problems of salinity and severe drought. Long term, these areas provide the basis for a sustainable agriculture.