

Industries in the Great Barrier Reef Catchment and Measures to Address Declining Water Quality

RESPONSES TO QUESTIONS

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This submission will deal only with the area relevant to the Alliance to Save Hinchinbrook (ASH). Please see map attached as Appendix A, which also indicates one of the ways in which it is valued - as a dugong habitat – within the Great Barrier Reef World Heritage Area.

ASH representatives Margaret Thorsborne and Margaret Moorhouse attended the presentation by Andrew Dolling and Greg Murtough in Townsville.

We were disappointed at having to share interview time with Sunfish and with their representative's reactions to our representations, and the Sunfish representative's interactions during that interview indicated that he too found the arrangement unsatisfactory. Naturally, a conservation group and a fishing lobby group will be diametrically opposed on some issues. Our values and ethical positions are quite different, although we may appear to agree on some issues such as coastal water quality. We were disappointed that we had to steer our way through argumentation with Sunfish rather than get on with our representations.

Nature conservation is for its own sake, not just for the good of humankind, and for nature to evolve as it will; whereas fishery conservation is about extraction and modification of the environment to serve the maintenance and enhancement of selected fish species for people to eat or run down for "fun". The unthinking barbarity applied to fish species is unacceptable in terrestrial species: eating the flesh of terrestrial species in our culture is bound in with legislation about humane treatment of the animals going to slaughter. We do not kill land meat animals by drowning, nor drown them for fun, yet this is what we do to fish – a terrestrial animal's death by drowning, and that of a fish flapping and gasping out of the water, is suffocation in both cases.

The Australian community generally does not generally tolerate the hunting down of terrestrial native species (wallabies, emus, wombats) for fun, and the hunting of wild birds is on its way out, yet so-called "sport" fishing is still rampant in Australia – and you can count the money it makes. But these are not really matters to be quantified; they are decisions to be made on a moral basis.

ASH does not accept the Sunfish position of "one-out all-out". This is not a game. ASH is happy to see appropriate (intrinsic-values) recreation in the GBRWHA and Hinchinbrook region, provided that such activities do not in themselves cause damage. Fishing is an extractive activity, fish are treated inhumanely in most forms of fishing, no thought is taken of the ecological impacts, only of keeping up the stocks of target fish; some forms of fishing are competitive and encourage behaviour that is inappropriate within a WHA. Activities such as snorkelling and diving can also cause damage, but not as an intrinsic part of the activity: they can be carried out with minimal impact.

If zoning the Hinchinbrook region "green" (no extraction) is the only way to ensure the survival of the dugongs (because fishing boats will not want to enter the area) then

that is what MUST be done. How do you measure what the dugong population is worth? ASH members don't have to: we accept that some of our cherished behaviours must be given up to ensure the best achievement of the best goals – these are ethical or moral decisions. “Cultural” behaviours change in time and always have – we must continually look towards lifting our game and reducing our impact on the earth's environment generally, and especially in protected areas.

As a result of the presentation and our interview we felt quite despairing that anything we could say would make any difference to the way that the bean counters are setting about measuring the dollar potential of the natural environment – or rather, of its immediate utility to humankind. It is true that measures can be devised to evaluate some, but not all, aspects of the natural environment; and that the longer the time frame the closer the anthropocentric position approaches the ecocentric. Unfortunately the time frame of politicians is short and the memory of communities not much longer. The day-to-day experiences of so many individuals overwhelms their untutored capacity to recall the detail of earlier years in all its sharpness and without the distortion of emotional investment in its changed form. The new generation has no idea of the *quality*, the unmeasurable value, of what has been lost during their parents' time. A degraded (grossly simplified) or reconstructed natural area may seem like a wonder to today's generations. Apart from the natural losses inherent in that process successive downgradings impoverish humankind without humankind realising it has happened.

Our despair relates to a value that in itself has presumably not been evaluated but simply taken for granted by those for whom counting is so obviously the *raison-d'être*: counting itself as the sole measure of life activities.

We spoke of the wilderness values of Hinchinbrook Island, and of the famous Thorsborne Track, only to be asked “how long is the track?” and “how many people walk it each year?” The whole point of wilderness is not “How Many” and not even “how few” – the wilderness perception is that there is *no-one else about* and *no-one might ever have been about* as you walk the track. This is not a quantifiable experience. You can measure how large is a wilderness area and how much “used”, but not how big the experience of being there or of simply knowing that it exists; nor can you quantify the value of native wilderness to itself.

Wilderness cannot compete in terms of numbers and dollars to be made out of it. You can take a long-term anthropocentric view of it and say (as we sometimes do) “wilderness protects a lot of ecological values, therefore in the long term it will benefit humankind” and then quantify the dollar value of ecological outcomes such as air and water quality; or you can at once take an ethical position, make a moral choice, and then simply say “respect wilderness for its own sake – this much we will leave alone” and tell the dollar seekers that you don't need to count how big, how much, how long, how many, because it is not relevant.

1. Nature and extent of research and monitoring activities ... main areas of scientific agreement and disagreement ... The problems include:

- scientism - the belief that “science” is the only form of knowledge, that scientific knowledge is confined to “hard” (experimental) science, that science is infallible, that science is “values free”, that if something is scientifically possible to it follows that it must be acceptable to do it.

- how a scientist is identified – does a bachelor’s degree or a PhD a scientist make? Original practice in the field? How long before employment as a bureaucrat or administrator takes away one’s status as a scientist?
- scientists (including academic) with financial/career interests in specific industries
- scientists protecting their careers by avoiding industry ire and political unpopularity
- scientists intimidated by developers and by state government bureaucrats
- science cannot produce proof – it produces evidence and probabilities, not the level of “proof” required in court. Hence apparent expert disagreement in court. Who decides the level of probability (alpha) required? Who decides what error band is acceptable?
- Who interprets the science – the scientists or those with vested interests? Bureaucratic and political misinterpretation and selective interpretation of scientific conclusions, particularly to and by ministers.
- “Science” provided to support projects is not necessarily peer-reviewed or published in scientific journals where it is open to all scientific criticism– within the discipline of science this is essential for the acceptance of a scientific report as “good science”.
- Conclusions based on negative results: this does not imply no result - absence of evidence is not evidence of absence.
- Bureaucratic interference in the reporting of commissioned science.
- Bureaucratic interference in the design of reports; limitations imposed via terms of reference etc.

Science is only part of the answer – systems of ethics and values determine what “science” is done and how it is reported and interpreted.

Part of the answer is the Precautionary Principle, to which all governments are supposed to adhere. They don’t. It was ALMOST used in 1995 (GBRMPA Oliver Report) but in that issue didn’t make it through the change of government (see below).

Example 1: the very brief GBRMPA Report by Jamie Oliver on an inspection by experts of the foreshore at Oyster Point NQ, in 1995, in relation to mangrove clearing and erosion. This report reads very clearly, giving very clear voice to the scientists and what they said. The conclusions are also very clear – and the interpretation advised to the Environment Minister of the day was exactly what the scientists said: Applying the Precautionary Principle, restore the foreshore urgently. Then the government changed. The new Minister was given new written advice as to the conclusions of the Report. This advice said the opposite to the Report’s conclusions. And decisions were then made without the public being aware of this inexcusable re-interpretation of the original report.

NO science is valuable unless it is peer reviewed and open to scrutiny. Government agencies typically sit on the actual reports while giving the public an interpretation that suits the department or business interest.

Example 2: A factor that seems relevant is the law of injurious affection that plagues Queensland. However the law might really be interpreted in court, it seems that government decision-makers have hanging over their heads the axe of compensation – compensation for some future profit that might never happen and requires no proof that it might ever happen – it might be no more than pie-in-the-sky - yet entrepreneurs can often rely on this kind of pressure to get the permits they want. Worse, in this discussion the natural environment seems to have no value of itself or for itself. It is still counted as being basically “available” for free: if I make a claim upon it, pose a use for it and am denied, then I can scream “hardly-done by” and demand compensation, however irrationally, until some politician thinks he/she is losing votes and gets me what I want.

The problem with the above is how something is valued, the reliance on counting, and the acceptance of entrepreneurs’ projected figures without question. Projects seldom have peer-reviewed social and economic impact studies done, even when environmental impact studies are required. Terms of reference can limit what an expert says, even after he has said it: witness the Russell Reichelt Report (EA 1996), which collated the reports of six other scientists who for the most part objected to the terms of reference and pointed out the serious distortions this would introduce. It seems that Reichelt faithfully reported what the Minister wanted to hear and in the executive summary provided a very long sentence from which the Minister was then able to extract a phrase or two that further changed the meaning of what the six scientists had said.

The above is a common enough process, but doesn’t explain WHY the natural environment is so undervalued, when the area in question has been valued world-wide for its existence values. It would seem that profit and votes and career aspirations also need to be quantified when quantifying studies are done. In this regard, I note that one of the Townsville presenters (Andrew) referred to the limitations of the terms of reference of the Productivity Commission. Now we come to a question of ethics – in this case, personal ethics, and the question of ducking responsibility for one’s actions. ASH members would hold generally that one cannot be resolved from responsibility for carrying out a bad action by saying “my boss told me to”. We would hold that the employee has a wide responsibility to the public and to the natural environment to point it out to those above when terms of reference are inadequate or so restrictive that they distort or pre-ordain the answer.

Some scientists do have ethics and are prepared to stand up and put their own scientific reputations on the line to protect outstanding natural values. See Appendix B:

- “Halt resort plan, urge scientists” (Courier Mail 03/05/96) – signed by over 200 scientists - and supported by many more who were *too afraid of repercussions to sign*;
- “Betrayed over world heritage” (The Australian 17/04/98) - an open letter signed by Sir David Attenborough, Professor Paul Ehrlich, Professor Charles Birch, Dr David Suzuki, Dr David Bellamy, Professor Frank Talbot, Dr Tim Flannery, Professor Ian Lowe, and Professor Alistair Gilmoure. The letter is self-explanatory.

- “TENSION HIGH” (Townsville Bulletin 19/07/97) for Professor Frank Talbot’s personal presence at a large demonstration in Cardwell – and for the way he was attacked in the media for his attendance.

See also Appendix C - a two-page collection of newsclips – including “Williams all wrong about the dugong” (Townsville Bulletin 18/10/97) quoting dugong expert Dr Tony Preen at length in response to attacks in the media by Keith Williams.

Note also in Appendix C a highlighted letter to the editor by Peter Kingston, a Sydney artist, responding to developer’s comments in the media.

2. **water quality examples.**

First it must be said that water quality is not limited to its physical and chemical properties – it has other properties such as noise levels and qualities, movement and the presence of relatively large foreign objects that are not usually included under the heading of “pollution” or “water quality” but should be.

Example 1 - chemical: One square metre of disturbed acid sulphate soil can produce over a one tonne of sulphuric acid. Thousands of hectares along the NQ coast are producing acid due to inappropriate soil disturbance eg (1) agriculture (specially cane farmers): deep drains, lowering of water table, clearing mangroves for planting (2) urban and residential/canal estate development – eg Oyster Point – and aquaculture farms.

See Appendix D: two sheets of colour photos at Oyster Point. One page shows the spoil pond leakage in November 2001 into the very narrow strip of Unallocated State Land that is now National Park, from where all ground water flows to the sea; the other (August and September 2001) shows (Upper) the Boat Maintenance basin (not completed) and (middle) close-up of the flow before the basin and (lower) close-up of the flow (flowing away from the camera towards the boat maintenance basin). In all the photos the discolouration is the chemical signature of sulphuric acid production from oxidised sulphide soils. The chemical process is somewhat similar to that found on mine sites where sulphide rock is crushed. Mines are now controlled in how sulphide rock is dealt with - but not our coastal sulphide soils!

Acid Sulphate Soils (ASS) are a huge coastal problem for Queensland. No factory would be allowed to pollute like this. The Queensland government has such little interest in it that it has virtually shut down DNR’s expert Queensland Acid Sulphate Soil Investigation Team (QASSIT). Local Councils struggle with it - though aware of it they have no real means of stopping the damage ASS disturbance causes. See 3 below for resulting bio-accumulation issue.

Example 2: noise and harassment of native marine animals; knowledge and how it is bypassed. Despite the world status of the dugong, despite the knowledge that the Hinchinbrook region is essential to their survival as a species, and despite all the known risks of boating traffic, all levels of government (but principally Queensland) have encouraged the means of “massively increased numbers of powered vessels in the Channel” (19 (ii) Ministerial Minute, 22 September 1994 by Gerard Early, Acting Deputy Executive Director, Environment Strategies Directorate Cth, “in consultation with AHC, ANCA, EPA, GBRMPA and the Attorney General’s Department”).

The minute quoted above also referred to

“19 (ii) ... speed restrictions placed on vessels and prohibition of access to certain areas.”

“19 (iii) Possible flow-on effects which will undermine the management objectives for the Channel and other sites on Hinchinbrook island, Brook Islands and especially the outstanding natural beauty of the east coast of Hinchinbrook (Thorsborne Trail)... increased tourist numbers on the sensitive adjacent Great Barrier Reef World Heritage Area .”

“19 (iii) presence of major resort and associated activities on the edge of the Channel and the consequences of that over the next few decades as the character of the area is modified.”

A critical factor in these deliberations was the state of the management plans for the area – at the time, in early draft; the Island National Park Management Plans were eventually completed after much public demand but the Channel management plan was never even fully drafted. It took a community organisation, Friends of Hinchinbrook, to take the Commonwealth Government to the Federal court, to get an outcome of a promise of a *Cardwell-Hinchinbrook Regional Coastal Management Plan* to be implemented within two years of the date of the court hearing (1996). Now, in 2002 – six years later - that plan is still in draft, along with a *GBRMPA Plan of Management* and a *QPWS Marine Management Plan* (NOT a *Marine Parks Plan*!). See Appendix E - a presentation to the Queensland Minister for the Environment last month, relating to the various draft planning regimes for the region.

We think it is a realistic judgement that these plans were delayed specifically to give the major developer in the area a chance to get his huge projected business operation up and running in the absence of income-limiting restrictions (he didn't, but considerable damage has already been done to the character of the area, now being promoted, though not very successfully, as a high-speed power boat racing and game fishing venue). See Appendix F photos of roadside signs – and for “\$25,000” advertising for game fishing competition - totally at odds with the world-wide acknowledged character of the area.

We are acutely aware of a QPWS staff member presenting a high-speed transit lane scheme across the dugong heartland (Missionary Bay) that was openly described as being solely for the benefit of another boating tourism entrepreneur in that area. The impact on long-term dugong survival was clearly not considered to rate beside the commercial possibilities of certain individuals; if ever there was a case for creating an actual sanctuary for a species, this was it – Missionary Bay and the northern part of the Hinchinbrook Channel, which to the dugongs is one habitat. Clearly, all those Commonwealth bureaucrats involved in the 1994 Minute to the minister (above) were well aware of the wild and beautiful and ecologically special state of the Hinchinbrook area yet the deleterious impacts that they foresaw have been allowed to happen by the decision-makers. See also Appendix G (GBRMPA information sheet on dugongs – note highlighted section explaining how fragile is the Hinchinbrook dugong population).

When the *character* of a place is altered, so does the way people treat it. When a place is wild and special and valued and protected for that quality, it will not attract (except illegally) those people who want something different. Consequently incidental water pollution with discharges and rubbish will be less and noise pollution will remain low.

polluting agricultural practices will respond to regulation accompanied by community pressure to protect a natural asset.

3 to what extent might economic, social and cultural values and international obligations be affected by deterioration in the health of the GBR?”

Others will no doubt cover major issue of loss of biodiversity due to siltation and pollution generally.

Australia has a number of international obligations – World Heritage and bird sanctuaries such as RAMSAR Sites. Loss of wetlands along the coast will eventually rip apart the daisy-chain of feeding areas necessary to migratory species. Some species travel the globe every year. It will take only one serious interruption for a species to virtually disappear. The wetlands loss also affects the GBR fish and crustaceans populations.

The World Heritage Area - or part of it - could be placed in the “WH in Danger” list - and conservationists have been talking about this for years while government departments went into denial. See Appendix H “Endangered Island?” (Herbert River Express 27/08/02)

And this year Townsville City Council even denied that Magnetic Island (off Townsville) was listed World Heritage!

The Hinchinbrook region is one of the most special places in the world, acknowledged internationally for its natural values and for social values including its aesthetic and wilderness values. Australia is obligated under the World Heritage Convention to protect this place for all these values, and to protect its *integrity* – in perpetuity.

To protect an area’s integrity requires a deep understanding of the implications of present “uses” of the area and of its long term fate if physically, biologically and conceptually damaging uses are allowed to continue.

Several coastal issues combine to threaten the reef corals as well as inshore species.

A little-canvassed issue is the long term poisoning of fish due to the delivery to organisms at the bottom of the marine food chain (benthic organisms and coral polyps) of toxic metals derived from coastal soils, dissolved in sulphuric acid generated by inappropriate excavation and draining of water tables in our coastal acid sulphate soils (ASS) and drained into the sea. Bio-accumulation can be expected with serious results for those at the upper end of the food chain – including humans. Not only biological and economic impacts: the incremental degradation of the GBR as a large wild place is a huge loss to all those people for whom the apparent health of the natural environment has psychological importance.

The unique and extraordinarily beautiful Hinchinbrook Passage is flanked to the west by the coastal lowlands and mainland ranges of the Wet Tropics World Heritage Area and to the east by the majestic spine of magical Hinchinbrook Island, its waters reflect dramatic shifts in cloud movements as the Island peaks create the weather that drenches Edmund Kennedy National Park on the mainland.

The whole Hinchinbrook region already experiences obviously damaging water-borne uses such as trawling and fishing. For example, the former seagrass meadows of Mulligan’s Bay (southeast coast of Hinchinbrook Island) need to be restored to

increase the feed available to the local population of the endangered dugong. It has no chance of recovery while the Bay continues to be trawled for prawns.

Dugongs are a flagship species for the Hinchinbrook area and for the GBR lagoon. Dugongs are slow-breeding specialist feeders. Their need to graze on seagrass in the coastal shallows places them in constant conflict with coastal urban development impacts including water pollution and boating activities. Australia's foremost dugong specialist Helene Marsh has said in her scientific reports that the Hinchinbrook region is the last bastion of the dugong – if they are to survive anywhere, it will be here, where boating traffic has not yet displaced them and injured them and seagrass has not suffered severely as it has in some southern habitats.

This whole northern area around Hinchinbrook Island is all very shallow mudbanks and gutters, (most 2 to 5 metres, some to 10 metres, and a few limited holes near the Island to 15m). The most special dugong congregation area of the region comprises Missionary Bay (northern coast of the Island) and the northern part of the Hinchinbrook Passage – some favourite feeding places in the Passage identified such as Hecate Point and Scraggy Point on the Island, and Oyster Point on the mainland..

At times hundreds of dugongs congregate here. Although little is known of the social life of these mammals it should be obvious that it would be imprudent to habitually interfere with them in this their heartland.

What is known is that boating activity is anathema to long-term dugong survival. Mortality occurs due to boatstrike and to the more subtle threat of displacement through what amounts to harassment, whether immediate (as in a feeding area) and long-term, when boating traffic is sufficiently high on an habitual basis that the dugong population simply deserts that area. The trouble is that there is nowhere else for them to go, as they are totally dependent on certain kinds of seagrass.

A useful analogy is to consider the response of a dairy farmer if a group of motor bike trail riders asked him if they could take their trail bikes into his cow paddock for a ramble. The farmer would not have to wait for scientific studies to “prove” that his herd's milk production would plummet as a result. Experiencing an acute coincidence of his pecuniary interests and the health interests of the herd he would of course refuse the request – he would not take the risk. Sadly, the governments that have the responsibility of protecting our most special wildlife in their most special habitat do not seem to suffer from this same coincidence of interests.

The short term uses that are being applied increasingly to the Hinchinbrook region will, if not restricted now, kill off not only the dugongs (yet entrepreneurs will get rich on this too – “come and see the last ten dugongs on earth” – “see the last pair of beach stone curlews”) but the character of the place, valued by Australian and overseas travellers. There will be economic effects at this level due to the loss of uniqueness. In the long term the economic loss will be subsumed into the loss of planetary health – if governments don't band together now and take the long view.

Cultural values include psychological effects.

To be aware that our species is killing off the earth bit by bit weighs heavy on people's minds. Every perceived loss is a reminder adding to disillusionment with governments and a sense of helplessness and powerlessness. This is not a value that can be readily quantified. Nevertheless, it can be said that the more humankind is alienated from the earth environment in which it evolved the more humankind is likely to experience existential anxiety and anomie, higher suicide rates and other

manifestations of psychological disturbance. The psychological problems of people living for short periods in non-natural settings such as submarines, biospheres, and spacecraft are well-known and indicate that human individuals are not infinitely adaptable. It is worth noting that church populations were not previously noted for their interest in environmental issues but in recent years the state of the natural environment has become a matter for the pulpit and for church groups (eg Christ Church in the city of Sydney). People are grieving for what they have lost, often the first time that people recognise and value the thing they are losing.

Cultural values include aesthetic effects, and effects on “character”.

Aesthetics is interpreted differently depending on whether it applies to the natural aesthetic of World Heritage Area or the profit potential in a view.

Example: Keith Williams at a hearing in the Federal Court in Sydney re an injunction restraining his company Cardwell Properties from damaging (cropping) tall mangrove trees at Oyster Point, as quoted on ABC Radio 4 QN by newsreader Noni Walsh:

“Developer Keith Williams has told the court his ability to sell waterfront property with a view of Hinchinbrook Channel is compromised by not being able to trim mangroves.

He said the properties would be worth #20 million if they have a view of the Hinchinbrook Channel but probably only \$10 million if he can’t cut the mangroves”

The fact that the view alone, not to mention the entire natural aesthetic of the area, would thereby be altogether ruined for anyone other than the proposed property occupants didn’t seem to rate in dollar terms to be set against the supposed dollar gain to the individual developer..

The Prime Minister’s view was that a defence deal and the destruction of the natural aesthetic of the Oyster Point area of the Hinchinbrook region (for the above development) were suitable positive dollar-returning offsets against some cost-cutting by the Commonwealth in other fields “... when you look at the ledger it’s a long way in credit” (see Appendix I).

Clearly the Prime Minister is no expert in natural ecology or wilderness or aesthetics. Worse, the Commonwealth agencies have not in our experience ever had a good understanding of marine aesthetics or wilderness values, yet these are two of the three kinds of value for which the GBR was listed World Heritage. How will these values be protected in light of this failure at the highest levels of Australian government?

See Appendix I (second page) also for articles by Syd Curtis, of long experience in managing NQ protected areas, and Keith Williams, in the Sunday Mail in 1995, discussing issues related to aesthetics and character. Note that Keith Williams has nothing to say on either of these but only reiterates unsupported promises of no adverse impact.

See Appendix J for “character” impacts: two colour sheets from Keith Williams’ advertising for his project at Oyster Point: (1) “Gateway to Nature’s Playground” and (2) “Luxury Living in Harmony with Nature” - the pictured scenes totally at odds with the agreed and supposedly protected aesthetic and ecological values of the area. (1) shows a crowd of fast fishing boats speeding across the sea – anathema to dugong protection and the character of the area – and (2) shows his house at Oyster Point, taken at low tide because it sits upon “reclaimed land” (local fill on marine sediment where once were mangroves) and at the higher tides the sea “intrudes” upon the

fenced area! – hence the rock walls (against Queensland policy re hard walls and coastal protection). This is far from harmony with nature, as no doubt a cyclone will one day demonstrate.

In comparison, see Appendix K - two advertising brochures that advertise tourism in the same area which identify their operations more aptly with the character of the place: no activities that are extractive or innately destructive are advertised. The advertising is appealing to a different group, one that is more likely to respect the region for its intrinsic values.

The nature-friendly tourism operators need the support of government decision-making if their business is not to be devalued and lost by the crass advertising of Port Hinchinbrook and the competitive, aggressive boating behaviour of the guests and residents this advertising attracts. The GBRWHA needs appropriate tourism to do well if tourism is to be the main or only “business” eventually allowed in the WHA.

Appendix N contains a group of articles and newsclips including cartoons by Leahy and Leunig - all depicting the respect for the natural *character* of a place and appealing for respect. We ask that you peruse these carefully, for these are about and by people speaking in their own terms of values without attempt to put a \$ value on them or measure their experience or question the existence rights of the natural world.

4. Yes, studies are needed

- (1) an attempt to reconstruct a picture of an area that was once naturally beautiful and rich but its natural beauty and structure destroyed for money-making, such as the Gold Coast,
- (2) focusing on the special non-quantifiable qualities of some of our few remaining special areas, the “jewel in the crown” of the GBR World Heritage Area, the mostly still-wild Hinchinbrook region
- (3) the only way agencies seem to be prepared to take action to protect an area is not be use of the Precautionary Principle but by having the “hard evidence” of science. We need base line information about the natural features of the GBR; the present situation of ignorance is shameful.
- (4) psychological studies – relating psychological health and ideas about the natural world and exposure to wild nature.

5 economic indicators

Gross value of production is an absolutely hopeless measure! Eg fishing and other industries such as agricultural in the NQ area. When you take into account the subsidies in their various forms some of these industries amount to corporate welfare AND they are destroying the natural environment as well. The difference between individual profit-taking and state support should be well-differentiated.

We understand that Sally Driml did some work for the GBRMPA in relation to commercial fishing that might prove useful on this issue.

Where are cultural, psychological and environmental existence values accounted for? Is the production of social cohesion not to be valued? Is social disruption not to be avoided?

It is extremely misleading to speak of gross production and value-adding (whose value?) without also speaking of costs and losses and values-destruction.

Costs might include environmental, social, health (physical, psychological; morbidity and mortality; individual and social cohesion), subsidy, impacts on other industries and social activities, and on potential activities.

For instance, see Appendix L - several articles are enclosed – we draw your attention in particular to highlighted sections of the first page of the Innisvale Advocate article *‘Entrepreneur blasts ‘sham democracy’*. When a developer describes human rights as a “load of rubbish” and speaks openly of voters realising “they can vote themselves money from the treasury” you can only wonder at the imprudence of the governments that assisted him materially with exceptional permitting, permits without fee, subsidising the company’s baseline studies. It must have seemed obvious to the most hardened (or softened) bureaucrat that this developer would be nothing but trouble – environmentally and socially. The last article *“Bitter feelings set to divide a small town”* reveals the impacts on the township of Cardwell-by-the-Sea, as it used to be called. These bitter feelings translated into death threats and other threatening actions against those who opposed the destruction of the natural values of the area and of their peaceful local lifestyle.

The World Heritage Area is to protected in perpetuity - for future generations. Future options should not be closed off. Your indicators should include a way to measure this.

New kinds of studies are required – if you stick to the same tor and measures the conclusions will only reinforce a given set of values; eg “importance” is used on p10 – and not defined. Importance to whom? For what?

“Jobs” is the pathetic lop-sided mantra of the present State and Commonwealth governments. “Jobs” was the empty promise on which Keith Williams’ *Port Hinchinbrook* proposals were justified. Appendix I includes an article (*Jobs doubtful*) and a typed list of *Port Hinchinbrook* jobs promises collected from various sources show how insubstantial was the promise. How many are actually employed there? We don’t have exact figures, but it would be around a dozen.

Questions 8 and 9 - no response

10 – levels of disaggregation –

When it comes to environmental issues *integrity* gets lost. Map-makers’ boundaries are seldom those recognised by the wild species that inhabit them.

Questions 11, 12, 13, 14

Economic projections typically look only on the profitable aspects and ignore the real costs to the industry, not taking into account bad years for instance, relying in advance on government handouts through “hard” times and expecting to get the benefits of nature for free. Nature isn’t free. Every time more land is cleared there is cost to be

borne by the future - whether in air quality or poisoned fish – today’s practices are increasing the costs of living for future people. Time frames need to be specified, future options not closed off, real costs counted, and use of the environment costed for its real worth and where it is irreplaceable, recognised as such.

Growth is the fundamental tenet of the current economic belief system. Economists need to take a good hard look at their trade and realise that economics lacks the “control” and “predictability” aspects of science, that it is only a system of beliefs and that the earth will not support unending growth. Australians are consuming something like 100 times as much per head as a person in Bangladesh. In the limited earth system such consumption can only be called theft – how can this be justified by economics?

15 principal activities that have the potential to affect water quality (Hinchinbrook area) and how managed; and 16 – management

Aquaculture: An EPA paper written 25th March 1994 stated that:

“The risk to the Hinchinbrook area is that the constant input of nutrients, algae and bacteria will upset the ecology of the area. The volumes proposed for discharge from existing and potential prawn farms are very large – in the order of 250,000+ cubic metres per day, not including the undeveloped lease held by Aquatec. This is equivalent in volume to the wastewater generated by a population of over 1 million people.”

Some improvements have been made since then – but very dirty waste continues to be discharged into the Queensland Marine Park. No wonder no Marine Parks Plan has been finalised for the Channel. The only value of the Marine Park and the GBR Lagoon to the prawn farmers is as a sewer. They do not have to recognise it as anything else. Although we would not suggest that people should be able to pay by arrangement for environmental damage, the environmental “cost” is not taken into account by the prawn farm business, not shown in its books as a debt to the state and to the environment. See photos attached as Appendix M, showing foam and green and murky water entering from Seafarm into an otherwise clean stream (Pig Creek, within the State Marine Park) and running into the Hinchinbrook Channel. Discharges off the farms during the wet season are horrific.

Agriculture – essentially, no controls at all. Eg deep drains continue to be made into ASS soils where spoon drains are known to be better for the farmer and for the environment. No land-clearing regulations. Agricultural Land intended for residential development excavated before rezoning and therefore without controls applied (eg land south of Oyster Point, companies associated with Keith Williams). Sulphuric acid and heavy metals; agricultural chemicals; silts; storm water arriving at the coast faster and with more damage done, more silt carried to sea.

Trawling: damage to sea-bottom and disturbance to ecology generally by selective fishing and bycatch kill.

Sewage: plant, septic tank, ships and boats. All should be returned to land and stay there. Local councils may need assistance to achieve this.

Codes of practice are a waste of paper. They are clearly ineffective. Even regulation can be ineffective: first, the EPA is allowing levels of damage -“exceedances” - in their licensing conditions. Second, the monitoring is self-monitoring and therefore

useless. “Out-of-sight, out-of-mind” and so it has gone on without the public being aware of what is going into the GBR.

17 policy options

Non-point discharges are even harder to prevent by self-monitoring.

The governments have to get real and regulate. The state government must carry the major responsibility here, perhaps with Cth help. The measures must be those that cannot be side-stepped. Give prawn farms a time limit for discharges – three years. If those with bad practices leave the industry, so much the better. They have no intrinsic existence rights.

18, 19 no response

21 improve institutional arrangements:

Remove as-of-right land practices (agriculture and aquaculture) and remove discretion for exceptional uses, which can become another “as-of-right” use by default.

Take environmental issues seriously even if not easy to evaluate in \$ terms: many environmental issues are not subject to compromise. Eg extinction. Noise and boat traffic pollution in the Hinchinbrook area will spell the end of the dugongs. This is not negotiable and this needs to be recognised and understood. Many environmental managers aspire to the impossible – to “manage” the unmanageable impacts and thus further their careers by shielding their bosses and politicians from the potential confrontation arising from making a clear decision. Perhaps decision-makers need to remain liable for the consequences of their decisions even after they’ve left the position.