In the public interest:

OPEN LETTER

to all the owners of "Port Hinchinbrook", the interested public, and the Queensland and Commonwealth Governments

"Port Hinchinbrook" is situated among former mangrove shoals and melaleuca marshes on the shores of the shallow, muddy, fast-flowing Hinchinbrook Channel. Hinchinbrook Channel is one big silt-trap for the Herbert, Seymour and Burdekin Rivers. Even sediments and contaminants drained into Bowling Green Bay end up in the Hinchinbrook Channel (Australian Institute of Marine Studies).

The short story is that "Port Hinchinbrook's" waterways cannot be kept navigable by dredging, because of an unchangeable characteristic of the Hinchinbrook Channel coast: "**severe siltation**".

This problem is inherent in the site; it is not caused by cyclones.

Adjacent to "Port Hinchinbrook" is Lot 170 (60 hectares) covered with dredge spoil, acid sulphate soils and acid leachate, a liability of the development. The dredge spoil ponds are full. No new spoil can be stored there until the old spoil is removed. No-one disputes that the cost of removing the old spoil is prohibitive: "**Dredging to land is not a viable long term option**" (Port Hinchinbrook Services Ltd Offshore Dredge Spoil Disposal Application 2009).

This outcome was known from the start.

In 1977 the Queensland Department of Harbours and Marine emphatically rejected the site: **"The area at Oyster Point should not be developed as a boat harbour**" because of its lack of naturally deep water, its location in a catchment, and its severe siltation necessitating a very high frequency of dredging (Summary and Recommendations (8)).

17 years of accumulated dredge spoil bear witness to their warnings: dredging "Port Hinchinbrook's" waterways has proved prohibitively costly. Spoil placed on Lot 170 since 1997 covers some 50 ha., around four metres deep. Because no "beneficial" use has ever been found for this cohesive, salty, acid mud, the "ponds" cannot be emptied so they can be re-filled with new spoil.

Successive developers, purchasers, investors and speculators have invested in good faith on the representations of "Port Hichinbrook's" proponents. Any gains made through these investments have arguably been undermined by prohibitively costly dredging and underlying acid sulphate soils.

By bluster and bullying, Keith Williams staved off the day of reckoning. Relying on public ignorance and avoiding scrutiny, he was adept at distracting attention from the insurmountable engineering problems of turning an unsuitable site into a saleable commodity. In 1995, Jeremy Tager (then Coordinator of North Queensland Conservation Council) described the project as "*a money game: invest as little as possible, get other people to invest, produce a plan complete with consents, permits, and special access to Hinchinbrook Island National Park, and sell it off to the highest bidder*".

Our interest in publicising this information at this time is to ensure that the public has the benefit of factual, documented information relevant to the "Port Hinchinbrook" site; and that the coast of the Great Barrier Reef World Heritage Area is protected from further insult.

Interested persons should demand that any new arrangements be exposed to a high level of scrutiny for factual content, business transparency, and freedom from impacts on the natural environment and the public purse.

A summary explanation follows.

1. COASTAL ENGINEERING REPORTS 1977 TO 1994: quotes

2. "PORT HINCHINBROOK": IS A MARINA VIABLE? quotes

3. DREDGING NOT FEASIBLE IN HINCHINBROOK CHANNEL: Lucinda, Dungeness, Cardwell jetty.

1. COASTAL ENGINEERING REPORTS 1977 to 1994

(1) HARBOURS AND MARINE BOAT HARBOUR FEASIBILITY STUDY 1977: SITE "NOT SUITABLE"

2 Recommendation (8) ***The area at Oyster Point should not be developed as a boat harbour.***

5.2.7 (b) ***Siltation of the boat harbour could necessitate regular and costly maintenance dredging…***

5.3.1 ***The excess of spoil really implies that the levels of the site are generally too high for boat harbour development.***

5.3.4.1 ***Excessive siltation of mooring basin: ... may thereby result in high siltation rates within the mooring area.***

5.3.9 ***The boat harbour mooring area and entrance channel would be subject to severe siltation.***

(2) COASTAL ENGINEERING INVESTIGATION 1988: NOT YOUR NORMAL SITE

This study was carried out by Winders Barlow Morrison (WBM) for the original development on the site, "Resort Village Cardwell". Without referring to the warnings in the 1977 Harbours and Marine Study, WBM nevertheless noted:

- the coastal processes of the site were unusual:

  Also, the location and wave exposure of this beach is such that the wave conditions and coastal processes at the site are ***unique and not easily related to other previously studied areas*** (4.1, Methodology)

- the marine silts were "cohesive", ie would not readily drain or dry out:

  ... these dredging costs may be high, but have been adopted to allow for difficulties with excavation and disposal of the ***cohesive fine sediments and silts*** *expected to be involved* [p.36].

- and they concluded:

  There is a ***high potential for channel and marina siltation*** *by the very fine silty sediments which comprise the nearshore seabed in the vicinity of the site [p.49].*

(3) GOVERNMENT REVIEWS 1989 and 1994 QUESTION MARINA VIABILITY

In 1989, in a GBRMPA-commissioned expert review of the WBM studies, the late Professor Kevin Starke (James Cook University, Marine Modelling Unit) questioned the viability of a marina in this location:

"This would require the use of prohibitively large ponds …" (S 4.4 p10)

"Is a marina in the Hinchinbrook channel viable compared to a marina in a location with less of a siltation problem?" (S 5.2.4 p13)

In Feb 1994 the GBRMPA faxed comments on the development proposal to the Department of Environment Head Office marine section. Even the developer's own distinctly over-optimistic figures added up to bad news:

… if the total capital dredging is 32,000 metres (p44), and siltation is 15,000-20,000 metres per year (conceivably more) maintenance of navigable depth will be difficult – the channel may completely fill in every two years, and could require maintenance dredging, with its concomitant environmental effects, every year! Either there is a mistake in the figures or the channel concept needs a rethink; to go public with these parameters is not recommended…

In May 1994 Keith Williams' released his consultants' (Cardno Davies) *Compilation of Information*. On p.45 it discusses the problematic quality and quantity of silt, with optimistic guess work:

> [entrance channel] *Dredging of this marine clay may produce* ***a slurry of fine sediments in suspension, with the potential colloidal influences of these fine clay particles requiring extensive detention periods to enable deposition*** *... The quantity of material to be dredged will be approximately 64,000m3, which following dredging may be equivalent to a volume of dredge spoil of between 140,000 and 160,000 m2.*
>
> *... series of detention ponds ... Ideally, from an environmental viewpoint, it would be desirable to operate these ponds in a no overflow" situation, however for the potential quantity of dredge spoil,* ***this would require the use of prohibitively large ponds.***
>
> *A series of 4 ponds is proposed, with a total capacity of the system being approximately 100,000m3 with an additional effluent detention pond with a capacity of 10,000m3...*

In July 1998, Keith Williams revealed his own intimate understanding of the problems of the site when he wrote to former Senator Graham Richardson (Macquarie Network):

> *"... the large canal ... (800 metres long - 100 metres wide - average 6 metres deep), is* ***acting as a silt trap*** *whereas the three creeks, which it has replaced, carried all of this suspended sediment into the Hinchinbrook Passage for millions of years.* ***Any geologist would be aware that Oyster Point exists because of the build-up of these sediments since the beginning of time.****"*

2. "PORT HINCHINBROOK": IS A MARINA VIABLE?

(1) PORT HINCHINBROOK'S TWO LARGE DREDGE SPOIL PONDS ARE FULL

The dredge spoil storage ponds have never been emptied. There is a reason.

The **original** 4-metre high spoil ponds (from 1994 on) and acid soil dumps and acid-filled holes cover around 35 hectares of Lot 170 south of Stoney Creek. Because the original ponds were not properly constructed in the first place this storage cannot be refilled, even if it could be emptied; by the developer's own admission, it has contaminated the ground water with salt (developer's Newsletter to PHS Apr 18, 2005).

The "**new**" (western) 12 ha spoil pond, which failed a 2009 dredging licence but was conditioned to meet better standards under a new licence (2010), is also full. Although the developer owned plenty of additional land, it is doubtful that any government would allow Queensland to be covered, 12 ha at a time, with toxic, acid, sticky, salty marine mud from the Hinchinbrook Channel.

(2) MISSING DREDGING RECORDS: WHAT THE COURT WAS NOT TOLD

In 2004 Keith Williams was building his case for breakwater construction as a cure for Port Hinchinbrook's access problems. He said the breakwaters:

> *"are expected to reduce siltation* ***to about 30% of current levels*** *... This will probably save them about $250,000 every six months in dredging fees…"* (*Developer revives breakwater project* Courier Mail October 10 2004).

At a little over $1 million annually, this was quite an underestimate.

In April 2004, Keith Williams' consultant Cardno, in a letter to the EPA, washed their hands of the dredging-reduction claims on behalf of the developer:

> ***We are unable to confirm that the construction of the proposed breakwater walls will reduce the maintenance dredging requirements in accordance with the estimates presented ... until after the breakwaters are constructed.***

In 2005 however, in the Supreme Court *(Alliance to Save Hinchinbrook v The Chief Executive DERM, Supreme Court at Cairns file no. 341 of 2005 09 February 2006, Judicial Review of Marine Parks Permit)*, the developer asserted (without presenting any evidence) that breakwalls would reduce dredging from a *claimed* 40,000 cubic metres annually to 15,000 or 20,000 cubic metres - ie **to 37% or 50%** of 40,000 c.m. His excuse for not providing evidence to support his figures was that the EPA had not required the keeping of dredging records. His Honour noted:

> ***[38] ... There were no means by which accurate data about any future activity could be assessed ...***

Nevertheless, His Honour upheld the permit to build breakwalls, accepting the developer's unevidenced assertion that breakwaters are the usual engineering practice for reducing siltation. Documented evidence that the site was not "usual" had been withheld, including the *WBM Coastal Engineering Investigation 1988* which identified the site as ***unique and not easily related to other previously studied areas*** (see 1(2) above)**.**

In May 2006, the court case over and "missing" records ensuring no possibility of challenge, Keith Williams advised "Port Hinchinbrook" property owners that the breakwalls would:

> "reduce dredging **to between 15% and 25%** of that which it is today" (KW to BAMLPAYERS 22 May 2006).

(3) BREAKWATERS: TRYING TO SELL THE LIABILITY TO THE COUNCIL

In 2007, after the breakwaters had been built and the waterways dredged, local contractor John Wood, representing Port Hinchinbrook Services (a company controlled by the developer) formally advised the CCRC that no dredging would be required for six years (Tully Times 16 August 2007).

At this time the southern breakwater had acted to trap northwards-moving silt, temporarily reducing its full flow into the access channel (see aerial photos published in ***PHŒNIX!*** June 2012), delaying the inevitable revelation that the newly-dredged channel was again silted up.

By mid 2008, the siltation was obvious. And now there was nowhere to legally dump new dredge spoil. By this time the PHC BAMLPAYERS were questioning if past dredging had been as claimed, struggling to understand "***why there is so much silt***" (BAMLPAYERS Newsletter 12 July 2008). They had yet to grasp the fundamental problem presaged in government documents since 1977: **dredging at this site would be economically untenable**. The PHC BAMLPAYERS made a conservative cost estimate for just one episode of spoil removal to accommodate the marina area alone **(130,000 cubic metres) as $4m** (2008 dollars) - and, very likely, an annual requirement.

In 2010 the most recent dredging licence (1PD801379509) was given for a new, much smaller (12 ha), above-ground containment pond. This is now full, the last addition being from State government dredging of a central gutter in the Grande Canal at public expense.

The new pond may only be emptied if the salt and acid dredge spoil is disposed of in a manner:

> (a) which does not cause any land to become contaminated land; and
>
> (b) is not likely to cause environmental harm ...

3. DREDGING NOT FEASIBLE IN HINCHINBROOK CHANNEL

The untenable cost of dredging in the Hinchinbrook Channel is why sugar ships are loaded from one of the longest jetties in the world, 7 km out from Lucinda (only Texas and Mexico have a longer jetty); for the same reason a ferry terminal proposal for Dungeness was abandoned about 1997); and the only attempt at dredging a channel to the Cardwell jetty (about 1980) was abandoned virtually before it was completed, so quickly did it fill in. ##