Neil and Denise O'Connor

Harlin Q4306

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24 February 2011

Queensland Floods Commission of Inquiry

G.P.O. Box 1738

Brisbane Q4001

Dear Commission

Neil has lived on Upper Brisbane River all his life i.e. 60 years.

During that time the highest floods occurred in 1955, 1999 and earlier this year in Jan 2011. (1955's flood was 2 metres higher that the 2011 floods). As is the case with most moderate and major flooding, there has always been some bank erosion. But the previous floods have not come close to this one. This flood has brought unprecedented damage, especially bed and bank erosion - the worst in Neil's lifetime.

During the last three months, the extensive rainfall has resulted in the worst damage we have seen to the riverbed and banks in the Harlin area. The river channel has been widened and lowered leading to the collapse of the banks and the changing of the watercourse. In areas that we would have considered stable, numbers of large gum trees aged between 100 and 200 years of age have now been torn out and strewn down the river.

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Over approximately the last eighteen (18) years, State Government (Department of Environment and Resource Management-DERM- and previously Department of Primary Industries, Department of Natural Resources and Department of Natural Resources and Mines) and Local Government(from 2004 onwards) permits for major sand and gravel extraction have been granted at 3 strategic points along the Upper Reaches of the Brisbane, namely at Cox property, at Karreman's property and below the former bridge at Gregors Creek. These sites are located where sand and gravel had been deposited on bedrock forming natural bars and these natural bars had previously slowed down the flow of flooding water down the Brisbane River. Since these natural bars have been removed (by over extraction) and the subsequent acceleration in water speed has occurred at the time of flood, the bed has become lowered and widened by the velocity and force of the water and the banks have been severely eroded as a result.

It is our belief the degradation in the most recent flood event has been accelerated by the sheer speed (velocity) of the water particularly from where the Emu Creek water enters the river at Colinton, approximately four (4) kilometres upstream from Harlin. We have never seen the water travel at the speed of this flood.

In the early 1990's, a number of sand and gravel extractors applied for permits to extract sand and gravel from areas along the Upper Brisbane River. Local council and landholders objected to these permits.

Two of the reasons were that...

- (1) Mass degradation had previously occurred from the 1955 flood onwards in the lower reaches of the Brisbane, in particular around Mount Crosby, Pine Mountain and Goodna
- (2) the proposed volume of extraction far exceeded the capacity of the river to sustain its integrity.

Council and landholders were fearful of a repetition of the destruction of river banks and farms. In 1994, the then Department Officer, gave a well- attended public meeting of local

councillors and landholders at the end of Sinnamons Lane at Harlin an assurance that this environmental destruction would not be repeated in the Upper Brisbane. Subsequently a moratorium was imposed on sand and gravel extraction to allay local council and landholders' fears.

But now in 2011 it has in fact occurred.

A number of environmental reports have been tabled in the last 20 years-

Andrew Brooks (2007)- A Fluvial Audit of the Upper Brisbane River: A Basis for Assessing Catchment Disturbance, Sediment Production and Rehabilitation Potential

Brierley and Brooks (2004),

Brierley (2001)

Brizga and Finlayson (1996).

Each report has made reference to the potentially damaging impacts of sand and gravel extraction on the Brisbane River. Professor Andrew Brooks has visited the relevant sites on at least three (3) occasions.

It was hoped Brooks' report would guide land management in the Upper Brisbane River to reduce erosion and subsequent sedimentation of the river and therefore improve water quality in Lake Wivenhoe. Its recommendations aimed to dramatically improve the ecosystem health of the river system above the dam. One of the report's key recommendations was to cease 'sand and gravel extraction between the high banks of all channels in the Upper Brisbane River catchment.' It also recommended 'further investigations to determine the feasibility and design of structural measures, such as engineered log jams to treat erosion hotspots' and an expanded monitoring network to measure the volume of sediment moved during floods.'

Given the magnitude of the recent floods, it is our view now that this would not work.

An earlier report by Wayne Erskine in 1993 recommended that the removal of sand and gravel from the Brisbane River in the future would result in significant environmental degradation namely 'bank erosion due to the undermining of the bank toe'. He echoed the fears of Holmes and Wallace who had expressed concern about the relationship between dredging and subsequent bank erosion in 1980 and 1987 respectively.

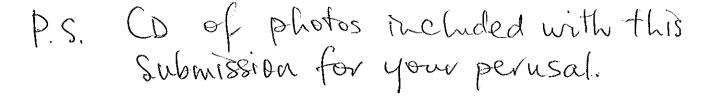
In conclusion, we believe sand and gravel extraction in the area of the Upper Brisbane River should be terminated.....

- (1) the natural bars which slow down the water flow need to be reinstated. The only chance these bars have to reestablish themselves is for all sand and gravel extraction to cease from the channel. This process of 'bar restoration' will take many years due to the degradation caused in this most recent flood event.
- (2) the riverbanks need to be stabilized as most of them are now sheer. Water needs to be directed away from the toe of the bank and the material within the channel needs to be pushed up the banks
 - (3) tea-tree thickets that form islands in the channel need to be removed as they inevitably force water on to the soft banks.
- Thank you for taking the time to read our submission

Yours faithfully

Neil O'Connor

Denise O'Connor t



For Your Information - these are 2 of original objections to sand/gravel extraction in Harlin 4306. area in question thing Executive, OP I - water Resources, gutton. Dear Sir, I am writing to you regarding applications (NO. 57044) (NO: 57046) to extract sand and gravel from the Busbane River. I own properties on the Brislane River at Harlin close to application 57044 and at Scrub crub close to application 57046 I am forty two years of age. I have lived on the river all my life and have seen a lot of changes in the river in that time. There has been a great deal of erosion to the river banks particularly around where I live.

Anost of this has occurred in the times of high floods I was told by my Father that the bad erosion started in the 1956 flood and I saw for myself what the 1974, 1983 and to a lisser digree 1989 did.

I slands have formed in the middle of the stream of believe the hundreds of trees growing on these island, and the islands them selans are causing snoot of the erosion to the banks because they divert the stream in a time of high flood.

I believe the water is travelling faster howadays because there has been so much timber cleared from the catchment area. I believe also that these island. I've mentioned need to be taken out and the river put back where it originally was. I his would be in the best interests of the river and the people who see it and use it.

If the extraction of sand and gravel is allowed to happen to the measurements given in the applications, it will compound what is a great problem at this stage. The seeching effect on the banks will cause even greater erosion. The fact that the width of the execution proposed will be well into the high bank in some places can only cause more erosion

If these applications are approved, this would be nothing less than environmental vandalism and totally irresponsible behaviour on the part of a government Department, I object to these two applications (NO. 57044 and NO. 57046)

yours Sincerely,

Reil O'Connon,

Thankin 4306

if Executive, DPT water Resources Gutton.

or Sir, Jam writing to you regarding applications. 57085 and NO. 57087

vis. I am objecting to these two applications because I him the area is to large.

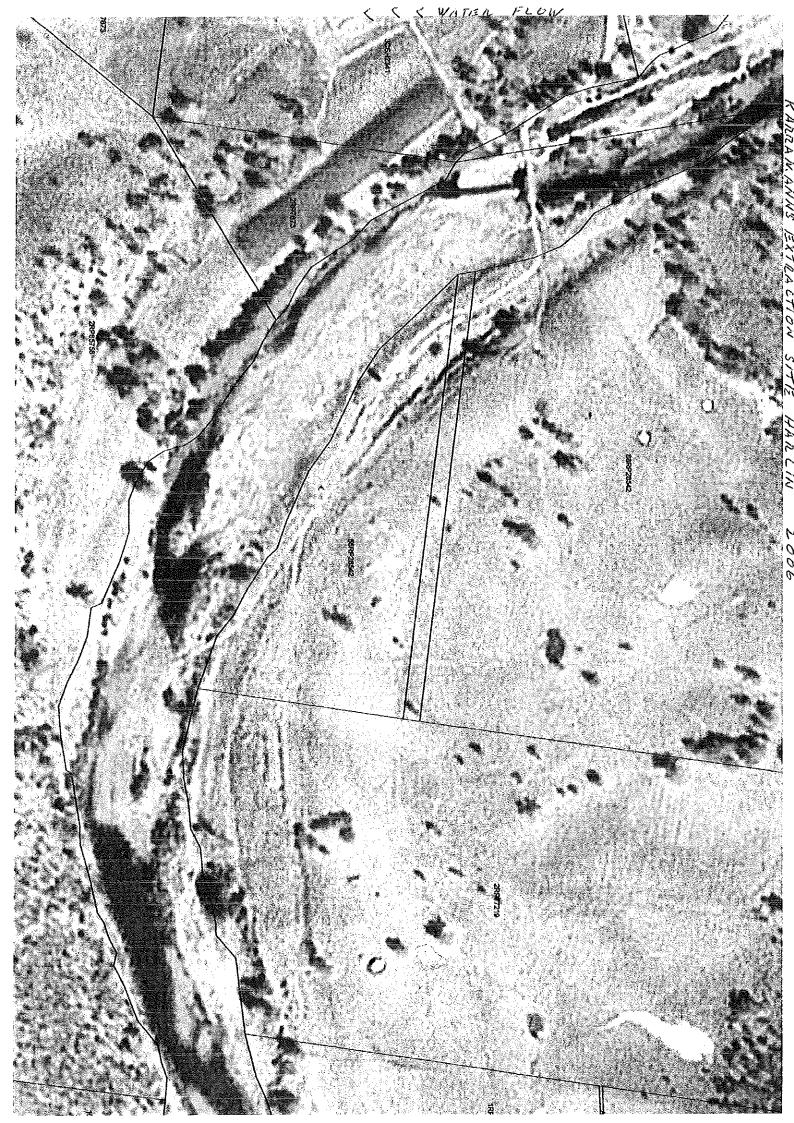
"a my opinions the integrity of the Bushane River has
of been cared for in the past, in the lower parts of the
ier, areas around Rine Mountain, Mt. twolly and the
netion of the Bushane o Bremer vivers to mame a few.
"I degradation caused by sund and gravel extraction
these was a Rothing short of environmental rendalism,
- my hnowledge an environmental impact study has not
in done on the areas above winenhor Dam on the river
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and intentions. I believe it is a requirement.

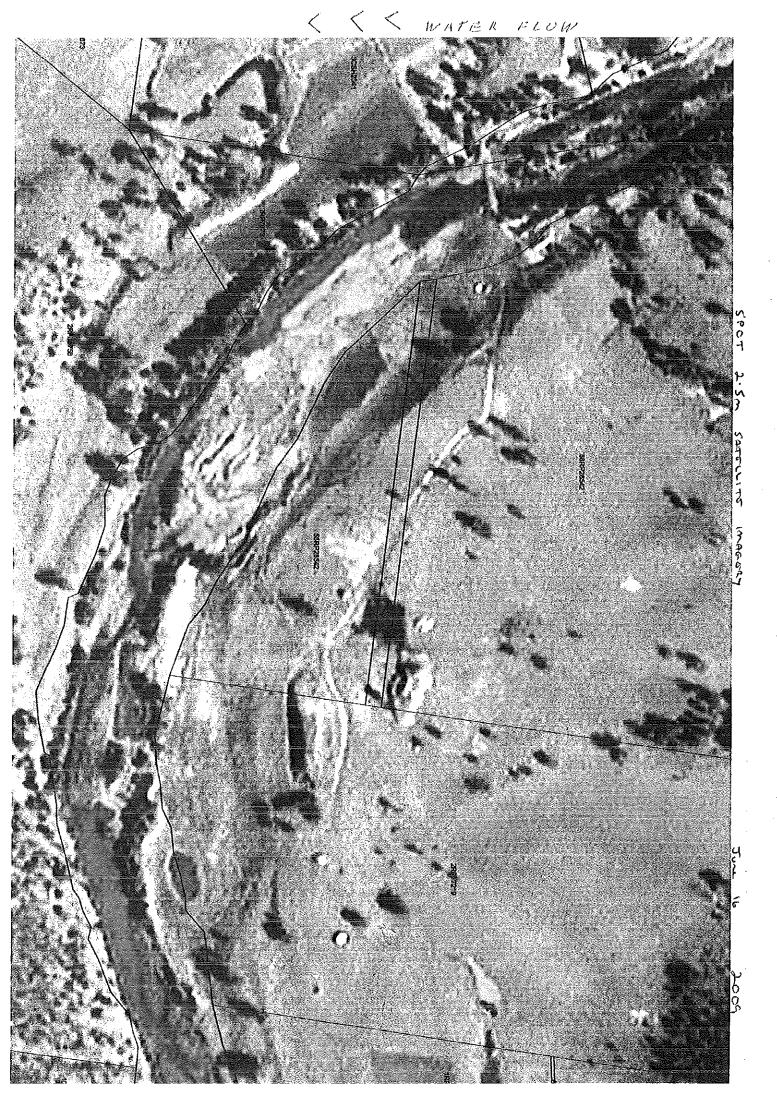
yours Sinerely,

MEIL and DENISE OGNINOR
Submit,...

GPS images 57 extraction site @ HARLIN 2006 - 2009.









Hon Stephen Robertson MP Member for Stretton

M/05/00290 GP Ref CTS 02696/05



Minister for Natural Resources and Mines

2 7 MAY 2005

Dear

Thank you for your letter of 23 April 2005 concerning gravel extraction in the Harlin reach of the Brisbane River.

I can confirm that a development permit was recently granted under the provisions of the Integrated Planning Act 1997 authorising the extraction of quarry material from the bed of the Brisbane River at Sinnamon's Lane, Harlin. The development permit authorises the extraction of a volume of 5052 cubic metres of material from the river.

Matters considered in making this decision included -

- the physical integrity of the warercourse, including bed and bank stability;
- the condition of the watercourse;
- the effects to bed and bank integrity caused by previous quarry material extraction at the
- the volume of quarry material remaining in the watercourse at the site;
- the findings and recommendations contained in the Riverine Quarry Material Management Plan for the Upper Brisbane River, Lockyer Creek and Buaraba Creek;
- the concerns of adjoining land owners about the potential for further extraction of quarry material at the site to cause degradation to the bed and banks of the watercourse.

During a site inspection undertaken on 17 December 2004, officers of my Department noted. that there was bed lowering evident within the watercourse in the vicinity of the proposed extraction site. Concerns were also expressed by the adjacent land owners that continued extraction of quarry material from the site could lead to the migration of the low-flow channel of the watercourse.

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It was subsequently decided that it would be appropriate to grant a development permit to authorise the extraction of only a *limited* quantity of quarry material from the site subject to a number of terms and conditions. The decision was made for a number of reasons, including the facts that —

there was a large extant deposit of quarry material remaining at the site;

• the extraction volume authorised under the development permit is within the sustainable extraction limit (11,000 cubic metres/ annum) for the Upper Brisbane River. Hence, there will be a net accumulation of quarry material in the watercourse over time;

there had been significant replenishment of quarry material at the site following each

medium to large flood event in the watercourse;

• the possibility of an abrupt change in the course of the stream at the site would be minimised by limiting the extent of extraction in order to retain a large section of undisturbed deposit, which would then act as a buffer zone;

• the bed lowering evident upstream in the watercourse upstream was the result of the previous large-scale extraction of quarry material from the watercourse. It would be unlikely to be further exacerbated by the relatively minor extraction volume authorised by the new development permit;

no native vegetation would be destroyed by the extraction of quarry material from the

site; and

• the terms and conditions of the permit clearly limit the extraction of material from the site, and will ensure that compliance with the permit terms is enforceable.

With these conditions in place, it was considered that the extraction of material from the site within the permit terms and conditions would be unlikely to detrimentally affect the interests of the adjacent landowners.

My Department will undertake regular inspections of the extraction site to monitor the bed and banks of the river and to ensure compliance with the conditions of the granted authorisation.

Should there be any evidence that the extraction of the quarry material is detrimentally affecting the integrity of the bed and banks of the river, my Department will give due consideration to either amending or cancelling the authority to extract quarry material from the site under the provisions of the Water Act 2000.

I also confirm that it is unlikely that further extraction of material from the site will be authorised, after the currently authorised works are completed. Further extraction from the site would be considered only if there was a significant flood event in the watercourse, which resulted in the replenishment of quarry material at the site.

I trust this information clarifies the situation. contact on telephone	Should you have any further enquiries, please South East Region, of my Department
Yours sincerely	