

## **INQUIRY INTO PACIFIC HIGHWAY UPGRADES**

**Organisation:**

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**Subject:**

**Summary**

**John Broomhead**

Legislative Council  
GENERAL PURPOSE  
STANDING COMMITTEES

29 AUG 2005

RECEIVED

27<sup>th</sup> August 2005

General Parliamentary Standing Committee  
4, Pacific Highway Upgrade.  
[gpscno4@parliament.nsw.gov.au](mailto:gpscno4@parliament.nsw.gov.au)

Dear Committee and Honorable Members;

I would just like to point out some facts from my research that I have just completed, hence the late submission. I have been researching Impacts on Infrastructure from Climate Change on the section of coast Ballina to Evans Head and west to Coraki as part of an Honours degree at Southern Cross University.

Climate change according to CSIRO, NOAA and the IPCC at this latitude states the sea level will increase 90mm to 880mm by 2100. At present, the sea is increasing at the rate of 3.4mm per year and will double every 6 years using the 1996 CO<sup>2</sup> and NO<sup>x</sup> levels (which have increase since 1996).

- Sea level rise (SLR) of 220mm will impact upon Infrastructure by;
  - Change to Insurance policies (what will and will not be covered) this will cause increase risk.
  - Erosion in river mouths
  - Flooded & Lost farm land (approx 10,000 acres in the study area)
  - Flooded local roads, some telecommunication and power distribution networks rendered useless including the main telecommunication feeder cable.
  - Increase in pests and weeds ( ie Fluke, Black leg, tics, buito bush ect)
  - Increase in rain in study area, no frosts, grass growing 24 x 7
  - Less domestic farm land being available due to salinity increases.
  - Loss of beach fronts of up to 400metres in places
  - Loss of fishing ground due to erosion and sand deposition of sediment on fishing grounds.
  - Major change in fish species of this coast.
  - Major change to inground fauna change above two degrees C° (Male more than females born) Turtles and similar eggs layer will need to move to cooler area such as this coast to stop extinction, therefore more main land reserves needed.
  - Minatory change to all land species Flora and Fauna causing a change to agricultural practices in this study area only. Some species will become extinct other will need to migrate to the area from Qld and west NSW and Qld
  - Grass will grow all year no frost increase in domestic stock close to coast.
  - More light rain showers on coast, over all rain to decrease

Cost to **Ballina and Richmond Shire Councils** by the year 2050  
(The expected 340mm SLR)

- Of the 229 klm sealed roads approx 80klm would flood, and have to be lifted (Cost 248 million dollars) @3100m.
- Of the 117 klm unsealed roads approx 91klm would flood, and have to be lifted (Cost \$200 million dollars)@2200m
- Bridges and Culverts = 19 major or 273m cost to upgrade (cost \$7.5 million)
- Levee banks estimates at 47 klm would have to be lifted (Cost \$120.5 million dollars)
- The cost from one cat 3 cyclone on dune 11a profile would remove 76% all cane on the eastern side of the river cost over billion dollars.
- Rockwall in the river will need to be lifted within 35 years 12 klm minimum cost \$6.0 million.

- Community costs of pest and health issues including mosquito diseases per year after 2050 1.5 million dollars per year on present WHO estimates council share 1/3.

I have specifically not mentioned the highway upgrade because I do not believe the State government can built the highway anywhere near the Richmond and Evans rivers.

My reasoning is simple:

1. At present the dune reservoir at the entrance to both Boundary Crook and Everson Creek is only 23m wide and the cane paddock behind the dune is 570mm below a normal tide level some 57metres away. Under present advice from cyclone researchers they say "cyclone will be much larger than before and with more rain". One cyclone would remove any infrastructure built in this area. The 1954 flood was 1810mm above the present location of the Highway at Everson creek; on a 2 metre tide the cane paddocks are flooded now. Under climate change the paddocks will have according to CSIRO,NOAA and IPCC predictions up to 880mm of river above this level, or to use PIPNAR predictions 540mm therefore you would have a road with water all round it waiting from a cyclone to wash it away.
2. The approaches to this section of the Highway upgrade would be subject to the above and not conducive to a highway conduit feed Brisbane to Sydney.

While I have no interest in the highway upgrade, I do believe the better option is the move the highway to the Summerland Way for the section south of Grafton to West Brisbane of which the Qld Government states they are to make Ipswich a growth area over the next 20 years.

The cost saving

1. 100 klm shorter over 700 klm
2. Climate change would have minimal affect
3. It would decentralize Highway One
4. No major bridge would be required to be built
5. Sets an example of moving away from a danger zone and beach front
6. The cost would be less over all

At present I am trying to rise funding to carry out a fuller research on the impact of infrastructure from climate change on coastal NSW towns and provide a Guide and Impact Map. The above research has been at my cost and would appreciate help in funding should you find the above research worthy of use.

Regards

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