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To the members of the Queensland Floods Commission of Inquiry 2011 The Honourable Justice Catherine Holmes Your Honour.

Terms of Reference Commissions of Inquiry Order (No.1)

Introduction:

I have lived at Grantham west on rural residential lots (number 1 & 2) for the last 39 years. These lots are situated between the rail corridor and the Gatton-Helidon Road and considered out of the general flood area, therefore, had not previously suffered from flood damage during our residence August 1972 till the phenomena of 10 January 2011. This land area, as advised by the former Gatton Shire Council now Lockyer Valley Regional Council, was first subdivided into rural residential 1 acre lots (0.4046 hectare) for soldiers returning from the First World War.

My cavity brick home and sheds are located on the south side of the railway embankment/ corridor one block back and adjacent to the Gatton-Helidon Road. My home will have to be demolished due to severe impact damage to the western (back) wall (see photos 8 & 9) and force movement by the slab. Many large logs were found within my rooms. My house is on a footing of 60 cm of red river gravel (in relationship to Grantham-Helidon Road height) and the flood water height was approximately 165 cm inside my home.

Summary:

- 2. Appointment of Commission
- (g) all aspects of land use planning through local and regional planning systems to minimise infrastructure and property impacts from floods.

I hereby state important points for the commissioner to consider regarding my Grantham (west) home and Queensland Rail existing infrastructure design and planning in association with other entities transecting the Grantham floodplain (see photo 7) which I feel has exacerbated the effect of water height, backwash and channelling force to cause the destruction of my home in this Grantham West area.

Facts:

My points in part refer to being an eye witness to the 1974 flood and the dam-like effect of the railway embankment on flood water height, backwash and channelling force as I was not at home during the "inland tsunami" of 10 January 2011.

- The land fall in Grantham west area is towards the north east.
- o The railway line's embankment transects the floodplain of Grantham West.
- The railway line runs East/West and is situated on a high embankment to the North of my home and the Grantham West area. See photos 1, 2 & 3.

- The Lockyer Creek is situated to the South of my home and the Grantham-Helidon Road. See diagram 1.
- The railway embankment is intact from the Grantham Rail Bridge underpass to the rail underpass at Dinners Corner approximately 4 km.
- The Lockyer Creek in 1974 overtopped its bank near my lots and flowed in a North Easterly direction until contact with the railway embankment causing a dam-like effect of increasing height, backwash, and channelling East along the railway corridor to the more populated area. This was observed by myself and my husband who were standing in the paddock in the early hours of the morning.
- In the 2011 phenomena debris direction in my shrubs, trees, and windows and where my possessions were found indicate a violent flow from the West (see photos 8 & 9) but strangely some possessions were found on the Western side of my house. Also a large tree at the back of my house (Lilli Pilli) was 'screwed off' above the roots indicating a whirlpool effect which I believe was caused by the backwash from the rail embankment.
- The overtopping of Lockyer Creek at Grantham West was in the vicinity of the overtopping area in 1974 as confirmed by two (2) eye witnesses who was walking on Citrus Street at the time and stated he was not concerned with this occurrence. The flood water flowing North across the Gatton-Helidon Road encountered the dam-like barrier of the rail embankment forcing flood water height to increase and flow direction to change to east towards the village centre.
- A 'wave' from the West then came down the Gatton-Helidon Road/railway line corridor as confirmed by the two (2) eye witnesses and and causing to be rescued by neighbours and considers himself lucky to survive. This 'wave' overtopping point was on the U-bend of Lockyer Creek at Dinners Corner (approx 4km from Grantham village centre) (see photo 5,) as described to me by an eye witness and flowed North until encountering the dam-like barrier of the rail embankment which turned the flood wave direction East to follow this railway corridor towards the Grantham village increasing in height and force and finally overtopping the railway line (see photo 6).
- O Grantham's floodplain is bordered on the North by Sandy Creek (see photo 4), which has a different headwater source to the other creeks and to my knowledge did not suffer flood inundation in 1974 (though Sandy Creek had recorded 4 inches of rainfall at its headwaters). Sandy Creek's flood height 'markings' after 10 January 2011, as observed, appear to indicate the creek was not at full flood height i.e. close to overtopping.
- Three (3) people lost their lives in the brick house adjoining my lot and I dread to think the outcome of lives lost were similar phenomena to occur during the early hours of the morning as in 1974.

Recommendations:

- A review of the existing intact railway embankment transecting the floodplain to minimise water height, backwash and channelling force, will minimise damage to property and life, therefore, I consider this action as a priority for installation of openings/culvert of appropriate height and at appropriate intervals along the section from the Grantham Rail bridge to 'Dinners Corner'.
- A new review of the study by Qld Railway early this decade seeking a new bypass rail corridor located nearer to the Gatton-Helidon bypass whereby this dam-like barrier through Grantham would then be decommissioned and dismantled.
- A review be instigated of existing infrastructure and floodplain management in Grantham by Qld Rail and entities and subjected to the same best principles and guidelines by the CSIRO as to proposed and/or upgraded infrastructure for road and rail agencies to minimise damage to the State and Federal Government's own infrastructure.
 - *'that infrastructure does not have an unacceptable detrimental effect on flood behaviour'
 - *'increase the capacity of bridges and culverts so to reduce the impeding effects of embankments'

Conclusions:

- I feel the destruction of my property was an overtopping flood wave from the Lockyer Creek being channelled from the west, down the railway embankment corridor for 2 kms, therefore, producing another wave force or 'inland tsunami' effect.
- The intact nature and height of the rail embankment from the Grantham Rail Bridge to 'Dinners Corner' transecting the Grantham flood plain increased flood levels and flood hazards causing extensive damage to my home and loss of life in Grantham West.

Yours faithfully Sheryl and David McMullen

NOTE: Photos that completed my submission could not be included due to your limit max upload size.

^{*}Floodplain Management in Australia Best Practice Principles and Guidelines By CSIRO 2000 ISBN 0 643 06034 0