

From John Tibaldi **Date** Tuesday, 1 December 2009 1:24:12 PM
To 'Allen Peter'; 'John Ruffini'; Terry Malone; 'Ayra, Rob'
Cc Rob Drury; Jim Pruss; Barton Maher
Subject Wivenhoe Dam - Fuse Plug Breach Gate Opening Tables

[Wivenhoe Dam - Fuse Plug Breach Scenarios.xlsx](#) (97 KB HTML) [image001.png](#) (7 KB HTML)

Attached are the calculations for the radial gate opening tables following one or more fuse plug breaches (three scenarios are obviously possible depending upon the size of the event). The derived tables will be inserted into the manual for use primarily during Loss of Communications situations. Points to note are:

- For Scenarios 2 and 3, the main factor necessitating gate operations in the early stages of the event is the need to prevent gate overtopping and the resulting potential loss of gate function.
- The tables replicate dam outflows with the fuse plugs intact prior to the event. This results in large gate openings corresponding to the fuse plug trigger levels. This replication is important if the tables are used during an event in which the fuse plugs are triggered. Once the fuse plugs are triggered in practice, there may be some scope to modify the tables to allow "flow smoothing" around the fuse plug trigger levels for flood events that may occur prior to the re-construction of the fuse plugs.

Please let me know if you have any comments, otherwise the tables will be inserted into the updated manual for gazettal.

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Exhibit Number: 64 *[Signature]*