

**DEPARTMENT OF NATURAL RESOURCES & WATER  
OFFICE MEMO**

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**DATE:** 11 September 2007

**FROM:** Principal Engineer, Dam Safety

**TO:** Director, Dam Safety (Water Supply)

**SUBJECT:** FLOOD MITIGATION MANUAL, NORTH PINE DAM

**Recommendation**

The South East Queensland Water Corporation (SEQ Water) has submitted for approval as a Flood Mitigation Manual *Manual of Operational Procedures for Flood Releases from North Pine Dam (Revision 4)*.

I recommend that this document (copy attached) be approved as a Flood Mitigation Manual for a period of five years. A gazette notice is required to formalise the approval.

**Background**

The current Flood Mitigation Manual for North Pine Dam (Revision 3) was approved by gazette notice on 25<sup>th</sup> October 2002 for a period of five years i.e. up to 25<sup>th</sup> October 2007. SEQ Water as owner of North Pine Dam was required by s499 of the *Water Act* to review and if necessary update that Manual and submit it for approval prior to its expiry. An updated Manual (Revision 4) was received from SEQ Water with their letter of 5<sup>th</sup> September 2007 requesting that it be approved as a Flood Mitigation Manual.

The manual submitted contains a number of updates from the previous version. The updates mainly relate to such things as the introductory comments, the timing of reporting, and communication with other agencies. The actual operation of the gates at the dam remains as per the current opening procedures.

The estimated peak lake levels for the various Average Recurrence Interval events in section 3.3 have been updated based on the recently revised flood hydrology for the dam. It should be noted the critical duration PM PDF is now expected to overtop the dam by 0.19 metres even with all gates operating properly. The AEP of the dam crest flood is estimated to be approximately 1 in 2,000,000.

By adjusting the gate opening procedures it should be possible to keep the PMPDF from overtopping the dam but how significant the changes would need to be is an unknown. It might be worthwhile asking SEQ Water to investigate what gate opening procedure changes are needed to prevent overtopping of the dam in the PMPDF event. However this would not be possible before expiry of the current manual.

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## **Summary**

The manual submitted by SEQ Water for approval maintains gate operations as per the current procedures that have been in place for a number of years. These provide a good level of security from damages resulting from mal-operations of the gates so that I consider the same procedures should remain in place.

Flood mitigation manuals can be approved for periods not exceeding five years. It would seem reasonable to approve this manual for a five year period.

Ron Guppy  
**PRINCIPAL ENGINEER, DAM SAFETY**

