

**INQUIRY INTO ADEQUACY OF WATER STORAGES IN
NSW**

Organisation: NSW Dams Safety Committee

Date received: 20/07/2012

17 July, 2012

The Hon. Rick Colless, MLC
Parliament House
Macquarie St
Sydney NSW 2000

Our ref: 10.105.035

Your ref:

Dear Mr Colless,

Re: Standing Committee on State Development - Inquiry into Adequacy of Water Storages in New South Wales

The Dams Safety Committee (DSC) of New South Wales understands that you have been tasked by the NSW Primary Industries Minister, the Hon. Katrina Hodgkinson MP, with chairing an inquiry into the adequacy of water storages in New South Wales. The Inquiry will be carried out under the auspices of the parliamentary Standing Committee on State Development.

On behalf of the Committee, I would like to offer the Inquiry the assistance of the DSC with regards to dam safety matters and our associated collective detailed knowledge of the structures and locations of existing main dam storages within the State.

The DSC is an independent NSW government statutory authority created under the Dams Safety Act 1978. It also has statutory obligations under the Mining Act 1992. An outline of the DSC background, functions and operations may be found in the Guidance Sheet DSC1A available on our website, <http://www.damsafety.nsw.gov.au>

Amongst other functions, the DSC is required to undertake the following for NSW dams:

- Maintain a system of surveillance of prescribed dams;
- Examine and investigate the location, design, construction, reconstruction, extension, modification, operation and maintenance of the prescribed dams;
- Obtain information and keep records on dams; and
- Formulate measures to ensure the safety of dams.

The Committee "prescribes" those dams which, if they failed, would have the potential consequence to threaten downstream life, cause extensive property or environmental damage or otherwise have a severe impact on the public welfare. There are currently about 380 prescribed dams. These include the major water supply and irrigation storage dams, mines tailings and storage dams and flood retarding basins in urban areas. The DSC expects the number of prescribed dams in NSW to continue to grow and existing dams to require safety improvements to meet community expectations. One of the DSC's main aims is that the risks from dams to the community and to the environment will be tolerably low for prescribed dams.



The DSC consists of up to nine part-time members, with most nominated on the basis of their extensive experience and expertise in dams engineering and one member providing valuable mining experience input. The DSC members meet regularly and consult widely on all matters associated with dam safety. The major dam portfolio owners in NSW are represented on the DSC. The Committee is assisted by a professional staff, with the current staff of 10 selected for their technical expertise in dam safety, mining near dams, database and IT applications and administrative skills. Brief outlines of the Committee members and staff may be found on the DSC website.

The DSC takes an active role in setting the requirements for and audit over-viewing of the design and construction of new dams, possible new dams and upgrading of existing dams. Since its founding in 1978, the DSC has ensured that over 50 dams whose failure could have resulted in loss of life have been upgraded to a satisfactory standard based on the DSC's modifications to the Australian National Committee on Large Dams (ANCOLD) various Guidelines (accepted as best practice in Australia). Many of the Committee members are very active in ANCOLD circles and all DSC members and engineering staff keep up to date with current ANCOLD practices. These practices are in turn allied with international developments in dam engineering.

The DSC's approach to dam safety is goal-based as far as practicable, with its requirements set out in a series of Guidance Sheets that may be readily downloaded from our website. In 2006 the NSW Government, on the initiative and instigation of the DSC, endorsed a "Risk Management Policy Framework for Dam Safety". This is now being progressively implemented by the DSC. A risk based approach to dam safety management and planning of dams has the potential for overall lesser capital costs for dam upgrades and remedial works than for only a purely prescriptive and standards-based management approach.

To assist existing or prospective dam owners in the use and development of risk management for their assets, a risk based management framework has been incorporated within many of the DSC's redeveloped Guidance Sheets released in June 2010. The background to the DSC risk policy context and outline of the main principles are provided in the Guidance Sheet DSC1B. That DSC risk policy framework, including the societal risk requirements for existing and new dams, is at the forefront of modern dam safety management practice nationally and indeed internationally.

To seek the DSC's assistance and/or if you have any questions, please contact me (Mr Steve Knight, the Executive Engineer) on (02) 9895 7349 or (0403) 681 645 or steve@damsafety.nsw.gov.au Any of the DSC Executive Committee would be very willing to meet with you to discuss how we might be of assistance.

Yours faithfully,

Steve Knight
Executive Engineer,
Dams Safety Committee