



Dam safety—large referable farm dam assessment program

The collapse or failure of a large farm dam could endanger the lives of people who reside downstream. Since 1975, successive Queensland governments, through the Department of Environment and Resource Management (DERM) and its predecessors, have regulated such dams to ensure that people are not at undue risk if these dams fail.

Farm dams across the state will be inspected and assessed to determine if they pose a risk to people. Inspections will occur during the next two years as part of DERM's Large Referable Farm Dam Assessment Program.

Any dam assessed as having two or more people at risk in the event of a dam failure will be regulated through dam safety conditions applied under the *Water Supply (Safety and Reliability) Act 2008* (the Act).

Under the Act, dam owners are legally responsible for the safety of their dams.

Gully and ring dams

The failure of large gully-type dams usually pose the greatest risk. Many of these dams have not experienced a major flood.

Most of Queensland's gully dams have spillways only capable of passing floods which occur on average once in 20 to 50 years. If a major cyclone struck an area with a significant number of large farm dams (e.g. Burdekin, Mackay, Bundaberg or Biggenden areas), multiple dam failures could be expected, which might threaten lives and property.

Also of concern is the significant rate of failure of ring dams, either:

- at initial fill, often due to poor construction methods; or
- during refilling (generally after being empty for long periods when significant drying and cracking of embankments may occur).

Identifying dams for inspection

The first phase of the program involved the use of satellite imagery and aerial photography to identify water bodies across the state with a surface area greater than 0.25 hectares. Naturally occurring water bodies such as lakes, swamps, lagoons and billabongs are not relevant to the program.

It is anticipated that only a relatively small number of large farm dams identified for inspection will ultimately require a failure impact assessment to be completed.

Why dams are being assessed

Revised rainfall data released by the Bureau of Meteorology has indicated that floods are much larger in size than previously anticipated.

As a result, the spillway capacity of many farm dams may no longer be adequate. This is of particular concern for dams near the coast where there have been significant population increases in the downstream failure impact zone.

There has also been a proliferation of large ring dams constructed in the last 25 years, often with little consideration given to impact on surrounding populations should a failure occur.

The Queensland Government is committed to ensuring that all large farm dams in the state are regulated where there is a population at risk.

Further information

For more information about dam safety issues, phone DERM on (07) 3224 7672 or email the Office of the Water Supply Regulator:
<owsr.enquiries@nrw.qld.gov.au>.

General information regarding Queensland's water industry regulator can be found on the DERM website
<www.derm.qld.gov.au>.

The *Water Supply (Safety and Reliability) Act 2008*, *Integrated Planning Act 1997* and related regulations can be obtained from the Office of the Queensland Parliamentary Counsel website
<www.legislation.qld.gov.au>.

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For further information phone 13 13 04



