



Regulation of referable dams

This fact sheet explains referable water dam provisions under the *Water Supply (Safety and Reliability) Act 2008* (the Act).

Definition of a referable dam

Generally, a dam is a referable dam if in the event of a dam failure people are at risk. A dam failure occurs if there is:

- a physical collapse of all or part of the dam
- an uncontrolled release of any of its contents.

A failure impact assessment carried out by a registered professional engineer evaluates the number of people whose safety would be at risk if there was a dam failure.

The assessment, if accepted by the chief executive of the Department of Environment and Resource Management (DERM), will result in the dam being given a failure impact rating according to the number of people at risk:

- less than two people—no failure impact rating
- 2–100 people—category 1 failure impact rating
- more than 100 people—category 2 failure impact rating.

Only dams given a category 1 or 2 failure impact rating are referable dams.

The only type of weir that can potentially be a referable dam under the Act is one that has a variable control structure on its crest, such as an inflatable rubber bag or gates. Such a weir would need to be assessed as having a category 1 or 2 failure impact rating to be referable.

Rainwater tanks and water tanks constructed of steel, concrete, fibreglass, plastic or similar material are excluded from being referable dams under the Act. Hazardous waste dams are also excluded under the Act.

Referable dams licensed under the repealed *Water Resources Act 1989* remain referable until a failure impact assessment demonstrates there is no population at risk.

Failure impact assessments

Height and volume criteria generally determine whether a failure impact assessment must be carried out. Dam owners are responsible for having failure impact assessments carried out on their dams.

Assessments must be completed in accordance with DERM's *Guidelines for failure impact assessment of water dams*—April 2002.

Under the Act, a failure impact assessment is required for a proposed dam that meets the following height and volume criteria ('the defined size criteria'):

- more than eight metres in height; and
- having a storage capacity of more than 500 megalitres or
- more than eight metres in height; and
- having a storage capacity of more than 250 megalitres and a catchment area that is more than three times the dam's maximum surface area at full supply level.

The Act contains definitions of the terms height and full supply level.

Failure impact assessments for proposed dams must be completed, and accepted by the chief executive, before construction of the dam begins.

In addition, the chief executive has power under s. 343(2) of the Act to issue a dam owner with written notice requiring a failure impact assessment for any dam, regardless of whether the dam meets the defined size criteria. Such notices may be given for an existing dam or dams under construction. However, a notice can only be issued if the chief executive reasonably believes the dam will be given a category 1 or 2 failure impact rating as a result of the assessment.

All dams meeting the defined size criteria (except category 2 dams) must be failure impact assessed every five years.

Approvals for referable dams and works that increase storage capacity

Under the *Integrated Planning Act 1997* (IPA), the following work is assessable development:

- construction of a referable dam
- work that will increase the storage capacity of a referable dam by more than 10 per cent.

Approvals and applications for development permits for these works are made under the IPA, not the Act. The applications must be supported by evidence that DERM has accepted a failure impact assessment of the proposed dam in its completed form.





If the Act requires a water entitlement to be held to operate the dam, the development application must be supported by DERM's consent (as a resource manager) to the application being made.

Under IPA, the chief executive has assessment manager and concurrence agency powers in deciding referable dam development applications, including the power to impose conditions on development permits.

Dam owners are able to appeal against development permit conditions imposed or changed by DERM.

For more information visit the Department of Infrastructure and Planning website:
<www.dip.qld.gov.au>.

Safety conditions for referable dams

The chief executive has the power to apply and change safety conditions for existing referable dams.

Safety conditions are taken to be conditions attaching to the permit.

Dam owners are able to request a review of any safety conditions and are also able to appeal to the Planning and Environment Court against the review decision.

Directions to take emergency action

Under s. 359 of the Act, the chief executive has the power to give notice to an owner or operator of a referable dam to take stated action. Direction by written notice can be issued only if:

- there is a danger of the dam failing
- action is necessary to prevent or minimise the impact of the failure.

Directions can also be given for dams where no failure impact assessment has been carried out if the chief executive believes an assessment would find the dam referable.

Such notices are attached to the land where the dam is located, (other than land leased from the State under the *Land Act 1994*) binding the owner of the land, at the time it is issued, and any future owners.

If a person fails to comply with a notice without a reasonable excuse, the chief executive has the power to carry out the action or other actions to prevent or minimise the impact of a dam failure.

In such instances, the chief executive is able to:

- recover any reasonable expenses incurred when doing this
- make the expenses incurred a registered charge on the land (other than land leased from the State under the *Land Act 1994*).

Further information

The following fact sheets provide more information:

- W113—Failure impact assessment
- W114—Referable dams and development permits.

For more information about dam safety issues, 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 Act, IPA 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