

## 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 (the department), 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
- Two–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.

A weir cannot be a referable dam under the Act unless it has a variable flow control structure on its crest, such as an inflatable rubber bag or gates.

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Referable dams licensed under the repealed *Water Resources Act 1989* remain referable until a failure impact assessment determines there is no population at risk for the particular dam.

### 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.

Assessments must be completed in accordance with the department's Guidelines for Failure Impact Assessment of Water Dams.

Under the Act, a failure impact assessment is required for an existing dam or 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 its 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.

Section 343(2) of the Water Supply Act requires the owner of a dam that is not referable to have the dam failure impact assessed if, because of any works proposed to be carried out in relation to the dam, the dam will meet the above height and capacity criteria after the works are carried out.

If works are proposed that would increase the capacity of a non-referable dam (which meets the above height and capacity criteria) by 10 per cent then the owner of the dam must have the dam failure impact assessed (s. 343(3) of the Water Supply Act).

The owner of a referable dam must have the dam failure impact assessed if the storage capacity of the dam will increase by more than 10 per cent after proposed works are carried out (s. 343(4) of the Water Supply Act).

In addition, the chief executive has power under s. 343(5) 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 at intervals as set by the chief executive of the department. For more information on this aspect refer to fact sheet W113 on Dam Failure Impact Assessment.

## Approvals for referable dams and works that increase storage capacity

Under the *Sustainable Planning Act 2009* (SPA), the following work is 'assessable development':

- construction of a dam that meets the defined size criteria
- 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 SPA, not the Act. The applications must be supported by evidence that the department has accepted a failure impact assessment for the dam.

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

Under SPA, 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 the department.

For more information, visit the Department of Infrastructure and Planning website at: <[www.dip.qld.gov.au](http://www.dip.qld.gov.au)>.

## Safety conditions for referable dams

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

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

Dam owners are able to request an internal review of any decision applying to safety conditions and 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
- secure payment of the expenses incurred by registering a 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—Dam failure impact assessment
- W114—Referable dams and development permits.

For more information about dam safety issues, email the Office of the Water Supply Regulator at: <[owsr.enquiries@derm.qld.gov.au](mailto:owsr.enquiries@derm.qld.gov.au)>.

General information regarding dam safety in Queensland can be found on the department's website at <[www.derm.qld.gov.au/water](http://www.derm.qld.gov.au/water)>.

The Act, SPA and related regulations can be obtained from the Office of the Queensland Parliamentary Counsel website at <[www.legislation.qld.gov.au](http://www.legislation.qld.gov.au)>.

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For general enquiries contact the  
Queensland Government call centre 13 13 04  
or visit [www.derm.qld.gov.au](http://www.derm.qld.gov.au)