

Dams Safety NSW

Summary of Proposed Changes

Dams Safety Regulation 2019



July 2021

Who is Dams Safety NSW?

Dams Safety NSW is the State's independent regulator, responsible for the safety of dams in NSW. Established on November 1, 2019, under the *Dams Safety Act 2015*, Dams Safety NSW makes decisions on how the legislation is administered.

Legislative framework

The *Dams Safety Act 2015* (the Act) and the *Dams Safety Regulation 2019* (the regulation) commenced on 1 November 2019.

The regulation sets out the operational details for the Act, and safety standards that declared dam owners must comply with.

The regulation and standards are legislative requirements and penalties apply to declared dam owners who do not comply with the requirements.

Proposed dams safety regulation changes

Dams Safety NSW proposes changes to the regulation for public consultation in July 2021.

The proposed changes to the existing regulation would allow Dams Safety NSW to more efficiently administer the Act and would strengthen dam safety management aspects of the regulation.

The proposed changes are that:

- a) a declared dam owner will be required to provide the details of a contact person to Dams Safety NSW
- b) a declared dam owner will be required to nominate an individual for ensuring compliance with the dam safety management system
- c) a competent person will be required to carry out risk rating calculations (competency is currently not specified)
- d) for high and extreme consequence dams, an independent competent person will be required to review risk rating calculations (a review is currently not required)
- e) for high or extreme consequence category dams a panel of competent persons will be required to:
 - i. undertake safety reviews
 - ii. undertake a review of safety reviews
 - iii. check work involving dam designs(currently a single competent person is specified for the above reviews and checks).
- f) minor changes and clarifications are made to:
 - i. correct an error in the regulation that omitted 'environment' [from clause 12 (2) of the regulation] as one of the safety goals for the design of the dam safety management system and
 - ii. clarify that, for an existing dam, the lower safety threshold value for societal risk of 0.0001 applies to a major augmentation, not all major modifications.

Summary of changes introduced by proposed amendments to the regulation

The following tables provide a comparison of current regulatory requirements and the proposed changes to the regulation.

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Table 1. Nomination of a contact person for Dams Safety NSW

Current Requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
No current requirement – this is a new proposal	<p>Dams Safety NSW has had difficulty identifying appropriate contact details for the owners of some declared dams, resulting in delays and other challenges in the administration of the Act.</p> <p>It is proposed that a declared dam owner must provide Dams Safety NSW with the name and contact details of a contact person.</p> <p>It is proposed that the nominated person:</p> <ul style="list-style-type: none">• must be part of the dam owner’s organisation (whether a director, manager or other employee)• reasonably available to be contacted by Dams NSW for the purposes of Dams NSW exercising its functions in relation to the dam and• may be nominated in respect of one or more dams. <p>The owner of a declared dam must give Dams Safety NSW the name and contact details of the contact person for the dam within 14 days after the person is nominated.</p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

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Table 2. Nomination of an accountable individual for the dam safety management system

Current requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
<p>Clause 14 of the regulation states;</p> <p><i>(1) The owner of a declared dam must establish and implement a dam safety management system for the dam in accordance with this Part.</i></p> <p>There is currently no requirement for a declared dam owner to nominate an individual who is responsible for ensuring compliance with the dam safety management system</p>	<p>It is proposed that the dam safety management system specify an individual who is responsible for ensuring compliance with the dam safety management system.</p> <p>The individual:</p> <ul style="list-style-type: none">a) must be authorised by the declared dam owner to do all things necessary to ensure compliance with the dam safety management system andb) may be nominated for one or more dams. <p>The dam safety management system document for a dam must be updated within 14 days after a change in the name or contact details of the individual.</p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

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Table 3. Competent person for risk rating calculations

Current requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
<p>Clause 15 of the regulation states:</p> <p><i>Assessment of societal and individual risk rating</i></p> <p><i>(1) The owner of a declared dam (other than a proposed dam) must use the risk management framework under clause 14 to produce a written report on all foreseeable risks to the dam—</i></p> <p><i>(a) at least once every 5 years, and</i></p> <p><i>(b) if a major change is proposed to be made to the dam, at the time that the change is being designed that takes into account the proposed change, and</i></p> <p><i>(c) if required to do so by Dams Safety NSW.</i></p> <p><i>(2) The owner of a declared dam that is a proposed dam must use the risk management framework under clause 14 to produce a written report on all foreseeable risks to the dam at the time that the dam is being designed</i></p> <p><i>(3) In preparing a report under this clause, the dam owner must also set out in the report—</i></p> <p><i>(a) the societal risk rating and the highest individual risk rating of the dam calculated in accordance with the Societal and Individual Risk Rating Methodology published in Gazette No 137 of 8 November 2019, and</i></p> <p><i>(b) an explanation as to any assumptions made in making that calculation.</i></p> <p>There is currently no requirement for the societal risk rating to be carried out by a competent person and no requirement for the societal risk rating calculation to be reviewed by an independent competent person</p>	<p>It is proposed that the calculation for the assessment of the risk rating of a dam be carried out by a competent person.</p> <p>For high or extreme consequence dams it is proposed that the calculation for the assessment of the risk rating of a dam be reviewed by an independent competent person.</p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

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Table 4. Competent panel for safety reviews for high and extreme consequence category dams

Current requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
<p>Clause 20 (1) of the regulation states:</p> <p><i>(1) The owner of a declared dam must ensure that a safety review to assess the overall safety of the dam is undertaken by a competent person.</i></p> <p>and sub-clause 20 (6) states:</p> <p><i>(6) A safety review of a dam in any of the following consequence categories must be independently reviewed by a competent person who has not been involved in the safety review process—</i></p> <ul style="list-style-type: none"> <i>(a) extreme consequence,</i> <i>(b) high A consequence,</i> <i>(c) high B consequence,</i> <i>(d) high C consequence.</i> <p>There is no current requirement for the competent person carrying out a safety review to have all the required competencies for the safety review. There is also no requirement for more than one competent person to carry out the safety review to ensure coverage of all the relevant specialties.</p> <p>For the independent review of the safety review, there is no current requirement for the independent competent person to have all the required competencies for the independent review.</p>	<p>For high or extreme consequence category dams, it is proposed that the safety review must involve a panel of not less than three competent persons, rather than an individual competent person, as is currently required.</p> <p>In addition, for high or extreme consequence category dams, it is proposed that the review of the safety review be conducted by a panel of competent persons.</p> <p>The panel must, collectively, have persons with experience, training or professional qualifications in relation to each of the relevant specialties in relation to the dam.</p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

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Table 5. Competent panel for design checks for high and extreme consequence category dams

Current requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
<p>Clause 24 of the regulation states: <i>24 Competent person must check work involving dam design</i></p> <p><i>The owner of a declared dam that is classified as being in any of the following categories must ensure that work involving designing the dam (or any major modification to the dam) is reviewed by a competent person who has not been involved in the work and is independent of any person who has carried out the work—</i></p> <ul style="list-style-type: none"><i>(a) extreme consequence,</i><i>(b) high A consequence,</i><i>(c) high B consequence,</i><i>(d) high C consequence.</i> <p>There is no current requirement for the competent person carrying out a check of a design to have all the required competencies for the check.</p>	<p>For high or extreme consequence category dams, it is proposed that the check of the design must involve a panel of not less than three competent persons, rather than an individual competent person as is currently required.</p> <p>The panel must, collectively, have persons with experience, training or professional qualifications in relation to each of the relevant specialties in relation to the dam.</p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

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Table 6. Minor changes and clarifications:

1. correction to the goals of the dam safety management system and
2. clarification that the lower safety threshold applies to a major augmentation to the dam

Current requirement in the <i>Dams Safety Regulation 2019</i>	Proposed changes to the regulation
<p>Clause 12 (2) of the regulation states: <i>The dam safety management system must be designed to be used by the owner of the dam as the primary means of ensuring, so far as is reasonably practicable, the safety of persons and property is not put at risk from the dam.</i></p> <p>The word 'environment' was inadvertently omitted from this clause of the regulation.</p> <p>Clause 15 (4) of the regulation states: <i>If the societal risk rating or highest individual risk rating for a dam is higher than the following (the safety threshold), the dam owner must forward a copy of the report to Dams Safety NSW as soon as practicable after the report is produced -</i></p> <p>(a) <i>societal risk rating for an existing dam (except as provided by paragraph (b))—0.001,</i></p> <p>(b) <i>societal risk rating for a proposed dam or for an existing dam that is to be subject to a <u>major change</u> - 0.0001,</i></p> <p>(c) <i>individual risk rating for an existing or proposed dam - 0.0001.</i></p>	<p>It is proposed that the regulation to be amended as follows:</p> <p><i>The dam safety management system must be designed to be used by the owner of the dam as the primary means of ensuring, so far as is reasonably practicable, the safety of persons, property and the environment is not put at risk from the dam.</i></p> <p>It is proposed that the regulation to be amended to replace 'major change' with 'major augmentation' as follows:</p> <p><i>If the societal risk rating or highest individual risk rating for a dam is higher than the following (the safety threshold), the dam owner must forward a copy of the report to Dams Safety NSW as soon as practicable after the report is produced:</i></p> <p>(a) <i>societal risk rating for an existing dam (except as provided by paragraph (b))—0.001</i></p> <p>(b) <i>societal risk rating for a proposed dam or for an existing dam that is to be subject to a <u>major augmentation</u>¹ - 0.0001</i></p> <p>(c) <i>individual risk rating for an existing or proposed dam - 0.0001.</i></p> <p>It is proposed that this amendment would commence on 1 November 2021.</p>

¹ *Augmentation* means a modification to a declared dam that is made to extend the function of the dam. The augmentation to the dam usually creates a significant new benefit. Some examples include a permanent raising of the operating storage level of the dam; changing the dam/spillway configuration to cater for a new purpose such as flood mitigation.

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Table 7. Competent persons for risk rating calculations, consequence category assessments, safety reviews, independent reviews of safety reviews and dam design reviews

The following table summarises the current and proposed regulatory requirements for the use of competent persons for risk rating calculations, consequence category assessments, safety reviews, and design checks.

The proposed changes to the current requirements are highlighted yellow in the table; the table depicts the requirements if the change proposals are implemented.

Dam Consequence Category	Consequence Category by competent person	Review of Consequence Category by independent competent person	Risk Rating calculation by competent person (<i>currently competency not specified</i>)	Review of Risk Rating calculation by independent competent person (<i>new requirement</i>)
Very low	X		X	
Low	X		X	
Significant	X		X	
High C	X	X	X	X
High B	X	X	X	X
High A	X	X	X	X
Extreme	X	X	X	X

Dam Consequence Category	Safety Review by competent person	Safety Review by competent panel (<i>currently by competent person</i>)	Review of Safety Review by independent competent panel (<i>currently by independent competent person</i>)	Check of dam design by independent competent panel (<i>currently by independent competent person</i>)
Very low	X			
Low	X			
Significant	X			
High C		X	X	X
High B		X	X	X
High A		X	X	X
Extreme		X	X	X

Where can I find further information?

For more information call (02) 9842 8073 or email us at info@damsafety.nsw.gov.au.

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The information contained in this publication is based on knowledge and understanding at the time of writing (**July 2021**). However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department of Planning, Industry and Environment or the user's independent adviser.