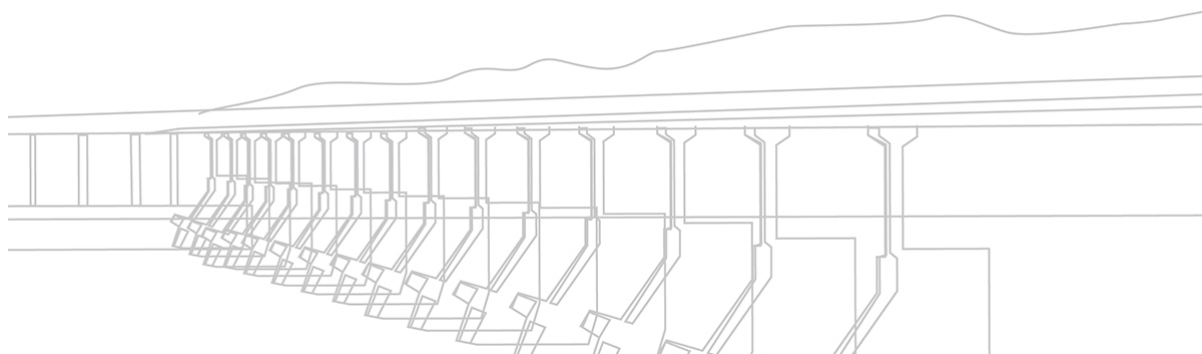




Dams Safety

Dams Safety Focus



February 2022



Message from the CEO

The second half of 2021 was a busy period for Dams Safety NSW - despite NSW public health orders requiring our team to cut back on planned site visits and work from home. Our audit program and education activity switched to a virtual desktop operation.

From 1 July 2021 to 31 January 2022 we completed 28 audits, identified 37 non-compliances, and made 83 improvement recommendations. In November 2021 we delivered two webinars, one on "Preparing your annual safety standards report", the other on "Preparing risk reports". These webinars had a combined attendance of 256 people with 95% of respondents saying the webinars met their expectations and

would recommend them to their colleagues. Visit our website for a list of [past and upcoming webinars](#).

Since July 2021 we have had eight incidents reported under clause 19 of the Dams Safety Regulation. Three reports related to issues with gates not operating as intended. Dams Safety NSW encourages all dam owners to review operations and maintenance plans and associated actions to ensure critical mechanical and electrical components such as gates operate as intended when needed.

Furthermore, all dam owners should be aware of [incident reporting requirements](#) and be familiar with how incidents must be reported.

Finally, I am pleased to announce that Dams Safety NSW is close to launching its first on-line operator level training course: "Surveillance of embankment dams".

The course will be available through TAFE's on-line training platform by June 2022. It is a non-accredited course that will assist those needing to demonstrate competence in carrying routine inspection and monitoring of their dams. If participants successfully complete the course, they will be eligible to be assessed for competency. Dams Safety NSW will be emailing all stakeholders with more detail closer to the launch date.

Chris Salkovic
CEO, Dams Safety NSW

Annual Safety Standards Report due 31 March 2022

Under the *Dams Safety Act 2015*, every year declared dam owners must publish a report that demonstrates their compliance with the dams safety standards. This is a new legislative requirement. The information that you provide in your annual Safety Standards Reports allows Dams Safety NSW to prioritise our compliance activities.

Your first annual Safety Standards Report must be submitted to Dams Safety NSW by **31 March 2022**. The report must demonstrate your compliance with the safety standards prescribed in the *Dams Safety Regulation 2019* at 31 December 2021.

Dam owners who do not submit their Safety Standards Report by 31 March 2022 may face a fine under Section 18 of the Dams Safety Act 2015.

For more information about the annual Safety Standards Report, including the information that will be required in the first report, read our [fact sheet](#).

If you have any questions, please call **DSNSW Governance and Assurance Manager, Peter Boyd, on 0418 259 984** or email info@damsafety.nsw.gov.au.

Provide Dams Safety NSW with a declaration of competency

The [Dams Safety Regulation 2019](#) requires that a 'competent person' perform the following tasks for declared dams:

- Consequence category assessments (clause 7 of the regulation)
- Consequence category assessment reviews (clause 7.4 of the regulation)
- Safety reviews and reviews of safety reviews (clause 20 of the regulation)
- Dam design reviews (clause 24 of the regulation)

It is important that dam owners, or the person completing these works, provide a [signed declaration](#) that states they are a 'competent person' for these tasks.

Dam owners should also provide the signed declaration when required to submit completed report/s to Dams Safety NSW.

Read our [fact sheet](#) to find out more about what to consider when choosing a consultant to help prepare your dam safety reports.

Compliance audits update

Dams Safety NSW's compliance priorities for July-December 2021 focussed on auditing:

- Extreme, High A, B, C consequence category dams
- Dams where there is active design, construction or major modification
- Dams with wet tailings placement (mining), spillway gates and filling operations (pump fill dam)
- Dams with poor compliance history.

Our auditors provide declared dam owners, and those responsible for the safety of declared dams, with clear information about the dam safety rules, and how to ensure they are complying with dams safety legislation.

Key issues identified as a result of these audits include:

- Deficiencies in the content of emergency plans and operations and maintenance plans
- Deficiencies in dam owners' asset management systems
- Most new declared dam owners did not have effective change management processes in place
- Most dam owners don't have good awareness of their plans, relying heavily on consultants
- Half of all audited dam owners were issued with a non-compliance related to visual inspections not being conducted according to their procedures.

DSNSW is actively following up on outstanding non-compliances as per our regulatory policy. Dams Safety NSW employs a graduated and proportionate approach to the noncompliance to ensure that dam owners are taking appropriate corrective action to work towards compliance with the Act and associated Regulation.



Dams Safety NSW staff inspecting Blackbutt Dam's new spillway in December 2021.

Reducing Blackbutt Dam's consequence category:

Shellharbour City Council's success story

Declared dam owners often ask Dams Safety NSW how they can reduce the consequence category of their dam.

A dam's consequence category is a classification of potential impacts resulting from a potential dam failure, however rare that may be. The consequence categories take into account risk to life, estimated total infrastructure cost, estimated environmental impacts, and estimated health and social impacts.

The higher a dam's consequence category, the higher the dam's risk to the downstream community - and the more work a dam owner must do to ensure the dam's safety.

The risk associated with potential dam failure is expressed using seven consequence categories:

- Very low – where consequences from dam failure would be considered negligible;
- Low, Significant, High C, High B and High A; and
- Extreme – where consequences from dam failure would be considered severe.

Shellharbour City Council, in NSW's Illawarra region, not only successfully reduced the risk of one of their dams, they also managed to have the dam on Dams Safety NSW's list to be de-declared.

Blackbutt Dam is located in Blackbutt Forest Reserve, Shellharbour, in the Illawarra. Built in 1957 by the then Water Resources Commission, Blackbutt Dam was originally designed as the water supply for a farm. When it was originally built, the dam had a 6-metre high, 100-metre long embankment wall. NSW Department of Housing acquired much of the land surrounding the dam and forest in the early 1980s. Shellharbour City Council have since been using the dam for environmental and recreational purposes.

The consequence category of the dam was classed 'High A', due to the high potential for damage and loss of life to downstream residents should the dam wall fail.

Adam De Clouett, Manager Floodplain and Transport for Shellharbour City Council, said there were two main reasons Council wanted to change the design and

operating characteristics of the dam:

“First and foremost, we wanted to reduce the risk to the downstream community, and reduce the cost of maintaining and operating the dam - costs that are ultimately borne by the community.

“It was, however, important that we retain a similar looking dam and habitat - albeit on a smaller scale - for the camp of Grey Headed Flying Foxes, a vulnerable species, which rely upon this water source.”

In January 2018 Council submitted their plan to Dams Safety NSW to reduce the consequence category of the dam by lowering the embankment and widening the spillway.

Work to be carried out by the Council's contractor included:

- Reducing the permanent pool level of the dam by 2 metres, and reducing the permanent storage volume of water from 21.8 ML to 7.7 ML. This reduction in the storage available reduced the volume of water contributing to a dam break wave should a dam failure occur;
- Reducing the height of the dam crest by 2 metres;
- Modifying the downstream embankment to add additional fill material, reducing the existing slope and incorporating filter drains to reduce the risk of dam failure;
- Protecting the downstream embankment face with reinforced turf;
- Removing and stockpiling topsoil from the dam embankment; and
- Restoring the site, including replanting selected areas around the dam.

Work on Blackbutt Dam began in November 2020 and was completed in July 2021 at a final cost of approximately \$640,000. Blackbutt Dam is due to be de-declared by Dams Safety NSW in April 2022.



A cut was made in Blackbutt Dam's embankment wall to install a low flow pipe.



Thank you for your ideas and feedback

In October last year, we asked subscribers to this mailing list to complete a survey to help us understand how we could help declared dam owners comply with the new legislation.

About 100 of you responded from a range of different of organisations – including mines, local government, state government and private industry. Respondents told us it is important to comply with dams safety legislation and that they would like to receive information about and assistance with the regulatory requirements to help them comply.

The most popular of the educational products we asked about in the survey were:

- audit templates and self-assessment checklists
- fact sheets and case studies and
- webinars, masterclasses and videos

Many respondents also thought information prepared especially for their senior executive would be useful.

In response, we've started developing a suite of new education resources and materials based on your feedback. The first of these will be a webinar focusing on developing a Dam Safety Management System. You will be notified when this event is scheduled and the notification will also appear on our [website](#).

We welcome your ongoing feedback on education needs. If you have ideas for resources or materials that would help your organisation to comply, please send them to communications@damsafety.nsw.gov.au.



Serious incidents or injuries that occur at, or in relation to, a declared dam must be reported to Dams Safety NSW as soon as possible after the incident by calling **0403 681 645 (24 hours/7 days a week)**.

A written report of an incident in a form approved by Dams Safety NSW must be given to Dams Safety NSW no later than 72 hours after the incident, even if an oral report of the incident has already been given. [Click here to complete the online incident report form](#).

Contact us

Dams Safety Focus is our newsletter on dam safety in NSW. If you have any questions or feedback contact us at:

Dams Safety NSW

Phone: (02) 9842 8073

Email: communications@damsafety.nsw.gov.au

Visit our website - Dams Safety NSW

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