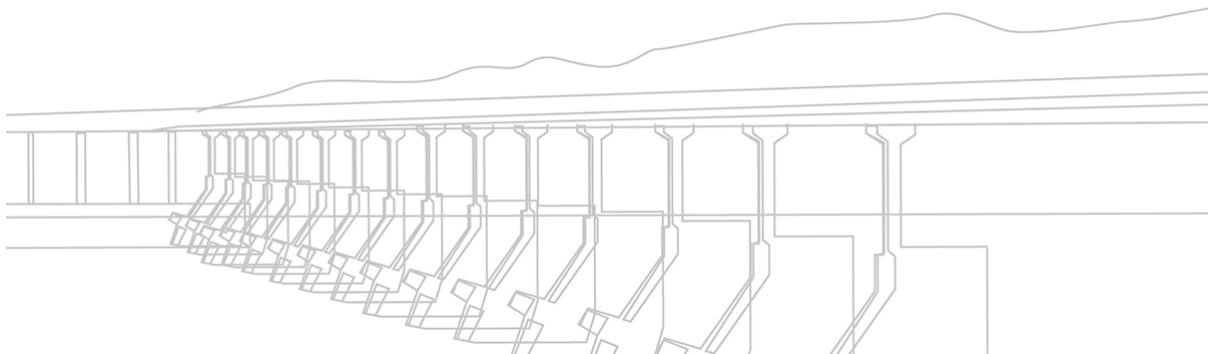




Dams Safety

# Dams Safety Focus



October 2021



## Message from the CEO

Our audit program is making a difference. We are receiving a lot feedback from dam owners and dam safety practitioners that audit findings are giving them a good start on a roadmap to make improvements. So far, the area requiring the most improvement is documenting planned monitoring and surveillance activity. 'Keep calm and document everything' is the catchcry from Dams Safety NSW.

On another note, the 5.9-magnitude earthquake that occurred in Victoria on 23 September was a timely reminder of how important it is to have up-to-date dams safety emergency plans - and carry out a visual inspection of your dam following a nearby earthquake. It is also important to inspect your dam for a number of weeks

afterwards, as issues may not always be noticeable straight away. Thankfully, the earthquake did not cause damage to Victorian dams - most likely because of the quake's remote location. Similarly, there were no reports of impacts to NSW dams.

Finally, I am pleased to announce the appointment of Julie Garland McLellan to the Dams Safety NSW Board. You can read all about Julie's expertise in this edition. I would also like to take this opportunity to thank outgoing Board member, John Stacpoole, for his valuable input, particularly in the area of mining. John's tenure expires on 31 October 2021.

**Chris Salkovic**  
**CEO, Dams Safety NSW**

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## **Please complete our survey!**

Part of our role as a regulator is to provide guidance to declared dam owners on how to comply with dam safety rules. Currently we do this through a range of channels, including webinars, fact sheets, guidelines, web content, face-to-face presentations, audits and, of course, this eNewsletter. Some of you may also remember we asked for feedback on training options for declared dams earlier in the year. We're excited to say we are using your responses to design a set of accredited online courses for competent persons – and will let you know as soon as they are open for enrolment. Now we're looking at other ways we can assist.

Please help us select worthwhile new activities, and improve our existing ones, by completing this [survey](#) by **Tuesday 2 November**.

The survey is anonymous and takes about 10 minutes, depending on your answers.

We'd like to get responses from a range of different roles within an organisation, so please feel free to share the link with colleagues who have responsibilities related to declared dams. For more information about the survey, contact us on 9842 8073.

TAKE THE SURVEY

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*Remarkable for its Egyptian inspired architecture, Cordeaux Dam is one of four dams that make up the Upper Nepean water supply scheme south of Sydney.*

## REGISTER NOW: FREE Dams Safety NSW webinars

Dams Safety NSW has two upcoming FREE webinars: one on preparing your dam's Risk Report, and the other on Annual Safety Standards Reports. Please register for each one separately.

### [Preparing your dam's Risk Report](#)

**Thursday 4 November 2021 @ 11.30am-12.30pm**

Under the *Dams Safety Regulation 2019*, all declared dams require a Risk Report that is specific to each dam. A Risk Report is a written report that dam owners must produce on all foreseeable risks to their declared dam.

Join **Peter Boyd, DSNSW Governance and Assurance Manager** and **Jason Porter, Principal Dams Engineer for DNSW**, who will explain all the requirements related to risk reports, and answer any questions.

CLICK HERE TO REGISTER

### [Preparing your dam's Annual Safety Standards Report](#)

**Wednesday 24 November 2021 @ 11.30am-12.30pm**

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. Your first annual Safety Standards Report must be submitted to Dams Safety NSW by **31 March 2022**.

Join **Peter Boyd, Governance and Assurance Manager** with Dams Safety NSW, as he explains all the requirements related to the Annual Safety Standards Report and answers any questions you may have.

[CLICK HERE TO REGISTER](#)



*DSNSW auditors at Jindabyne Dam, one of 16 major dams that comprise the Snowy Hydro Scheme.*

## **What happens during a dam safety audit?**



Dams Safety NSW has a team of auditors that audit declared dams. Our audit program is risk-based and reaches about 50 dam owners a year. The program helps to:

- identify actions to remove or lessen dam safety risks
- determine how dam owners are meeting the requirements, and make them aware of the corrective actions needed
- identify appropriate education and enforcement actions, in line with our [regulatory policy](#).

Before an audit, Dams Safety NSW staff provide dam owners with an audit plan, and request relevant documents. Generally, we make arrangements to visit dam sites, but during COVID lockdowns, we conduct audits virtually.

On the day of the audit, the audit meeting can take anywhere between 1-6 hours, depending on the complexity of the sites and the information available. Dam Safety NSW staff will have reviewed any documents sent by dam owners beforehand, so the audit team uses the meeting to ask questions about the systems and procedures in place. A minimum of two Dams Safety NSW representatives will conduct the audit. The audit team also visit dam sites when it is important to witness operational processes and practices and interview operational staff.

During the audit we seek to understand not only if risks, plans and processes are documented and data is being collected and reported, but also how safe is the system overall. For example, how is data being collected and analysed, and by whom? Who is double-checking it, who is reviewing and approving it, and who is responsible for making any changes indicated? Are maintenance, operation and emergency procedures being communicated to the right people, and practised? During the audit, the audit team may request that further evidence be provided to them after the session. At the end of the meeting, a summary of preliminary findings is provided to the dam owner.

After the audit, the audit team reviews any additional information sent through by the dam owners and prepares a final audit report that includes:

1. recommendations for improvements
2. any non-compliances detected
3. evidence and observations that show a requirement has been addressed

The final report is sent to the dam owner outlining the findings and a timeframe for closing out any non-compliances and providing evidence of their actions back to

## Audit update

- During the 2020/2021 financial year Dams Safety NSW conducted 54 audits of declared dam owners which involved 119 onsite visits.
  - Our risk-based audit program assesses the requirements under the *Dams Safety Act 2015* and *Dams Safety Regulation 2019*. It examines the performance of declared dam owners to ensure the safety of their dams.
  - A total of 133 non-compliances were identified and 229 recommendations were made during these audits.
  - Dams Safety NSW is actively following up and working with dam owners on outstanding non-compliances as per our regulatory policy, to ensure that appropriate and timely corrective actions are taken.
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*New DSNSW Board member Julie Garland McLellan with team members at the Cook Colliery, west of Rockhampton, QLD*

## Dams Safety NSW welcomes a new board member

Dams Safety NSW is pleased to welcome Julie Garland McLellan as our newest board member.

Julie grew up in South America where her family were involved in copper mining and refining. She was fortunate to be inspired by the Majes projects that built dams and hydro-power stations, providing reliable safe water, irrigated agriculture and power to people who had previously been involved in subsistence farming.

After travelling to England to study engineering, which was not an option for women in Peru at the time, she won a scholarship from the Federation of Civil Engineering Contractors and spent three months on irrigation projects in Swaziland, during this time she witnessed first-hand the disaster of a small dam collapse that devastated a local community.

Combining her love of water engineering and hydrogeology led to a career that involved travel and (to an engineer) exciting projects around the world.

After being promoted to run the Spanish subsidiary of Sir Alexander Gibb & Partners, Julie studied an MBA and met her husband. When he returned to Australia she followed and began work with BHP as a Corporate Planner at the Melbourne head office. She followed this with three years as General Manager Energy and Natural Resources at KPMG before moving to Sydney and becoming Managing Director of Gamesa Energy's Australian Subsidiary. She then followed her passion into the boardroom and has now served on 18 different boards, mostly in the engineering, resources, and construction sector.



# All about emergency exercises

Under the *Dams Safety Regulation 2019*, owners of declared dams must ensure that staff involved in the operation of the dam conduct an emergency exercise at least once every 3 years.

The [Australian Institute for Disaster Resilience](#) describes an exercise as a controlled, objective-driven activity used for testing, practising or evaluating processes or capabilities.

Exercises can be theoretical classroom/desktop activities under some circumstances, but for owners of high and extreme consequence dams, a practical exercise is also needed every five years.

## Why conduct emergency exercises

Emergency exercises help to enhance the capability of staff to respond to emergencies. They can evaluate processes, identify flaws or assumptions in emergency planning that need addressing, and provoke discussion, ideas and continuous improvement. Your emergency plan should explain how you will conduct emergency exercises, including:

- how they are scheduled and planned
- how they are carried out and with whom
- how you will record and action any recommendations for improvement after you have completed the test exercises and
- how you will keep records.

## Tips for emergency exercises

1. When planning the exercise, identify who will be involved in developing the exercise concept, who will participate in the exercise itself and who will be part of the de-brief and recommendations.
2. Involve all staff that operate the dam, as well as people who might fill in for those roles if the substantive employee is away.
3. As far as is reasonably practicable, the practical emergency exercises should involve relevant agencies identified in the emergency plan for the dam.
4. You may wish to consider engaging a facilitator to assist with planning and implementing the exercise and reporting the findings.
5. Choose credible scenarios that are specific to your site/s and risks of failure. Consider the impact certain events may have on other infrastructure, property and services at the same time, and what that might mean for your scenario.



6. Follow the steps set out in your emergency plans, and if gaps or issues are identified, document these.
7. Wherever you can, physically go through the processes and steps outlined in your emergency plan, for example ring the people you plan to contact in an emergency, and when it is time to give the all-clear. Don't forget that incidents need to be reported to Dams Safety NSW. This can be part of your exercise as well. Please clearly communicate to the Dams Safety NSW 24x7 Incident Phone Number that the purpose of the call is a test or exercise only.
8. Will you issue communications in the event of an emergency, and if so, do you have pre-prepared materials? If yes, share those during the exercise and practice what you would do with them.
9. More tips and guidance on how to conduct an exercise can be found in the [Australian Institute for Disaster Resilience Handbook](#).

In addition to emergency exercises, good practice would also include an annual seminar, or 'run-through' of emergency procedures, with key onsite staff – to help familiarise them with emergency preparedness and to assist in identifying the equipment, resources and materials required to respond in an emergency. An annual seminar may also help dam owners identify gaps in their Emergency Plan, particularly to ensure that changes in contact details are updated as soon as practicable after the change.

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## Annual Safety Standards Report due 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 (DSNSW), as the Regulator, 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.

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](mailto:info@damsafety.nsw.gov.au).

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# Report an incident

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.](#)



*Aerial view of Origin Energy's Eraring Power Station coal ash dam at Lake Macquarie, NSW*

## DSNSW and EPA join forces on regulation of dams

Dams Safety NSW attended a Parliamentary inquiry into '[Costs for remediation of sites containing coal ash repositories](#)' in October 2020. A key recommendation was for Dams Safety NSW to collaborate with the NSW Environment Protection Authority (EPA) to create a Memorandum of Understanding (MoU) for the regulation of all declared dams, but specifically coal ash dams.

The purpose of the MoU is to make clear the responsibilities and functions of each agency with regard to declared dams, to establish a framework for cooperation on joint operational activities, and to facilitate information sharing.

Ultimately, the MoU aims to ensure that the agencies' regulatory oversight of dams aligns, and that information on the safety of declared dams is shared, in particular, their operation, emergency response and potential environmental impact.

**Note:** coal ash is the mineral by-product left-over from burning coal in power stations to generate electricity. It is mainly made-up of silicon and other minerals, but can sometimes contain high concentrations of heavy metals and other contaminants. In NSW, coal ash has historically been stored in dry emplacements or wet coal ash dams.

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## 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](mailto:communications@damsafety.nsw.gov.au)

**Visit our website - Dams Safety NSW**

Dams Safety NSW, Locked Bag 5022, Parramatta, NSW 2124

[Unsubscribe](#)