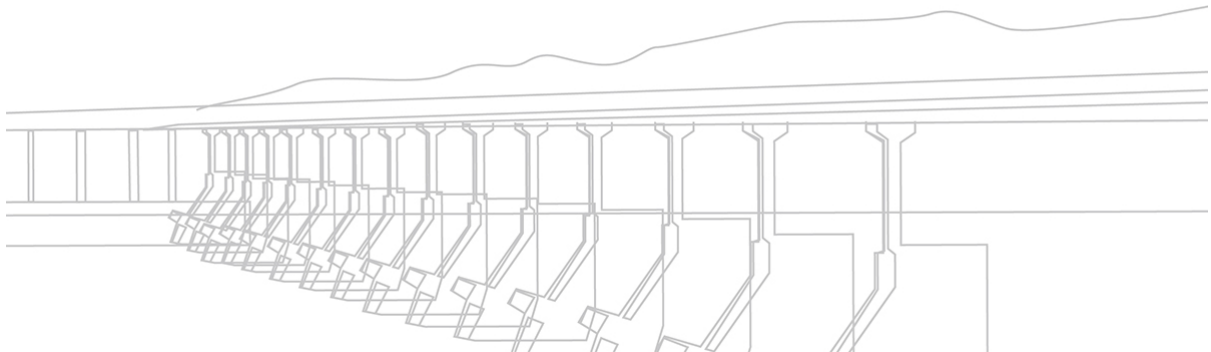




Dams Safety Focus



February 2021



Lessons from Queensland's Paradise Dam failure

There is much to be learned from an incident. None more so than the failure of a dam. In September 2019, Paradise Dam, located about 80km south west of Bundaberg in Queensland, failed. Serious concerns about the structural stability of the dam meant that the water levels in the dam were lowered to 42% of its maximum capacity.

The word 'failure' does not always mean the sudden release of water. In fact, failure, as defined in the [Dams Safety Regulation 2019](#), can mean **a dam ceasing to perform its functions**. This was the case with Paradise Dam, a failure resulting in a large repair bill to make it safe after only 15 years in operation.

The Paradise Dam failure was the subject of a Queensland Government-initiated independent Commission of Inquiry during 2020. The inquiry concluded with the release of a report with eight key recommendations, many centred around the importance of independent technical reviews throughout the lifecycle of a dam.

Dams Safety NSW's regulatory framework has a strong alignment to many of the recommendations made, including the need for independent reviews and a regulator to routinely monitor compliance.

I encourage owners of declared dams and dam safety professionals to read the Executive Summary of the [Paradise Dam Commission of Inquiry Report](#).

Chris Salkovic
CEO, Dams Safety NSW



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](#).

REGISTER NOW: FREE Dams Safety NSW webinars

Dams Safety NSW has two upcoming FREE webinars: one on Operations and Maintenance Plans and the other on Emergency Plans. Please register for each one separately.

Preparing your dam's Operations and Maintenance Plan

Thursday 15 April 2021 @ 11.30am-12.30pm

Under the *Dams Safety Act 2015*, all declared dams are required to have an Operations and Maintenance Plan. The Operations and Maintenance Plan should

be tailored to the type, size and complexity of your dam. Join Dams Safety NSW's **Peter Boyd, Manager of Governance and Assurance, Jesse Jones, Principal Auditor, and Jason Porter, Principal Dams Safety Engineer** for an overview of the requirements for Operations & Maintenance Plans for declared dams, as detailed in the Dams Safety legislation.

REGISTER NOW

Preparing your dam's Emergency Plan

Wednesday 5 May 2021 @ 11.30am-12.30pm

Declared dam owners must prepare and implement an appropriate Emergency Plan for their dam/s. Dams Safety NSW's Peter Boyd, Manager of Governance and Assurance, Jesse Jones, Principal Auditor, and Jason Porter, Principal Dams Safety Engineer will give an overview of:

- the requirements for Emergency Plans for declared dams, as detailed in the Dams Safety legislation;
- how often these plans are required to be reviewed by the legislation.

The team will be happy to answer all your questions .

REGISTER NOW



Missed our 'Mining near declared dams' webinar?

If you didn't get the chance to join our 'Mining near declared dams' webinar live last year, you can watch the recorded session [here](#).

Chris Salkovic, the CEO of Dams Safety NSW, **Peter Boyd**, Manager of Governance and Assurance and **Bill Ziegler**, Manager Mining Impacts, gave an overview of:

- how the dams safety legislation, introduced in November 2019, deals with mining near declared dams; and
 - the review of Notification Areas surrounding declared dams.
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Using a consultant to assist with dam safety reports

If you own a simple declared dam you may be able to prepare your reports with no specialist knowledge. However, if you have a more complex declared dam your reports will need to include more detailed information. In this case, you should consider employing a specialist or consultant to prepare your reports.

NOTE: Dams Safety NSW cannot recommend specific consultants or specialists to help prepare your required reports.

How do I find a consultant?

You can search online for consultant engineers or other specialists who may be able to help with the preparation of dam safety reports.

Ask your local council

Your local council may have a list of engineering consultants or specialists who work in your area.

Professional associations

Professional associations may be able to help you choose a suitable consultant by providing contact details for their members. Organisations that may be able to help include:

- [Australian Water Association](#)
- [Engineers Australia](#)
- [Australian National Committee on Large Dams \(ANCOLD\)](#)

Ask other dam owners

Ask for a recommendation from declared dam owners you know who have previously used a consultant to prepare their reports.

What to look for in a consultant

Depending on how complex your dam is, the person preparing your dam safety report may need a variety of skills. You should look for a person who has previous experience working on dam safety reports or studies for a similar dam. You may need to employ a range of specialists to cover all the requirements.

When you are choosing a consultant, it is important to consider:

- Do they have experience preparing dam safety reports that meet Dams Safety NSW requirements (eg. Operations and Maintenance Plans, Emergency Plans, Risk Reports, Consequence Category Assessments, and Safety Reviews)? You could ask for examples of previous reports they have prepared and ask for references or contact details of previous clients.
 - What relevant qualifications or accreditation do they have?
 - Do they have appropriate insurance cover?
 - Do they have a professional and ethical reputation? Check if they are a member of a professional organisation and ask for references.
 - Can they complete projects on budget and on schedule? Ask for references from other clients.
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An integrated approach to dam auditing

Googong Dam (pictured above) is one of the more unique dams in Australia. The 66-metre high earth and rockfill embankment dam is located southeast of Queanbeyan in NSW, but supplies water to the ACT, bringing it under the oversight of two regulators: Dams Safety NSW (DSNSW) and the ACT Utilities Technical Regulator.

Late in 2020, DSNSW conducted a detailed audit of Googong Dam. To ensure a collaborative approach, and to avoid duplicating regulatory activities, DSNSW auditors met with the ACT Utilities Technical Regulator beforehand to plan the audit. Information gathered during an audit allows DSNSW to identify where action may be needed to avoid or mitigate dam safety risks.

Owned by Icon Water, Googong is classified as an extreme consequence category dam, the highest of seven consequence categories, because of its location. Consequence categories are assigned to a dam according to how much a dam failure would endanger people, cause damage to property, the environment or public welfare.



What documents must declared dam owners review and when?

Under the [Dams Safety Act 2015](#) and the [Dams Safety Regulation 2019](#) there is a range of documentation that declared dam owners are required to review regularly. Check out our fact sheet, [Documents at a glance for declared dam owners](#), for a quick snapshot of what documents dam owners should review and when.

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

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

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