

Summary of consultation responses

Guidance Note: *'The requirement to reduce dam safety risks so far as is reasonably practicable – 'SFAIRP'*

Guidance Note consultation

In early August 2024, Dams Safety NSW emailed dam owners and dam safety consultants, informing them of the consultation process for the draft guidance note: *'The requirement to reduce dam safety risks so far as is reasonably practicable – 'SFAIRP'*.

The draft guidance note consultation process included two information sessions, via 'Teams', for dam safety consultants and dam owners. Dam safety consultants attended an information session on 14 August 2024 and dam owners attended an information session on 15 August 2024.

The draft guidance note was then emailed to stakeholders, an on-line form was available for comment/feedback on the guidance note and stakeholders were given until 9 September 2024 to provide comment/feedback.

Consultation results summary

There were 10 on-line form responses. Stakeholders provided four more detailed comments on the guidance note via email.

On-line feedback form responses

Is the draft guidance note clear and easy to understand?

7 responses were 'yes'

2 responses were 'somewhat'

What parts of the guidance note are not clear?

2 respondents referred to:

- the lack of clarity on how often the SFAIRP declaration would need to be submitted and
- the agency taking a fundamentally wrong approach to SFAIRP – the respondent considered SFAIRP should be viewed as a limiting and protective term for consultants and owners.

Is there any information you feel is missing from the guidance note? What information is missing?

5 respondents answered 'yes'; the 5 responses are included in Table 1.

Do you agree that the guidance note helps you understand how to demonstrate that your dam's safety risks have been assessed and reduced so far as is reasonably practicable (SFAIRP)?

7 respondents answered 'yes', 1 answered 'disagree', and 1 answered 'neither agreed or disagreed'.

Do you have any other comments about the draft SFAIRP guidance note?

The 2 responses that are relevant to the guidance note are included in Table 1.

Table 1

Detailed feedback on the draft SFAIRP guidance note and Dams Safety NSW comment

Note: Some detailed comments and suggestions referred to the SFAIRP policy position or dam safety legislative requirements, which were not the subject of the guidance note consultation and have not been included in Table 1.

Feedback/issue/suggested change	Dams Safety NSW Comments
The Guidance Note could be strengthened by a summary on the differences between the 1978 Act and 2015 Act, including how the community risk appetite could be included as an additional key element (i.e. the "eighth") to the seven key elements and how these key elements relate to the Regulation (i.e. clause 14).	The 1978 Act did not include any references to the need for a risk management approach for dams safety, so a comparison within the guidance note has not been included. Community risk appetite is covered in 'relevant matter 3' and also in the recommendation that suggests a dam owner conduct community consultation about a declared dam's risks. A footnote has been added to the guidance note, linking the factors with clause 14 of the Regulation.
Further consultation is warranted on the elements in the SFAIRP Declaration before it is implemented, including whether any regulatory reform is required to support this idea.	The SFAIRP declaration will initially be introduced for dams with a risk rating above the safety threshold. As stated on the guidance note, Dams Safety NSW will <u>request</u> a dam owner complete the declaration to demonstrate the dam's risks have been reduced appropriately. The majority of the elements in the declaration are existing regulatory requirements.

Feedback/issue/suggested change	Dams Safety NSW Comments
Better guidance on how “grossly disproportionate” is considered in the context of the Treasury Guidelines and how this interacts with community risk appetite. Clear and objective criteria would assist dam owners to apply SFAIRP measures up to the point that the cost of these measures becomes grossly disproportionate to the benefits.	The dam owner is responsible for determining the appropriate level of ‘disproportionality’ for their dam. The circumstances for each declared dam are different, so it is not practical to provide prescriptive criteria in the guidance note.
Better guidance on what would be considered foreseeable risks, including whether climate change is one of the risks and which climate change scenarios would be applicable	Dams Safety NSW expects dam owners and their consultants to include all risks that could cause dam failure. Any increased risk due to climate change would be an input to the studies required for the relevant flood failure modes. Additional guidance will be considered when updating the fact sheet on risk reports and the ‘Societal and individual risk rating Methodology’.
Greater clarity is needed on the meaning of “risk”, as it is used within the Guidance Note. For instance, should it be taken to mean the direct impacts caused by dam failure, such as the impact on downstream communities, environment and infrastructure? Or should a holistic interpretation of risk be adopted, with consideration of associated or secondary risks such as the loss of water supply security, loss of recreational amenity, and reduced flood management capabilities?	The <u>consequences</u> of dam failure, such as loss of recreational amenity, etc., should be included in the cost-benefit calculations associated with a failure mode risk. The tables in the Consequence Category Methodology provide guidance on the types of impact that should be considered.

Feedback/issue/suggested change	Dams Safety NSW Comments
SFAIRP is really “But only SFAIRP”. I.e. the whole purpose of the term is to put appropriate limits on safety interventions. It should be viewed as a limiting and protective term for consultants and owners, and DSNSW should see their broader role as custodians of standards that govern public expenditure. Amendment suggested throughout the guidance note to reflect this.	The Regulation wording reflects the minimum risk treatment requirements that dam owners must implement to treat risks SFAIRP. This also limits the regulator’s mandate – Dams Safety NSW cannot require anything beyond this. As the SFAIRP term is used universally in other safety regimes (and OSFAIRP is not used), the guidance note has not been amended to refer to ‘only SFAIRP’. However, a footnote has been included in the guidance note to reflect the ‘only’ wording and intent of the Regulation.
The language is often overly and unnecessarily absolute and fervent. E.g. “Eliminate or minimise” should be replaced with “cost-effectively mitigate”. Change ‘eliminate or reduce the risk’ to ‘mitigate’ throughout the guidance note.	‘Mitigate’ refers to reducing the impact/consequence of a risk. ‘Eliminate or reduce the risk’ is in line with risk terminology and is the more precise term. Referring to treating the likelihood and/or consequence of the risk.
The terminology is loose and should be much more precise in terms of Risk terminology. Hazard, Consequence, Likelihood, Risk-cost, etc	The terminology is consistent with accepted risk management practice and reflects the wording of the Regulation
It would be good to have some examples of how OSFAIRP is applied to justify not undertaking works, as well as where it does lead to an additional intervention	The suggestion has merit, but not accepted to maintain the brevity of the guidance note.
<i>‘In the context of dam safety, ‘reasonably practicable’ means that which is, or was at a particular time, reasonably able to be done to eliminate, or minimise, a dam failure risk’...</i> SFAIRP assessments are not applied to previous times? It is what is reasonable now.	The SFAIRP determination for a dam may have been made some years before a subsequent examination of the relevant risk report and the SFAIRP determination. What may be ‘reasonably able to be done’ may have changed after the original determination.
<i>‘It is a well-established concept used in high consequence, <u>low probability</u> safety scenarios such as major hazard facilities, nuclear safety operations and transport’</i>	The suggested addition: ‘low probability’ has been included in the guidance note

Feedback/issue/suggested change	Dams Safety NSW Comments
<i>'To reduce a risk SFAIRP means a dam owner has taken every possible risk reduction measure unless that can reasonably be justified based on an assessment of the cost, time, or effort involved is grossly disproportionate relative to the potential harm prevented'.</i>	The guidance note original wording is the same as other safety jurisdictions' SFAIRP guidance. Dams Safety NSW aims to be consistent with other safety jurisdictions.
Various suggested amendments to the 'seven relevant matters' when considering what is reasonably practicable ('hazard' for risk; 'mitigate' for 'eliminate or reduce', etc)	Suggestions mostly not accepted – the relevant matters are based on established safety practice across jurisdictions and the ANCOLD guideline on risk assessment. One suggestion: 'whether a measure would cause a net increase in risk' is included in the guidance note.
<i>'Dams Safety NSW also suggests dam owners consult with the community about a declared dam's risks when evaluating dam risk treatment measures.'</i> For what reason? To better understand the consequence, to confirm the likelihood of hazards based on expected downstream activity?	Dams Safety NSW will publish a fact sheet on community consultation on risk after publication of this guidance note. Consultation with the community is important to confirm acceptability of risks and is also a requirement of ISO AS 55001. The previous Dams Safety Committee guidance sheet DSC21 on this topic had been in place for over a decade before commencement of the new Act.
<i>'In summary, what could be done should be done only unless it is reasonable and defensible in the circumstances for the dam owner to do something less if it can be justified based on a risk assessment and cost-benefit analysis'.</i>	Original wording retained as it reflects the accepted SFAIRP wording across safety jurisdictions.
Add the following note to the cost-benefit section: <i>'The concept of risk-cost should be applied in evaluating the cost-benefit E.g. in a simple analysis an event with an annual probability of occurrence of 1:100,000 with a PLL of 5 has a risk cost of $5 \times \\$5.3m \times 10^{-5} = \\265. I.e. annual expenditure over \$265 per year or up-front NPV equivalent (~\$7,000@4%), is not justified.'</i>	Providing analysis examples has been considered but rejected in the interests of brevity. Cost-benefit calculations need to include other costs in addition to costs associated with loss of life.

Feedback/issue/suggested change	Dams Safety NSW Comments
Add the following underlined: <i>'the more likely the risk is, and/or the greater the harm that may result from the risk, the less weight should be given to the cost of reducing the risk (refer to the risk-cost calculation above)'</i>	Original wording retained as it reflects the accepted SFAIRP requirements across safety jurisdictions and the risk-cost calculation has not been added to the guidance note.
Add the following to the cost-benefit section: <i>'Conversely, as custodians of public infrastructure, dam owners with higher capacity to pay should not incur unnecessary expenditure to mitigate risks lower than can be justified relative to other infrastructure owners (e.g. roads, rail, public health, education)'</i>	This suggested addition has been included in the guidance note (amended slightly)
The Guide refers to <i>'global approaches to SFAIRP'</i>. Should use local guidelines so far as possible. How are international approaches applicable in Australia? Are international situations the same as NSW? I wouldn't think so.	The guidance note is mainly based on local guidelines. These guidelines are, in turn, consistent with global approaches and local and global legal precedent.
Benefits (i.e. cost of failure or risk reduction due to failure) and costs are subjective or difficult to estimate. Some risks in dams are not practicable to quantify. Professional/competent judgement is a far more robust and pragmatic approach in managing an asset.	This is included as part of the <i>'other major considerations'</i> as part of <i>'risk-informed decision making'</i> within clause 14 (5) of the Regulation
<i>'In exercising judgement about what is 'reasonably practicable' to eliminate or minimise a risk, a dam owner needs to consider:'</i> Subjective and scrutable. All professionals would have a different opinion on where this line is. It would be better, more pragmatic and less onerous to standardise the line.	Risk-informed decision making must consider the results of risk analysis and other major considerations influencing the safety of a dam. Defendable decisions may involve some degree or subjectivity.
Guidance note Page 5 - Sub Heading: <i>Must a dam owner reduce risk so the risk rating is below safety threshold?</i> (last sentence). Please clarify if the Dam Safety NSW is going to direct the dam owners, if required, to address the risks <i>'within a specific time'</i>	Additional wording added to the guidance note to reflect the wording of the Regulation.

Feedback/issue/suggested change	Dams Safety NSW Comments
I think a more comprehensive list of references, with links if possible, like the ones provided in the document to WHS, would make it a lot easier for people to research the more appropriate information. It is easy to get lost in the volume of information out there. DSNSW can focus people on what they feel is more relevant and useful. Easy references mean people are a lot more likely to actually read it	Agreed. Links to other SFAIRP guidelines are included in the guidance note.
Better clarification through a guidance example/flowchart diagram to explain the SFAIRP process and its application to understand whether it's a process applied during the risk management framework rather than a separate document/process.	A note has been added to the introduction to emphasise this.
We note the dot point in the guidance sheet "<i>the more likely the risk is, and/or the greater the harm that may result from the risk, the less weight should be given to the cost of reducing the risk</i>". Is this simply suggesting that the higher the likelihood or consequence, the larger the benefit will be and therefore the greater expenditure can be warranted?	The dot point does reflect the larger risk/benefit ratio, but also emphasises the need for a dam owner to be mindful of the need to pay particular attention to risks that are at the higher end of likelihood and consequence.
The provision of the link to the NSW Treasury guidelines for completing Cost Benefit Analysis (CBA) is very useful. We note the discussion in the session that Dam Safety NSW, nor the NSW Treasury note, have any requirements in terms of what could be considered 'grossly disproportionate' and this decision ultimately resides with the dam owner. We feel however, that some 'guiderails' relating to this would be very useful within the guidance document to assist dam owners to make this decision.	It is difficult to provide more detailed 'guiderails' that apply to the varying risk scenarios that each dam's risk profile presents.

Feedback/issue/suggested change	Dams Safety NSW Comments
Given that the risk review process is intended to be ongoing (with the formal report renewed every 5 years) I believe the proposed declaration template needs to be more explicit as what context the declaration is being made in. This would then also demonstrate what context the declaration doesn't apply to. For example a general manager of a Council will not be willing to sign a declaration for addressing future risks and measures not identified at the time of the declaration.	The declaration is made on the basis of what is known at the time of the declaration, that is at the time of the risk report. The declaration wording has been amended to clarify this.
I assume that the Dam owner's declaration will be required to re-submitted periodically after the proposed initial phased rollout, however this is not clear.	The declaration will be made at the time the risk report is finalised (normally every 5 years) and will initially be applicable to dams above the safety threshold.
Is it important to include this info about DSMS (in the 'Context')?	The context section builds the regulatory background for the SFAIRP requirements so is a necessary part of the guidance note.
The first sentence of '<i>Where is SFAIRP included in the regulation?</i>' is long and hard-to-understand. Delete?	The full text of this section reflects the Regulation requirements leading to the SFAIRP requirement.
I find the overuse of footnotes distracting.	The footnotes allow the main text to be more concise.
Why is it important to draw attention to the number of relevant matters in the question? Delete?	Agreed- the guidance note has been amended
Editorial changes suggested to the 'relevant matters to consider	Agreed- the guidance note has been amended
Where does this definition of '<i>community</i>' come from? It suggests community is everybody	The definition refers to those who might be affected by a dam failure, which will change, depending on the type of dam and ownership. For example, those who bear the cost of a tailings dam upgrade are different to those who bear the cost of a council-owned retarding basin.

Feedback/issue/suggested change	Dams Safety NSW Comments
Add to the paragraph on consultation on dam owner on dam safety risk: <i>‘Communities affected by dams, especially those downstream, have a significant stake in the responsible management of dams and the preparedness of dam owners and emergency agencies to respond to floods. An informed and prepared community can provide valuable input to dam owners and enhance the ability of emergency managers to reduce the impacts of flooding’</i>	The guidance note has been amended with suggested abridged text. Emergency management consultation is covered by the Regulation and Emergency Management guideline.
What does the footnote to ‘community concerns about the risk’ mean? [footnote: ‘Such as the community’s degree of understanding of, and control over, the risk’]	The footnote aligns with the wording of the relevant section of the ANCOLD Risk Assessment Guideline
‘A dam owner’s SFAIRP responsibilities in its risk-informed decision making <u>needs to be considered</u> in the light of the civil liability provisions of NSW law.’ “Needs to be considered ‘ by whom? The dam owner? If yes, this sentence should be rewritten in active not passive	The guidance note has been amended to clarify and rewritten in active language.
Remove: ‘This feature was a cornerstone reform in the new dam safety regime introduced in 2019’ from ‘The cost of available measures: cost-benefit analysis’ section.	The wording emphasises the importance of cost-benefit analysis introduced by the Dams Safety Act 2105.
‘a dam owner cannot expose people to a lower level of protection because they are in a lesser financial position than another dam owner’ Confusing legalese - rewrite in plain English	This wording aligns with the wording of important case law precedent and should be included to align with other industry SFAIRP guidance.
‘A dam owner must <u>promptly</u> notify Dams Safety NSW if a dam’s risk rating exceeds a safety threshold’. “Promptly” is meaningless without a timeframe.	The Regulation states ‘must forward a copy of the report to Dams Safety NSW as soon as practicable after the report is produced’. ‘Promptly’ summarises that concept.
Are there many different safety thresholds?	The guidance note has been amended to align with the three safety ratings and the single safety threshold.

Feedback/issue/suggested change	Dams Safety NSW Comments
<i>'Dams Safety NSW will assess the reasonableness of a dam owner's proposed risk reduction measures when it reviews a dam owner's SFAIRP declaration and risk report.'</i> How will DSNSW assess the reasonableness? Using what criteria?	This is undertaken on a case-by-case basis as part of the review, so criteria cannot be stated here.
Editorial suggestions in the <i>'Dam owner's declaration dam risks are reduced 'SFAIRP'</i> section, including provision of a hyperlink to the template	The guidance note has been amended to reflect the intent of the edits.