

Position paper

June 2020

Improving Dam Safety Management in South Australia



Government
of South Australia
Department for
Environment and Water

Contents

1	Introduction.....	1
2	Background.....	1
2.1	Scope.....	2
2.2	Current regulation of dam construction	2
2.3	Current maintenance arrangements.....	3
3	Elements of the dam safety management policy	4
3.1	Education and awareness about dam maintenance and management.....	5
3.2	A dam failure risk rating method for dams.....	6
3.3	Emergency Action Plans.....	6
3.4	A register of dams that is the authoritative source of information about the location, size and failure risk rating of dams.....	7
3.5	A duty to maintain all existing and future dams and an ability to require rectification, reparation or modification of dams	7
3.6	Provide guidelines for the level of competency of practitioners advising on siting, design, construction, modification and maintenance of dams	9
3.7	Provide guidelines relating to the siting, design, construction, modification and maintenance of dams that consider both water resource management impacts and flood risks.....	10
3.8	Consolidation of all aspects of regulation of in scope dams under the Landscape SA Act.....	10
3.9	Summary of proposed actions.....	12

1 Introduction

The position paper for **Improving Dam Safety Management in South Australia** has been developed to address concerns about dam safety management in South Australia and in response to the failure or near failure of dams during floods in the spring of 2016. It builds on the draft position paper released for public consultation in February 2019.

The draft position paper proposed a framework with a number of elements to improve dam safety management in South Australia for discussion. Some elements were considered essential and broadly supported such as education and awareness about dam safety and management in emergencies, but others, in particular those requiring legislative change and/or increasing obligations for landholders, required input from stakeholders before they could be finalised and implemented.

The elements of the dam safety policy in this position paper have been adjusted based on stakeholder feedback and further investigation of a number of options.

The following dam safety management outcomes are sought:

- Roles and responsibilities for dam safety management are clearly articulated, agreed and understood by all relevant parties and are able to be implemented.
- Dam safety management risks for both existing and new dams are managed by landholders and do not significantly increase the potential impacts of floods in South Australia.

The position paper outlines the elements of a dam safety management framework, to deliver improved dam safety management and identifies actions to move towards implementing these elements. The position paper was endorsed by the State Emergency Management Committee and the outcomes, framework and proposed actions noted by the Emergency Management Council of South Australia

This position paper is one of three papers finalised as a result of the consultation process. The other two are:

- **Improving Levee Bank Management in South Australia**
- **Priorities for Improved Flood Management in South Australia**

2 Background

A dam is defined as a barrier or structure across a stream, river or waterway or on sloping ground to confine and control the flow of water. Dams vary in size from small earth embankments, often for farm use, to large concrete structures for example for water supply. Dams are built for various purposes including:

- water supply
- irrigation
- flood control
- environmental controls (eg mining tailing dams).

South Australia has over 22,000 farm dams in the Mount Lofty Ranges alone. Management of dam safety in South Australia has been of concern for some time. In 2015, the University of South Australia was commissioned by the Flood Inquiries Task Force to develop an options paper on dam safety management. The paper identified the need for policy and explored policy options to provide for adequate dam safety management assurance to the community.

In South Australia, there is significant scope for improvement of dam safety management regulation. According to the report by the University of South Australia, dam failure flood risks are significant and exist at both the individual and cumulative levels within catchments. During the flood event in 2016, it was clear that dam design and maintenance is often not adequate: many spillways (if they exist) have inadequate flood capability and there are often structural issues with dam walls. A significant number of dams failed or threatened to fail during this event. This created an unnecessary large flood response burden for the South Australian State Emergency Service (SASES) to manage dams that are failing or threatening to fail. A sudden uncontrolled dam release may endanger human life or downstream property, or damage the operation of the dam.

2.1 Scope

The dams in scope for this position paper are outlined in table 1.

In scope	Out of scope
Irrigation dams	SA Water Reservoirs
Stock and domestic dams	Tailings dams
Other storage dams requiring a permit under the <i>Natural Resources Management Act 2004</i>	Wastewater storage and evaporation lagoons regulated under the <i>Environment Protection Act 1993</i>
Detention and retention basins	
Wastewater dams not regulated under <i>Environment Protection Act 1993</i>	
Dams on public land that are not SA Water reservoirs	

Table 1: Scope of proposed dam safety management framework in South Australia

SA Water owns the majority of large dams and voluntarily complies with Australian National Committee on Large Dams (ANCOLD) guidelines. Although dam safety is not directly covered by the *Water Industry Act 2012*, under the powers established for the Office of the Technical Regulator (OTR), Clause 68 does require SA Water to develop and maintain a Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP) to cover all SA Water assets, including dams. The OTR audits SA Water annually to ensure it complies with the safe operation of its assets in accordance with SRMTMP. These arrangements already provide for effective regulation and auditing of SA Water managed large dams and reservoirs.

Wastewater storage, evaporation lagoons and tailings dam are also out of scope, as they are regulated by specific legislation:

- Wastewater storage and evaporation lagoons: *Environmental Protection Act 1993* (EP Act)
- Tailings dams: *Mining Act 1971*.

2.2 Current regulation of dam construction

The construction of a dam, or modifying, enlarging or removing a dam, is generally authorised under the *Landscape SA Act 2019* (Landscape SA Act) with a water affecting activity permit. Applications for permits are assessed against the relevant water affecting activities control policy or policies in a water allocation plan.

A dam will not require a water affecting activity permit if it is considered development under the *Planning Development and Infrastructure Act 2016* (PDI Act) and requires development approval.¹ The development application for such dams will also be assessed against the water affecting activity policies through a referral of the development application to the authority issuing the permits. It is often unclear whether subsequent modification of such dams requires a development approval or a water affecting activity permit.

Water affecting activity policies can specify matters that should be taken into account when assessing an application for a permit and make provision for conditions that a permit or other approval should be subject to. Currently, the water affecting activity policies focus on water resource management and watercourse management issues, but can, and sometimes already will, consider a number of dam safety aspects (spillways, freeboard).

There are no design standards in the building code or guidance in the South Australian Planning Policy Library or Planning and Design Code that councils can refer to when assessing development application for dams. Some councils have included their own guidelines in development plans.

One of the reasons for the regulatory gap in dam safety management is that no authority has assumed clear responsibility for the assessment of matters relating to safety. It is important to consider the expertise, capacity, mandate and potential liability of approval authorities when considering improvements to dam safety management.

2.3 Current maintenance arrangements

Dam owners are considered responsible for the management of their dams and accountable for the damage these dams may cause if they fail. However, this responsibility is in the realm of public liability and a general duty of care. There is limited awareness of this responsibility among landholders. There is no single mechanism for State or local government to ensure owners of dams maintain their dams. It would be possible to include conditions on water affecting activity permits, but not all dams have been constructed under a permit. The same issue applies to development approval conditions.

Neither the PDI Act nor the Landscape SA Act provide an effective enforceable ongoing obligation to ensure all dams are properly maintained. The Landscape SA Act has made no material changes to the control of dam maintenance compared to its predecessor the *Natural Resources Management Act 2004* (the NRM Act). There are no powers for the South Australian State Emergency Service (SASES) under the *Fire and Emergency Services Act 2005* (FES Act) to ensure dam safety is managed, except during an emergency or immediate threat of an emergency. This is unlike the powers of the Country Fire Service (CFS) under the FES Act, which allow the issue of a notice (delegated to Local Government Fire Prevention officers) requiring the landholder to take specified

¹ Activities classified as development under the *Planning, Development and Infrastructure (General) Regulations 2017* include The excavation or filling (or excavation and filling) of land for the purposes of a dam, other than—
(a) where a levee or mound with a finished height greater than 3 m above the natural surface of the ground is to be formed; or
(b) where a retaining wall which retains a difference in ground levels exceeding 1 m is to be used or formed; or
(c) where the dam is in—
(i) a designated flood zone, subzone or overlay; or
(ii) in any other zone, subzone or overlay identified under the Planning and Design Code for the purposes of this subparagraph;
or
(d) where the dam is to have a capacity exceeding 5 megalitres.

action to remedy the fault or to protect the land or property on the land, within such time as may be specified in the notice.

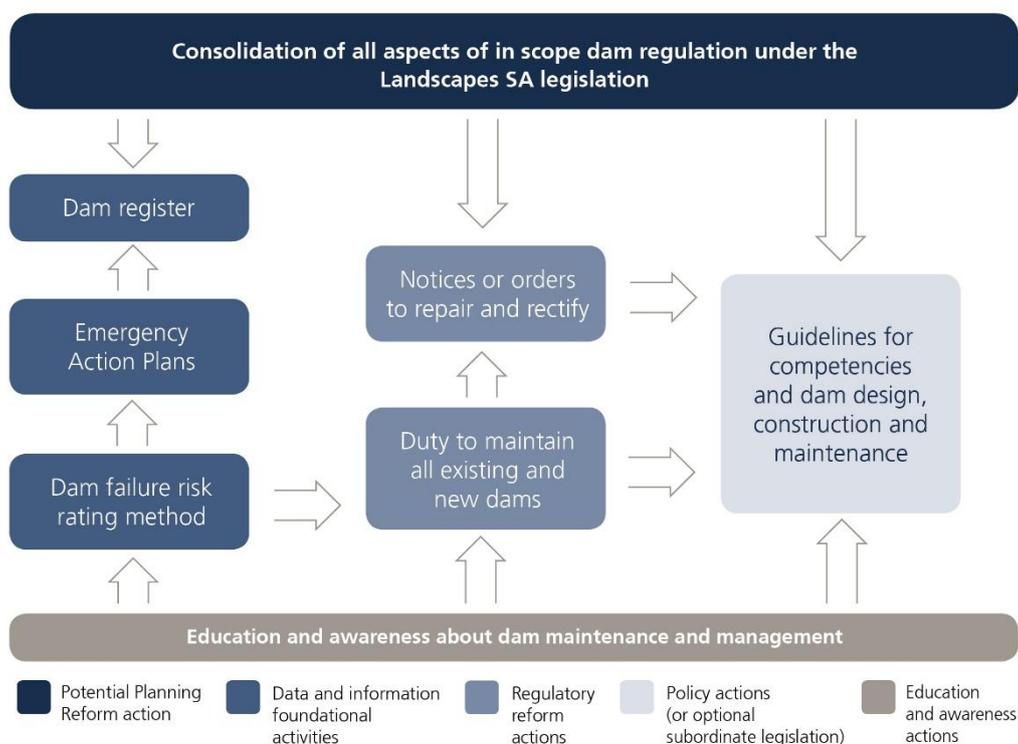
3 Elements of the dam safety management policy

The elements of the dam safety management policy consider the recommendations from the University of South Australia report and the approaches and experiences in managing dam safety interstate. In developing the elements, alignment between management of dams for water resource management and dam safety has been sought to streamline processes and reduce red tape. Stakeholder feedback on the proposed elements has also been considered before settling on the final policy elements. The elements aim to create a fit for purpose approach tailored to the risk of a dam failing. The elements aim to provide flexibility to increase the level of regulation over time if evidence shows that this is necessary.

There are several elements for the proposed dam safety management framework. The elements are listed below and illustrated in Figure 1.

1. Education and awareness about dam maintenance and management.
2. A risk rating method for dam failure, that considers the likelihood of a dam failing and the consequences from dam failure.
3. Promote adoption of emergency action plans for existing high risk dams, informed by the dam failure risk rating.
4. A register of dams that is the authoritative source of information about the location, size, and dam failure risk rating.
5. A duty to maintain all existing and future dams and an ability to require rectification, repair or modification of dams as part of future amendments to the Landscape SA Act.
6. Guidelines (with an ability to regulate through future amendments to the Landscape SA Act for the level of competency of practitioners advising on siting, design, construction, modification and maintenance of dams that consider both water resource management impacts and flood risks.
7. Guidelines relating to the siting, design, construction, modification and maintenance of dams that consider both water resource management impacts and flood risks.
8. Consolidation of all aspects of regulation of in scope dams under the Landscape SA legislation.

Figure 1. Dam safety management policy elements



Each element is discussed in more detail below.

3.1 Education and awareness about dam maintenance and management

Education and awareness about dam management in South Australia has focused mainly on water resource management aspects of dams and the need to equitably share water. As part of this, information is provided on siting, design and construction of dams. This information can be complemented with information relating to dam safety management.

Landholders should be aware of their responsibilities and potential liability in case of dam failure. *Private Dam Maintenance and Management in Emergencies Guidelines* have been developed by the Department for Environment and Water (DEW) and the SASES with input from other agencies and the Local Government Association. The guidelines inform landholders and the SASES volunteers about how to respond to dams that are at risk of failing and what can be done to avoid this situation. These guidelines also form the basis of an annual awareness raising campaign about dam safety management and dam owner responsibility in South Australia, similar to campaigns to get properties ready for the bushfire season.

Stakeholder consultation broadly supported continued education and awareness about dam safety management. The following actions are proposed:

1. An annual dam safety awareness campaign for dam owners
2. Improve awareness and capacity of SES volunteers about dam safety management through pre-season briefings and targeted training

3.2 A dam failure risk rating method for dams

A method for assigning failure risk ratings to dams will be scoped by DEW for development. It will identify the likelihood of a dam failing based on factors such as dam design and catchment size, and consequence of dam failure, based on factors such as area of impact and presence of dwellings, roads, other buildings or infrastructure.

DEW has investigated a method for developing an initial risk rating using spatial information and existing information about dams as a first pass for prioritisation of dams based on the work done in Victoria (see: [Victorian consequence screening tool for dam failure](#)). This method requires further work as it needs more information on dam wall height and topography to produce useful results.

The intent is for the ratings to provide a basis for identifying dam safety management requirements for existing and proposed dams. The level of risk will relate to the level of rigour in requirements for the siting, design, construction, modification and maintenance, ensuring effective and fit for purpose dam safety management.

In the long term, risk ratings may need to be reviewed as changes in land use downstream of the dam may impact on the risk rating, for example if there has been a subdivision and additional dwellings have been constructed, or new dams have been constructed downstream of the current dam, creating a cumulative risk. Ideally, implications of dam failure should be considered when an application for development downstream is assessed.

Responses during stakeholder consultation were supportive of the development and use of a dam failure risk rating method. Some concerns were raised about the feasibility of developing and regularly updating a risk rating for all dams and that the focus may need to be on priority dams and locations in the first instance.

Proposed further action:

3. Further develop and trial a dam failure risk rating method in a pilot catchment and consult with dam owners, SASES, Landscape Boards and local government on outcomes.

3.3 Emergency Action Plans

Owners of dams with a higher dam failure risk rating should develop an emergency action plan that sets out actions in case a dam fails or threatens to fail. The *Private Dam Maintenance and Management in Emergencies Guidelines* include a Rapid Risk Assessment and Emergency Action Plan template.

Stakeholder consultation indicated support for Emergency Action Plans, but it was acknowledged that ensuring compliance with a requirement to develop such plans will be difficult. As a first step the adoption of Emergency Action Plans will be pursued through targeted education and awareness raising. The need to regulate the development of Emergency Action Plans will be considered if targeted education and awareness raising does not prove to be effective.

Proposed further action:

4. Undertake targeted education on Emergency Action Plans for owners of high risk dams in the pilot catchment.

3.4 A register of dams that is the authoritative source of information about the location, size and failure risk rating of dams

A register of dams in South Australia linked to a spatial database would be beneficial for both water resource management and emergency management purposes.

Such a register would build on existing work undertaken to develop the datasets, tools and arrangements to support implementation of water allocation plans and water affecting activity policies and demonstrate compliance with the Murray-Darling Basin Plan. Consolidation of these datasets is needed to deliver a state-wide dam register. The dam safety management elements can then be progressively built into this register.

Stakeholder consultation indicated broad support for development of a dam register. Most responses considered that state and local government, including emergency services and Landscape Boards, should have full access, while landholders and the wider community should have more limited access.

Other information suggested to be stored in a dam register included a spatial depiction of the dam failure impact area, (estimated) age of dam, maintenance records and information relevant to the CFS to access water for firefighting. The observation was made that the information can have implications for land sale values and insurance premiums, which in turn may create incentives for good dam maintenance. The opportunity to link the dam register requirements for flood management with those for water resource management was recognised, but it was acknowledged that this may require different levels of access to information. It was pointed out that the cost of developing and maintaining such a register requires some further thought.

Proposed further action:

5. Develop a draft pilot register for a catchment or a number of catchments in the Mount Lofty Ranges with good data, seek feedback from potential users and then finalise a pilot register and use it to inform a business case for a statewide register.

3.5 A duty to maintain all existing and future dams and an ability to require rectification, reparation or modification of dams

While it is recognised that dam owners have responsibilities and liabilities in case of dam failure, more explicit requirements for dam maintenance from both a water resource management and dam safety management perspective are considered necessary to ensure roles and responsibilities are clear and that there are options beyond education and awareness raising to pro-actively manage dams at risk of failing during a flood.

To create alignment with other aspects of dam safety management, the proposed option is to introduce a general duty to maintain dams in future amendments to the Landscape SA Act, similar to the duty to maintain a well and powers of the relevant authority to require remedial work to be carried out. The actual maintenance requirements will be linked to the dam failure risk rating. Maintenance requirements may range from self-assessment to more complex reports by qualified engineers, depending on the rating of the dam.

Under the proposed amendments, where existing dams are assessed to pose an unacceptable risk, rectification or modification of dams can then be required by the issue of a notice or order. The relevant authority can require that the dam owner appoints or engages a person with specified qualification to prepare a plan or report and require the owner to undertake the actions recommended in that report. The SASES will be made aware of dams that are subject to a notice or order to repair or modify a dam.

There was general support for a duty to maintain dams as it was considered to reduce the need for emergency response call outs and risks to communities. Issues raised to be further considered included:

- Contingent liability for inspections/failures
- Data and record keeping procedures/systems
- Ongoing collection of fees for inspections and compliance
- Compliance management of non-conforming sites
- Additional financial, work load and water resource management burdens on landholders and farm businesses.

Most responses considered the Landscape SA Act as the logical place for such a duty, but the option of expanding powers under the FES Act or the PDI Act were also raised. It was noted that further consultation and thought about resourcing and tools would be required.

The recommended option is to include enabling provisions as a future amendment to the Landscape SA Act, and further investigate the issues raised during stakeholder consultation.

The advantages of having dam maintenance regulated under one piece of legislation and having consistent approval authorities outweighs the issue of potentially expanding the scope of permits under the Landscape SA Act. There is no doubt that dam safety management and dam maintenance fits within the objectives of the Landscape SA Act.

Consolidation of dam maintenance requirements under the Landscape SA Act also aligns with dam safety management interstate, where this is generally aligned to water resource management legislation. However, the option of provisions under the Fire and Emergency Services Act will be further investigated as a complementary instrument.

Proposed further actions:

6. Further investigate the issues raised in stakeholder consultation about introducing an enforceable duty to maintain a dam:
 - Contingent liability for inspections/failures;
 - Data and record keeping procedures/systems
 - Ongoing collection of fees for inspections and compliance
 - Compliance management of non-conforming sites
 - Additional financial, work load and water resource management burdens on landholders and farm businesses.
7. Develop enabling provisions for inclusion in future amendments to the Landscape SA Act that would provide the option to develop a regulation or specific policies to activate a duty to maintain a dam.
8. Investigate the option of provisions in the FES Act and explore obligations for flood preparedness and prevention (similar to bushfire preparedness and prevention) to address dam maintenance.

3.6 Provide guidelines for the level of competency of practitioners advising on siting, design, construction, modification and maintenance of dams

The level of competence and assurance required of practitioners providing advice on dam siting, design, construction, modification and maintenance is proposed to be set out in a guideline, with the option of defining requirements in regulation, if and when this is considered appropriate (for example for higher risk dams). Dams with a higher risk may require a certified report from a suitably qualified and experienced engineer for design, construction and maintenance status, while smaller, low risk dams may only require a self-assessment against a checklist or a report from the contractor on completion of the dam.

A checklist could be developed to assist landholders in the selection of a contractor or qualified engineer when required. It is not intended to assemble a list of preferred providers.

As part of the assessment of an application for a dam, evidence will be required that competence guidelines /requirements have been met. Care will need to be taken that the cost of meeting the requirements are in proportion to the benefit of the dam to the landholder and the potential impacts downstream and do not create unnecessary red tape. It may be entirely appropriate for landholders to construct small, low risk dams themselves.

Care will also need to be taken that any guidelines or regulations do not result in changes in liability for the relevant authority approving the siting, design, construction, modification and maintenance of a dam.

Stakeholder consultation supported that a scale of competencies should be developed depending on the size and nature of the dam. The suggested qualifications included requiring a number of years of experience in dam construction and/or engineering qualifications.

There were different views about whether the competency requirements should be in the form of guidelines or regulation, and which legislation (PDI Act or the Landscape SA Act) was most applicable.

It is proposed to develop guidelines for competencies in the first instance, but also include enabling provisions as part of future amendments to the Landscape SA Act to support regulations or policies regarding competencies for dam design, construction and maintenance as a further option. The Landscape SA Act is the most logical home for potential regulation of competencies because of the close linkage between design and siting of dams and the impacts on water resource management and water allocations.

Proposed further actions:

9. Develop competency guidelines linked to dam risk rating and seek further feedback on these guidelines from industry and landholders.
10. Develop enabling provisions for inclusion in future amendments to the Landscape SA Act that would provide the option to develop a regulation or specific policies to require competencies for the design, construction and maintenance of a dam.
11. Develop a checklist to assist landholders in the selection of a contractor or qualified engineer when required.

3.7 Provide guidelines relating to the siting, design, construction, modification and maintenance of dams that consider both water resource management impacts and flood risks

There can be generic design requirements for the siting, design, construction, modification and maintenance of dams. It is proposed that the rigour of requirements will depend on the dam failure risk rating of the proposed or existing dam and the site conditions. Assessment of potential dam failure risk rating may inform the siting and design of a proposed dam. Other requirements will flow from water resource management considerations. Certain requirements may warrant regulation, in other cases guidelines may be sufficient in combination with the competency requirements outlined in section 3.6.

Under the Landscape SA Act, assessment of dam permit applications will continue against criteria in the water affecting activities policies or the water allocation plan. As outlined earlier, requirements focus on water resource management but can and sometimes already include requirements relevant to dam safety management such as spillway design or freeboard. Care will need to be taken that any guidelines or regulations do not result in changes in liability for the relevant authority.

There was support for guidelines from stakeholder consultation but similar to the response on guidelines or regulation for competencies, there were different views about the level of prescription and the legislation (Landscape SA Act or PDI) to be used if regulation would be required.

Development of guidelines for the siting, design, construction, modification and maintenance of dams will be explored alongside the development of competency guidelines. If regulation is required, the preferred approach is that this will occur under the Landscape SA Act.

Proposed further action:

12. Develop guidelines for siting, design, construction, modification and maintenance of dams, alongside the competency guidelines and seek further feedback on these guidelines from industry and landholders.

3.8 Consolidation of all aspects of regulation of in scope dams under the Landscape SA Act

Consolidation of all aspects of regulation of in scope dams under the Landscape SA Act is considered the preferred option. It would require removal of these dams from the planning system and development of dam construction guidelines or requirements under the Landscape SA Act. This change would reduce complexity for landholders as all applications for dams would go to one place for assessment and authorisation.

The alternative would be that dam **construction** requirements sit in the planning system. Requirements under the Planning and Design Code would include considerations for siting, design, construction, and modification of dams. The Landscape SA Act would continue to focus on dams in terms of **watercourse and water resource management** through referral and would regulate **dam maintenance**.

Stakeholder consultation revealed a broad acknowledgement that current arrangements are confusing and lead to a risk of gaps in the assessment of applications for dam construction or modification and conflicting advice to landholders. However there was no consensus on the best way forward, with some support for consolidation in the Landscape SA Act, as well as for consolidation under the PDI Act and for the option of retaining but clarifying current arrangements.

It is recommended to work towards management of all aspects of design, siting, construction, modification and maintenance of dams under the Landscape SA Act. This provides the greatest clarity and least red tape for landholders and optimises dam safety management both from a water resource management and a dam safety perspective. It aligns with approaches interstate.

It is acknowledged that it is unlikely that there will be significant construction of new dams and the focus will be on modification and maintenance of existing dams. The Landscape SA Act is the most logical place for managing these aspects of dams.

Proposed further action:

13. Remove dams from the definition of development under the PDI Act, once adequate arrangements are in place under the Landscape SA Act through water affecting activities policies, regulations and/or guidelines.

3.9 Summary of proposed actions

Table 2 outlines the proposed actions for improved dam safety management in South Australia, with lead agencies and supporting agencies to deliver the actions. Most actions will require extensive stakeholder engagement and participation. The timelines are indicative and may depend on resourcing and/or legislative reform as indicated in the table.

	Action	Lead	Support	Timeframe	Comments
1	An annual dam safety awareness campaign for dam owners	DEW	SASES	Annually	Can be delivered with existing resources
2	Improving awareness and capacity of SES volunteers about dam safety management through pre-season briefings and targeted education	SASES	DEW	Annual or as required	Can be delivered with existing resources
3	Further develop and trial a dam failure risk rating method in a pilot catchment and consult with dam owners, SASES, Landscape Boards and local government on outcomes	DEW	SASES Landscape Boards	June 2021	Requires additional resources
4	Undertake targeted education on Emergency Action Plans for owners of high risk dams in the pilot catchment.	DEW	SASES	June 2022	Depends on risk rating method (action 3) being completed
5	Develop a draft pilot register for a catchment or a number of catchments in the Mount Lofty Ranges with good data, seek feedback from potential users and then finalise a pilot register and use it to inform a business case for a state-wide register	DEW	Landscape Boards	Pilot: June 2021 Business case: December 2021	Pilot requires resources and input from water resource management sector to ensure alignment
6	Further investigate the issues raised in stakeholder consultation about introducing an enforceable duty to maintain a dam: <ul style="list-style-type: none"> Contingent liability for inspections and failures Data and record keeping procedures and systems Ongoing collection of fees for inspections and compliance Compliance management of non-conforming sites Additional financial, work load and water resource management burdens on landholders and farm businesses 	DEW	Landscape Boards	March 2021	Requires additional resources

	Action	Lead	Support	Timeframe	Comments
7	Develop enabling provisions for inclusion in future amendments to the Landscape SA Act that would provide the option to develop a regulation or specific policies to activate a duty to maintain a dam.	DEW		December 2020	Can be delivered within existing resources
8	Investigate the option of provisions in the FES Act and explore obligations for flood preparedness and prevention (similar to bushfire preparedness and prevention) to address dam maintenance.	SASES	DEW	Aligned with future legislative review process for the FES Act	Requires regulatory change
9	Develop competency guidelines linked to dam risk rating and seek further feedback on these guidelines from industry and landholders	DEW	Landscape Boards	June 2021	Requires additional resources
10	Develop enabling provisions for inclusion in future amendments to the Landscape SA Act that would provide the option to develop a regulation or specific policies to require competencies for the design, construction and maintenance of a dam.	DEW		June 2021	Requires regulatory change
11	Develop a checklist to assist landholders in the selection of a contractor or qualified engineer when required.	DEW	Landscape Boards	June 2021	Requires additional resources
12	Develop guidelines for siting, design, construction, modification and maintenance of dams, alongside the competency guidelines and seek further feedback on these guidelines from industry and landholders.	DEW	Landscape Boards	June 2021	Requires additional resources
13	Remove dams from the definition of development under the PDI Act, once adequate arrangements are in place under the Landscape SA Act through water affecting activities policies, guidelines or regulation.	DPTI	DEW	Dependent on completion of other regulatory changes	Requires regulatory change

Table 2: Proposed actions for improved dam safety management in South Australia