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# Reservoir Safety - reforming the safety regime and modernising legislation for England

## Statement made on 20 July 2022

Statement UIN HCWS246

### Statement made by



**George Eustice**

Secretary of State for Environment, Food and Rural Affairs

Conservative

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Camborne and Redruth

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 Commons

### Statement

Reservoirs play a vital role in safeguarding our water supply, by storing water that falls in the wetter part of the year, to ensure continuity of supply when it is dry. But storing large volumes of water is not without risk – in August 2019 parts of the spillway at Toddbrook Reservoir collapsed following significant heavy rainfall and around 1,500 local people were temporarily evacuated while the reservoir was made safe. More than 17,000 were potentially at risk of flooding from the reservoir dam being breached. Fortunately, incidents such as this are very rare. We have a strong record of reservoir safety and compliance with our safety regulations is good.

We cannot however be complacent. The number of reservoirs in England is growing by an average of 15-20 per year, adding resource pressures for already stretched panels of engineers. Reservoir assets are ageing, which increases risks where investment is limited. In addition, the more extreme periods of drier and wetter weather expected as a result of climate change, will place increasing stresses on reservoir infrastructure.

Following Toddbrook, Professor David Balmforth's independent review considered whether the regulation of reservoirs, which protects more than 2.2 million households and properties in England, remains effective and robust in securing the ongoing safety of this critical infrastructure. The review identified common examples of poor practice in the work of reservoir safety engineers and concluded that the Reservoirs Act 1975 does not effectively support modern, risk-based safety practices. It recommended:

- a new risk/hazard based safety regime, where safety requirements are proportionate to risks;
- improving safety management practice by reservoir owners;
- improving inspection and supervision by reservoir engineers; and
- strengthening the regulator's role.

I am therefore confirming today that the Government has accepted Professor Balmforth's recommendations and will carry out reform of the reservoir safety regime and modernisation of the Reservoirs Act 1975. Defra and the regulator – the Environment Agency - will commence a programme of work now, with a view to consultation in 2023/24. Once the consultation has concluded, the Government will then work to develop legislative proposals. The Government would then legislate when Parliamentary time allows.

The Government considers that the review has made a strong case for improving safety practice, strengthening roles and

responsibilities for owners, engineers, and the regulator, and for modernising the legal framework.

The following principles will be applied to shape and guide the reforms. We will aim to:

- Reduce risk to life as low as reasonably practical
- Take early action to address risks where possible
- Fairly apportion costs for risk management with reservoir owners
- Take a proportionate, risk-based and customer-friendly approach

The Government has been considering whether small raised reservoirs, which are between 10,000m<sup>3</sup> and 25,000m<sup>3</sup> in volume and are currently unregulated, should be brought under the scope of the Reservoirs Act 1975. We are minded that, subject to a consultation, such reservoirs should be regulated in future and will develop proposals as part of the reform of the safety regime. Research suggests that there are around 500 small raised reservoirs which pose risks for local communities if the structures were to fail. At least 5 incidents a year occur where emergency measures are needed to prevent dams and embankments from breaching or failing which indicates a strong need to regulate such reservoirs to ensure public safety. During 2022/23 the Environment Agency plans to introduce a free registration scheme for owners of small raised reservoirs, which will collect data about these reservoirs and help inform a proportionate approach to regulation.

The reform programme will be taken forward collaboratively, with owners and engineers being involved in shaping the details. It will include:

- reforms that can be done through existing powers, secondary legislation, guidance, training and Codes of Practice during 2022/23 and 2023/24, including:
  - o improving enforcement options and flexibility using civil sanctions;
  - o introducing review of engineers' reports by the Environment Agency;
  - o developing proposals for a proportionate charging scheme to improve recovery of regulatory costs; and
  - o introducing a free registration scheme for owners of small raised reservoirs during 2022/23.
    - preparing for modernising the Reservoirs Act 1975 with a view to consulting on proposals during 2023/24, including:
      - o developing a new risk/hazard classification and how it could operate;
      - o developing proposals to make the future supply of reservoir engineers more sustainable;
      - o developing proposals for regulating small raised reservoirs within the new safety regime, for consultation.

This will build on actions that have already been taken to strengthen reservoir safety, for example:

- a Ministerial Direction in April 2021 requiring reservoir owners to prepare on site emergency flood plans for all their large raised reservoirs. Owners were given a year to do this and the Environment Agency report that 94% of registered reservoirs now have plans certified by reservoir engineers;
- guidance issued to reservoir owners about having inspection information packs for their reservoirs;
- guidance developed in collaboration with engineers and issued by the Environment Agency to improve spillway inspection and management; and
- the Institution of Civil Engineers, at my request, is carrying out research to improve the future supply of engineers.

The reform programme will be spread over several years so that changes can be managed alongside ongoing reservoir safety management in a proportionate and reasonable way. The Welsh Government and the other UK administrations will be kept informed and involved with the development of the safety regime because the Reservoirs Act covers England and Wales, and reservoir engineers work across the UK. The Reservoirs Act 1975 as amended by the Flood and Water Management Act 2010 will remain in force until legislative changes are made.

The Government's planned actions in response to individual recommendations in the review are summarised in Table 1 below.

Our reforms will bring the reservoir safety regime for England into line with other high risk sectors such as the nuclear industry and rail. It will lead to a modernised safety regime that protects the lives and livelihoods of those living downstream of reservoirs, while preserving the important role of these crucial assets in safeguarding our water supply in a changing climate.

#### **Table 1 Summary of Reservoir Safety Review Recommendations and Actions**

Consultation on proposed reforms is anticipated in 2023/24.

#	Short Description of Recommendation	Proposed Actions for 2022/23 and 2023/24
1	<p>Divide 'high risk' reservoirs into three hazard classes</p> <p>a) More frequent inspection to be required for high hazard</p> <p>b) Thresholds between classes to be determined by EA in consultation</p> <p>c) Government should review threshold for high risk designation</p>	<p>Accept in principle and prepare for consultation by researching and developing an improved hazard classification.</p> <p>Defra lead</p>
2	<p>Strengthen EA regulation</p> <p>a) EA to raise awareness of duties &amp; responsibilities</p> <p>b) EA to support owners in developing their capacity</p> <p>c) EA to charge for regulation (&amp; incentivise good behaviours)</p> <p>d) EA to adjudicate disputes between engineers and owners</p>	<p>Accept and begin to develop business case and options for introducing a proportionate charging scheme.</p> <p>EA lead</p>
3	<p>Introduce Reservoir Safety Management Plans (RSMPs) reflecting class</p> <p>a) Owners should prepare RSMPs reflecting hazard class</p> <p>b) RSMPs should be kept as prescribed form of record</p> <p>c) Supervising engineer to review and certify annually</p> <p>d) Owners to ensure competent staff (certified for higher hazard class)</p> <p>e) EA to produce guidance</p>	<p>Accept in principle and prepare for consultation, by developing proposals for prescribed, risk-based RSMPs.</p> <p>Defra and EA joint lead</p>
4	<p>Strengthen Supervising Engineer (SE) role</p> <p>a) SEs to engage in surveillance, review records, check RSMP delivery</p> <p>b) SEs to certify compliance with RSMP and approve RSMP for next year</p>	<p>Accept principle of improved SE practice and develop guidance and training.</p> <p>EA lead</p>
5	<p>Strengthen Inspecting Engineer (IE) role</p> <p>a) IEs to identify potential failure modes as part of inspections</p> <p>b) IEs to require precautionary interim measures quickly if concerned</p> <p>c) IEs to produce risk assessment for higher hazard classes</p> <p>d) Clear timescales to be attached to MIOS</p> <p>e) Precautionary measures to be ALARP[1] if they compromise operation</p>	<p>Accept and begin to develop improved good practice guidance for IEs.</p> <p>EA lead</p>
6	<p>Improve management of Measures in the Interest of Safety (MIOS)</p> <p>a) MIOS to be clearly indicated in IE reports</p> <p>b) Owner to appoint construction engineer for MIOS within 14 days</p> <p>c) Urgent MIOS to be completed asap and by specified completion date</p> <p>d) Certification issued on completion of MIOS to provide details</p> <p>e) RSMP amendments to be specified with required dates</p>	<p>Accept and begin to develop improved good practice guidance for MIOS.</p> <p>EA lead</p>
7	<p>Improve supply of future panel engineers</p>	<p>Accept and continue existing work to explore options for implementing with Institution of Civil Engineers (ICE).</p>

7	(Especially in light of small number of current engineers and aging profile)	Defra lead
8	Support career progression for panel engineers a) Revise designation of panels to introduce more responsibility tiers b) ICE to provide more support with training, mentoring, guidance	Accept in principle and plan how to take forward following advice from ICE.  Defra lead
9	Better knowledge sharing and learning for panel engineers a) EA to provide more access to learning for engineers b) EA to ensure lessons from incidents are more comprehensive c) EA to introduce reporting of near misses and anonymous reporting d) EA to update guidance for SEs, IEs and for risk assessments	Accept and begin developing guidance and other best practice sharing mechanisms.  Defra and EA joint lead
10	Introduce risk assessments and manage reservoirs so risk is reduced to 'ALARP' a) Owners to manage risks to ALARP based on a risk assessment b) Risk assessment to be based on good practice (& informs RSMP) c) MIOS should ensure risks are both tolerable and ALARP d) If risk cannot be reduced to tolerable levels, decommission	Accept in principle and prepare for consultation by developing proposals for risk assessments  Defra lead
11	Strengthen EA duties and powers a) EA and Defra to produce / commission a code of practice b) Expand EA duties to allow them to assure owners duties are fulfilled c) Expand EA duties to allow them to assure SE & IE reports & RSMPs d) Expand EA powers to challenge SE & IE reports, RSMPs (etc) e) Expand EA duties to spot check owners' activities	Accept in principle and begin EA quality assurance of panel engineer's work.  Defra and EA joint lead
12	Strengthen EA enforcement a) Full recovery of enforcement costs b) Expand EA powers to include fines c) Strengthen independence of EA regulator from role as operator	Accept in principle and plan for consultation and implementation.  Develop business case and options for EA civil sanctions.  Defra and EA joint lead
13	Climate change research: a) current and b) future programme of research	Accept and include in R&D programme  EA lead
14	Publication of data and transparency reports by a) EA and b) Owners	Accept principle of data publication – EA to develop proposals  EA lead
15	Review and update legislation and regulations (includes concern that current legislation is out-dated and inflexible for modern H&S practices)	Accept, engage with stakeholders, and develop programme of reform  Defra lead

## Statement from

**Department for Environment, Food and Rural Affairs**



## Linked statements

This statement has also been made in the House of Lords

### Department for Environment, Food and Rural Affairs ➤

Reservoir Safety - reforming the safety regime and modernising legislation for England



[Lord Goldsmith of Richmond Park](#)

Minister of State (Minister for Pacific and the Environment)

Conservative, Life peer

Statement made 20 July 2022

HLWS249

 Lords