Basic Details

Publish Date

06 November 2025

Case ID#

3347

Title

Assessment of unexplained reservoir water loss: Incident response and ongoing integrity investigation (not high-risk reservoir)

Nation

Wales

Regulator Reference No.

75

Legal Status

Statutory

Reservoir Type

Impounding

Reservoir Capacity

10 - 24,999m3

Year of Construction

1950 - 1969

Main Construction Type

Earth fill embankment

Dam Height

15 - 29.99 metres

Dam Flood Category

D

Hazard Class

Not-high-risk reservoir

Reservoir Use

- Industrial process

Owner Type

Limited company

Incident Details

Date & Time of Incident

27 September 2024 - 12:00

Date Incident Closed

04 November 2025

Observations that Caused the Incident to be Declared

- Leakage or seepage from a new leakage point

Describe the Incident

It was observed that the reservoir was not maintaining its normal operating water level. No specific trigger was identified. Historical incidents in 2019 and 2022 showed similar symptoms (unexplained water loss). Following a more recent investigation, a possible defect in the upstream embankment was observed following a spring tide. The defect became submerged following heavy rain. A boom has been installed upstream of the defect until temporary and/or permanent repairs can be carried out.

Supporting Photos

No images provided.

Causes and Impacts

Natural Processes which Initiated or Contributed to the Incident

- Unknown

Main Contributing Factors to the Incident Occurring

Dam Factors

- Other dam factors (describe below)
- Unknown

External Factors

- None

Shortcomings

- Unknown

Root Cause of the Incident

Unknown - investigations ongoing

Impacts on the Reservoir

- Other (describe below)

Supporting Photos

No images provided.

Supporting Contributions and Studies

Human Factors which Influenced the Incident

No human factors identified. No issues with protocols, training, or record keeping were reported.

Instrumentation at the Reservoir

No instrumentation was installed or used. Monitoring relied on visual inspections and drone surveys.

Was Instrumentation Effective?

Not Applicable

Assistance by External Parties and Impacts on Downstream Population

Regulator notified. No evacuations or downstream impacts.

Summary of Studies or Investigations Undertaken

Drone survey (inconclusive). Dye testing of underdrainage catch boxes. Visual inspection during low water levels. Planned further investigation and repair in mid-2026.

Supporting Photos

No images provided.

Lessons Learnt

Lesson 1

To be confirmed after further investigation. Historical incidents suggest need for improved liner integrity and monitoring.

Lesson 2

Lesson 3

Lesson 4

Closing Comments

Further investigations are planned to confirm root cause, remedial measures and to set out lessons learnt.

Supporting Photos

No images provided.

Information provided has been sent from reservoir owners and engineers, and cleansed of personal information by the enforcement authority. We cannot guarantee the accuracy of the data, but if you find an error please contact the relevant enforcement authority.