# **Basic Details**

**Publish Date** 

Case ID#

3112

Title

02 September 2025

Deep seated slip in bank

Owner Type
Limited company

# **Nation** England Regulator Reference No. 301 **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 Hazard Class** High-risk reservoir Reservoir Use Other

## **Incident Details**

#### **Date & Time of Incident**

16 October 2006 - 12:00

#### **Date Incident Closed**

Not provided

#### Observations that Caused the Incident to be Declared

• Deformation or instability of crest (settlement, cracking, depressions)

#### **Describe the Incident**

Settlement monitoring of the dam crest highlighted that movement had accelerated at three points. A deep seated slip in the upstream shoulder is thought to have been caused by operational drawdown of the reservoir in the summer and high pore water pressure within the upstream shoulder of the embankment.

### **Supporting Photos**

No images provided.

## **Causes and Impacts**

## Natural Processes which Initiated or Contributed to the Incident

None

## **Main Contributing Factors to the Incident Occurring**

#### **Dam Factors**

Instability

#### **External Factors**

None

## **Shortcomings**

• No apparent shortcoming

#### **Root Cause of the Incident**

#### Impacts on the Reservoir

• Settlement / deformation (outside normal or expected parameters)

### **Supporting Photos**

No images provided.

# **Supporting Contributions and Studies**

**Human Factors which Influenced the Incident** 

Instrumentation at the Reservoir

Was Instrumentation Effective?

Yes

Assistance by External Parties and Impacts on Downstream Population

None

## **Summary of Studies or Investigations Undertaken**

Intensive monitoring (weekly level survey, piezometer and toe drain readings etc.), ground investigation (including trial pits on the crest and below the upstream toe beam and boreholes in the upstream shoulder) and preliminary stability analyses.

### **Supporting Photos**

No images provided.

## **Lessons Learnt**

#### Lesson 1

· Records and studies

Plotting the settlement data graphically was very useful. The time of the year that the survey is carried out could be important. In our case where the cause of the problem appears to be related to drawdown it is best to carry out the survey in the autumn after the reservoir is drawn down during the summer.

## Lesson 2

• Emergency response

The incident has highlighted the need to have adequate emergency drawdown capacity during times of heavy rainfall and inflow to the reservoir.

#### **Closing Comments**

## **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.