

Position Statement

Risk designation and first inspection of reservoirs under the Reservoirs Act 1975

Document Owner: FRM Business Board

What is this document about?

This Position Statement sets out how NRW will regulate the inspection of reservoirs under the Reservoirs Act 1975 during the period of risk designation 2020-2025. It allows undertakers to carry out reservoir inspections prior to a confirmed risk designation and have that inspection accepted as valid once designated. It also aims to maximise the efficiency of compliance with dual regulatory regimes and minimise disruption and risk to water supply by statutory water undertakers.

Who is this document for?

NRW Reservoir Resgulation Team, reservoir undertakers and engineers in Wales

Contact for queries and feedback

Senior Specialist Advisor, Reservoir Regulation

Contents

Risk designation and first inspection of reservoirs under the Reservoirs Act 1975.....	2
Annexe 1. Conditions which apply to the use of this Position Statement	4
Annexe 2. Suggested inspection report format	6
Annexe 3. Flow chart to determine whether this Position Statement can be applied	8
Annexe 4. Flow chart for use of the Position Statement	9

Version History

Document Version	Date Published	Summary of Changes
1.0	10 Oct 2020	

Review Date: January 2025

To report issues or problems with this guidance [contact Guidance Development](#)

Risk designation and first inspection of reservoirs under the Reservoirs Act 1975

This Position Statement sets out how NRW will regulate the inspection of reservoirs under the Reservoirs Act 1975 during the period of risk designation 2020-2025. It allows undertakers of reservoirs to carry out reservoir inspections prior to a confirmed risk designation – before an inspection is legally required – and have that inspection carried forward and accepted as valid when the reservoir is designated. It also clarifies the use of section 8 to secure a Final Certificate for a large raised reservoir and the timing of inspection under section 10.

Service reservoirs which supply treated drinking water are subject to the Reservoirs Act 1975 if they are designed or capable of storing 10,000m³ of water above the natural level of the land surrounding the reservoir. Service reservoirs are also subject to statutory regulation by the Drinking Water Inspectorate to maintain hygiene standards.

Emptying of a service reservoir is also needed to enable cleaning and disinfection to take place to meet bacterial standards for drinking water. If not managed appropriately, these actions may interrupt water supply. A service reservoir needs to be emptied to enable a full and proper safety inspection. There may be multiple cells within a reservoir which can be drawn down independently of each other at different times, but the inspecting engineer must be satisfied about all cells to complete an inspection.

Service reservoirs are often inter-dependent with each other to allow continual network supply. The timing of draw down must be achieved in a way which maintains continuity of supply. Removing a service reservoir from operation for inspection and cleaning activities reduces the resilience and continuity of drinking water supply.

Using this Position Statement will help the efficiency of compliance with the Reservoirs Act 1975, as amended and will help with dual regulatory regimes by concentrating drawdown, cleaning and intervention by qualified civil engineers into a single intervention, whilst also securing safety certifications and minimising disruption.

Construction certification

All large raised reservoirs must be supplied with a Final Certificate, along with a Certificate of Efficient Execution of Works. For reservoirs already constructed but only registered since 2016, these certificates are provided by a Construction Engineer under section 8 of the Reservoirs Act 1975. For new reservoirs constructed since 2016, or those which are to be altered, section 6 applies.

Designation

NRW must designate a reservoir as a 'high-risk reservoir' if we think human life could be endangered in the event of an uncontrolled release of water. High-risk reservoirs are subject to all requirements of the Reservoirs Act 1975. We will seek to provide provisional designations before 31 March 2021 which will be followed by a minimum period of three months to allow undertakers to provide any representations against the designation.

Periodic Inspection

Section 10 of the Reservoirs Act 1975 requires undertakers to arrange for an independent qualified civil engineer to inspect a reservoir within one year of designation as a high risk reservoir, and to provide a certificate and report of that inspection. The requirement to

carry out an inspection takes force 28 days after a notice of final designation has been provided to the undertaker to allow for the submission of any appeal against the designation.

Our position is to provide the opportunity for undertakers to combine the separately required activities of sections 8 and 10 to satisfy the intent of the Reservoirs Act 1975 for first inspection to be carried out within a single intervention by a qualified civil engineer.

Position Statement

NRW recognises that the timing of a first inspection to establish construction certification, risk designation, first periodic inspection of a high-risk reservoir and any additional requirement for service reservoir cleaning regimes do not occur at complementary times. If strictly enforced, the timings may result in additional draw down of service reservoirs and substantially duplicate inspection findings resulting in an additional regulatory burden with limited benefit.

Pre-emptive Inspection

The schedule of draw down and cleaning of service reservoirs is continual and there will be reservoirs which are to be emptied for cleaning prior to being given a risk designation by us. An undertaker may choose to arrange an inspection of a reservoir because it is their opinion the reservoir is a high-risk reservoir - without NRW's confirmation as such - or as a matter of good operational practice. Scheduled emptying of a service reservoir for cleaning also provides an opportunity for the undertaker to appoint an Inspecting Engineer to inspect and report on the reservoir.

If the conditions of this Position Statement are met, an inspection carried out prior to confirmation of a final risk designation will be accepted by NRW as though a high-risk designation had been notified.

Timing

Where an undertaker notifies NRW of their intention to apply this Position Statement, and the accompanying schedule is accepted by us, and we have received no representation against our notice of provisional designation, then we will issue our notice of final designation for each reservoir listed in the schedule. The notice of final designation will confirm the date by which the inspection must be carried out.

Annexe 1. Conditions which apply to the use of this Position Statement

- 1) The undertaker must notify NRW's Reservoir Regulation Team of the intention to apply this Position Statement;
- 2) The notification in (1) must be received by NRW before a final designation has been notified under section 2B of the Reservoirs Act 1975;
- 3) The notification must provide a schedule of the reservoirs to which this Position Statement is requested to apply;
- 4) The schedule must contain the following information:
 - a) Name of undertakers
 - b) Reservoir name
 - c) Reservoir location
 - d) National grid reference
 - e) Proposed inspection date, or the approximate month.
 - f) Contact name for correspondence
 - g) The name and address of the qualified civil engineer appointed to carry out the inspection.
- 5) The schedule must be accepted in writing by NRW;
- 6) Any changes to the schedule must be notified to NRW within 28 days of the change being made and prior to a Notice of Final designation;
- 7) The engineer appointed to inspect and report on the reservoir must be a qualified civil engineer within the meaning given to that term by the Reservoirs Act 1975 for the duration of their appointment;
- 8) The inspection report and any certificates must be copied to us within 28 days of their issue to the undertaker;
- 9) The report is to be made under section 8 of the Reservoirs Act 1975 (a suggested format is included in Annexe 2); to include the engineer's recommendation as to the time of the next inspection under section 10.

In the event that:

- NRW designates a large raised reservoir as a high-risk reservoir, and
- that reservoir was notified to us on an agreed schedule, and
- the inspection provides the statutory documents required by the Reservoirs Act 1975, then:

NRW will accept the inspection report and certificates as though the the reservoir had been designated high-risk at the time of the inspection. Specifically, we will:

- Record the inspection on the public register, and
- Enforce any recommendations using the timescales recommended in the report, and
- Record the engineer's recommendation as to the time of the next inspection under section 10.

Occasions when this Regulatory Position will not apply

- Reservoirs which were large raised reservoirs prior to 1 April 2016 because they have a capacity of 25,000m³ or more are excluded and must continue to be inspected in accordance with the date recommended by the last Inspecting Engineer or at the times identified by Regulation 9 (see notes).
- Reservoirs which are already constructed but not registered as large raised reservoirs after the date of this Position Statement are excluded.
- Reservoirs which are in the course of construction or alteration under section 6.

Expiry

The Position Statement will cease to have effect from 1 April 2025.

Notes

The Reservoirs Act 1975, section 10 sets out the requirement for periodical inspection of large raised reservoirs. Subsections (1) and (2) provide that:

- 1) *The undertakers shall have any high-risk reservoir inspected from time to time by an independent qualified civil engineer (“the inspecting engineer”) and obtain from him a report of the result of his inspection.*
- 2) *Unless it is at the time under the supervision of a construction engineer (or of an engineer acting under section 8 or 9 above) a high-risk reservoir must be inspected under this section at the times specified by regulations made by the Minister.*

The regulations referred to in subsection (2) are provided as The Reservoirs Act 1975 (Exemptions, Appeals and Inspections) (Wales) Regulations 2016 and includes:

Regulation 9—

- 1) *For the purposes of section 10(2) of the 1975 Act, a high-risk reservoir is to be inspected at each of the following times—*
 - a) *before the end of the period of six months beginning on the date of completion of any alteration to the reservoir which—*
 - i) *does not increase or decrease its capacity;*
 - ii) *is such as might affect its safety; and*
 - iii) *has not been designed and supervised by a qualified civil engineer;*
 - b) *at any time recommended by the supervising engineer under section 12(3) of the 1975 Act;*
 - c) *at any time recommended in the report of the inspecting engineer made under section 10(3) of the 1975 Act;*
 - d) *within one year of designation under section 2B of the 1975 Act;*
 - e) *no later than 10 years after the date of the most recent inspection made under section 10 of the 1975 Act and once every 10 years thereafter.*
- 2) *Paragraph (1)(d) does not apply to any reservoir previously registered as a large raised reservoir under the Reservoirs Act 1975 (Registers, Reports and Records) Regulations 1985(1).*
- 3) *The requirement to have a high-risk reservoir inspected under section 10(2) of the 1975 Act is not fulfilled where the inspection is limited to part of the reservoir.*
- 4) *Paragraph (3) does not apply in any case where an inspecting engineer acting under section 12(3) of the 1975 Act or a supervising engineer acting under section 10(3) of that Act recommends that an inspection is limited to part of the reservoir.*

Annexe 2. Suggested inspection report format

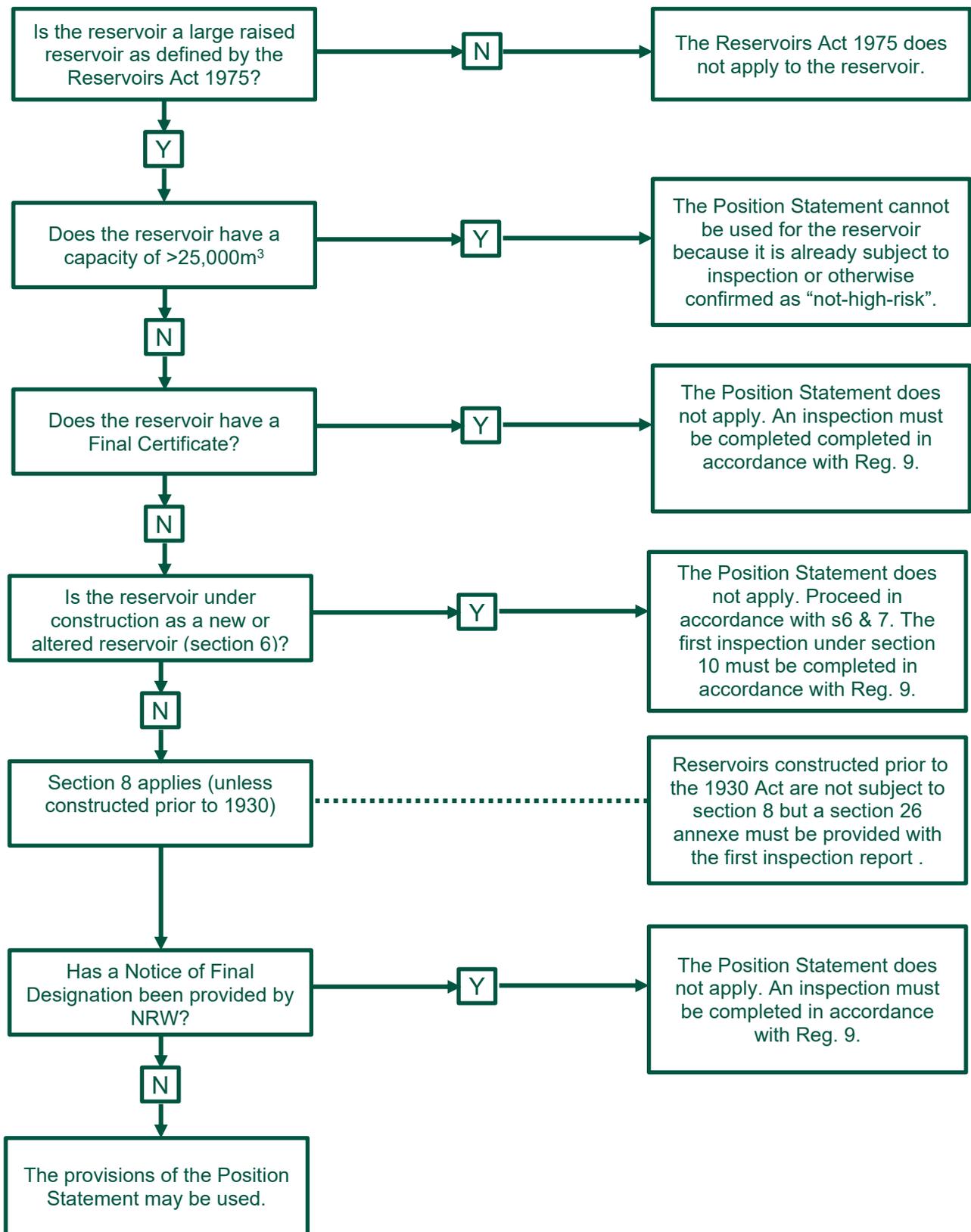
The engineer is at liberty to structure the report as he or she sees fit; however items in **bold print** are mandatory requirements under the Reservoirs Act 1975 (Capacity, Registration, Prescribed Forms, etc.) (Wales) Regulations 2016 ([2016 No. 80 \(W. 37\)](#)), SCHEDULE 5.

1. Reservoir Name and Situation
2. National Grid Reference
3. Name and address of engineer
4. Name of panel of which engineer is member
5. Name and address of undertakers who appointed engineer or confirmation that NRW appointed engineer, as appropriate
6. Name and address of Supervising Engineer
7. Date or date of engineer's inspection
8. Engineer's Findings regarding the construction of the reservoir The engineer is at liberty to structure this section as he or she sees fit; however items in bold print are mandatory.
8.1. Information Available – Include details of all relevant reports, studies, surveys and investigations and any other key information used in the preparation of the report.
8.2. Describe the conditions found, as appropriate, to reflect the engineer's assessment of the documentation provided, supplemented by observations made during the inspection.
8.3. General
8.4. Catchment area
8.5. Geology
8.6. Embankments, Dams, Walls
8.7. Spillways
8.8. Outlets
8.9. Reservoir rim stability
8.10. A statement of any alterations the engineer has observed which affect the level to which water may be stored or to the level of the overflow sills since construction;
8.11. Details of any recommendations regarding alterations or additions to works or the installation of instruments or gauges for measuring leakage, deflections, settlement, uplift, pore pressures or similar matters;
8.12. Details of any movement of the surrounding land observed which might affect the stability of the reservoir;
8.13. Adequacy of access provisions
8.14. Downstream conditions
8.15. Water level. Explanation of any requirement to limit the level in the reservoir and how this should be achieved and monitored.
8.16. Area downstream of the reservoir
8.17. Findings as to the adequacy and condition of the waste weir or overflow and any channels connected with it;
8.18. A statement as to the adequacy of the margin between dam(s), reservoir walls or embankments level and overflow level;
8.19. Findings as to the efficiency of the scour pipe or discharge culvert or other means of lowering the level of the water in, and any means of controlling the inflow of water to, the reservoir.

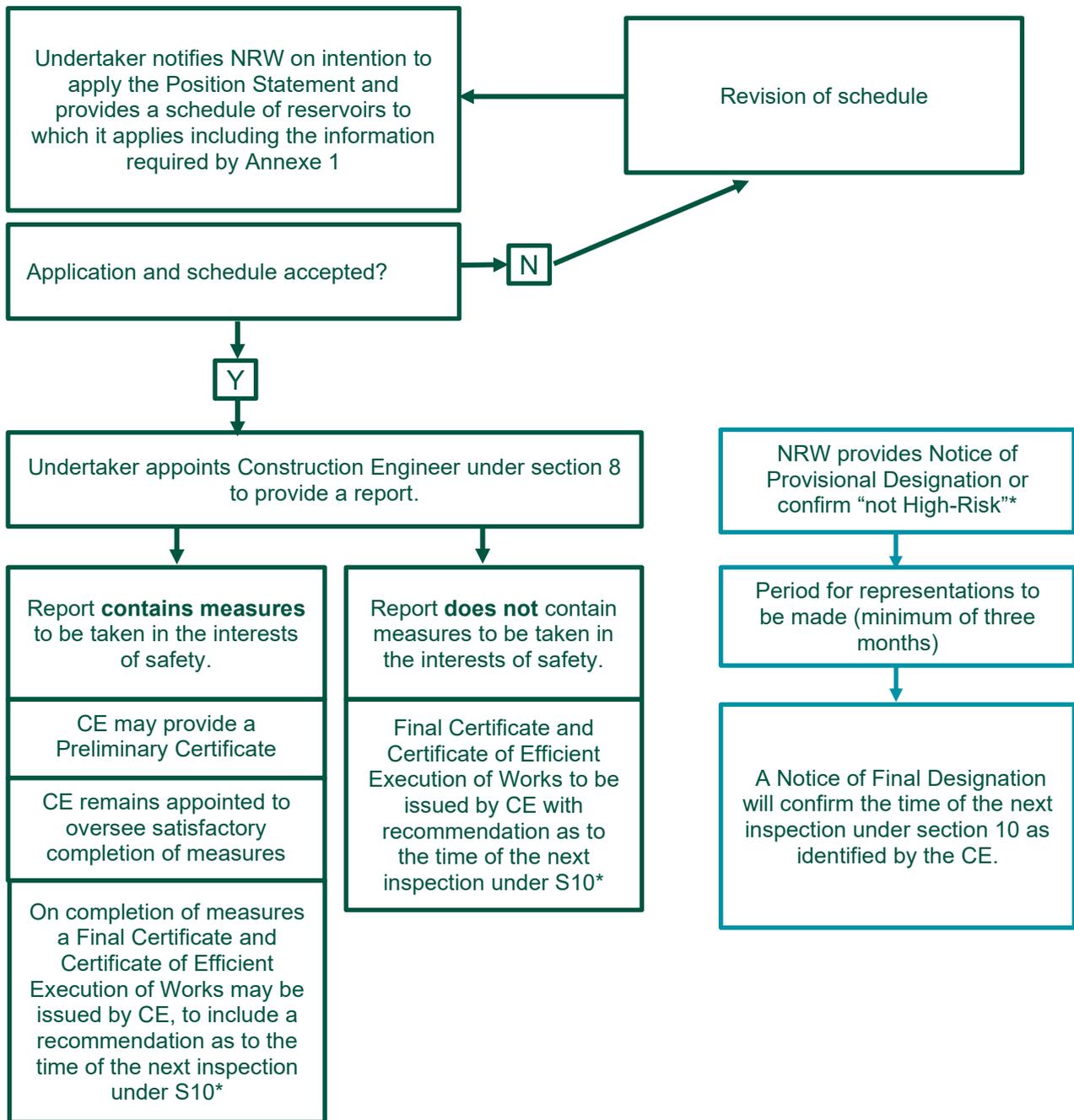
8.20. Adequacy under seismic loading
8.21. Confirmation that the undertaker has recorded the information required under section 11 of the 1975 Act; 8.21.1. Water-level monitoring 8.21.2. Reservoir surveillance
8.22. Particulars of any directions given by the engineer specifying the dates and times at which, or the manner in which information is to be recorded under section 11 of the 1975 Act;
8.23. Emergency Planning
8.24. Any recommendations the engineer sees fit to make as to measures to be taken in the interests of safety and the period within which the measures are to be carried into effect Note. All measures to be taken in the interests of safety must be confirmed complete before the issue of a Final Certificate.
8.25. Any recommendations the engineer sees fit to make as to the maintenance of the reservoir
8.26. A note of any matters the engineer considers the Supervising Engineer needs to watch during the period before the next inspection of the reservoirs under section 10
8.27. Other matters of maintenance and safety of personnel/ public
8.28. Other measures recommended to be taken but not requiring supervision by a QCE
8.29. Directions in respect of records under section 11
8.30. Recommendation as to the date of the next inspection under section 10
9. Signature of engineer
10. Date of report

Appendix A Design and Construction Information
<p>Appendix B Certificates</p> <ul style="list-style-type: none"> • Preliminary and Interim Certificates where considered appropriate; • Certificate of Efficient Execution of Works, with an annexe of drawings, etc; • Final Certificate. <p>A Preliminary Certificate is not mandatory under section 8. If there are no recommendations in the interests of safety, the engineer may elect to also append a Certificate of Efficient Execution or Works and a Final Certificate to the report.</p>
Appendix C Photographs
If section 8 does not apply because the reservoir was constructed before the 1930 Act came into force an Annex to report may be provided as required by section 26.

Annexe 3. Flow chart to determine whether this Position Statement can be applied



Annexe 4. Flow chart for use of the Position Statement



*In any case where NRW confirm in writing that the reservoir is not designated as a high-risk reservoir, no inspection under section 10 is required.

Published by:

Natural Resources Wales

Cambria House

29 Newport Road

Cardiff

CF24 0TP

0300 065 3000 (Mon-Fri 8am-6pm)

enquiries@naturalresourceswales.gov.uk

www.naturalresourceswales.gov.uk

© Natural Resources Wales

All rights reserved. This document may only be reproduced with the written permission of Natural Resources Wales.