

# The British Dam Society

### **TECHNICAL SITE VISIT**

Thursday 17<sup>th</sup> October 2024

## Llyn Celyn Reservoir - Auxiliary Spillway Construction

Bala, North Wales



For more information or to register please email: Samuel.tudor@dwrcymru.com with subject heading 'Llyn Celyn'

#### **SYNOPSIS**

Llyn Celyn Reservoir is situated in Snowdonia National Park near Bala. It was constructed in 1965 by damming the Afon Tryweryn, a tributary of the River Dee. The reservoir is well known for the controversy caused in Wales by flooding a Welsh village for the benefit of England as it was designed and built to supply water to the growing industry in Liverpool. Llyn Celyn is a 45m high, modern zoned earth embankment dam with a crest length of 650m, it is used for river regulation and releases form a major part of the regulation of the River Dee. It uses its 80,950,000m³ capacity to regulate the river for downstream abstraction of more than 800Ml/day by Dwr Cymru Welsh Water, Hafren Dyfrdwy (Dee Valley), United Utilities and the Canal and Rivers Trust.

Following a flood study and some physical modelling of the original drop shaft spillway arising from a Section 10 Inspection it became apparent that works were required to meet current storm conveyance guidance. A feasibility and optioneering study was carried out resulting the decision to construct a new tipping gate auxiliary spillway on the left hand side of the dam.

Work commenced in 2022 to upgrade some of the valves and pipework onsite and install some new enhanced drawdown valves on the original spillway and in October 2023 work started on the construction of the auxiliary spillway. This work is progressing well and in July 2025 work started on the critical phase 5 of the project where the section of the dam and core was removed, this work is ongoing and Dwr Cymru Welsh Water would like to invite you to the site to see how construction is progressing, the challenges faced and the great work being carried out in collaboration between Dwr Cymru Welsh Water and our Partner on the project Mott MacDonald Bentley (MMB)

During the visit we will give a presentation on the dams history, optioneering and construction work undertaken to date before a site visit to see the ongoing works.

### **GUIDANCE FOR ATTENDEES**

All attendees must first register by emailing <a href="mailto:Samuel.tudor@dwrcymru.com">Samuel.tudor@dwrcymru.com</a> with 'Llyn Celyn' as the subject.

Site visit will last approximately 3 hours from 11:00 until 14:00

PPE will be required to be worn (hard hat, safety boots, gloves, safety glasses and high visibility vests).

There is parking available at site, but please make every effort to carshare. The nearest address for site is:

The National White Water Centre Canolfan Tryweryn North Wales, Fron-goch, Bala LL23 7NU

Leave the A4212 at this location and follow the road to a large parking area at the location of the below pin. The What 3 words for this location are: Sedative.Bath.Managers

Please note- the reservoir is quite remote and public transport is very limited.

