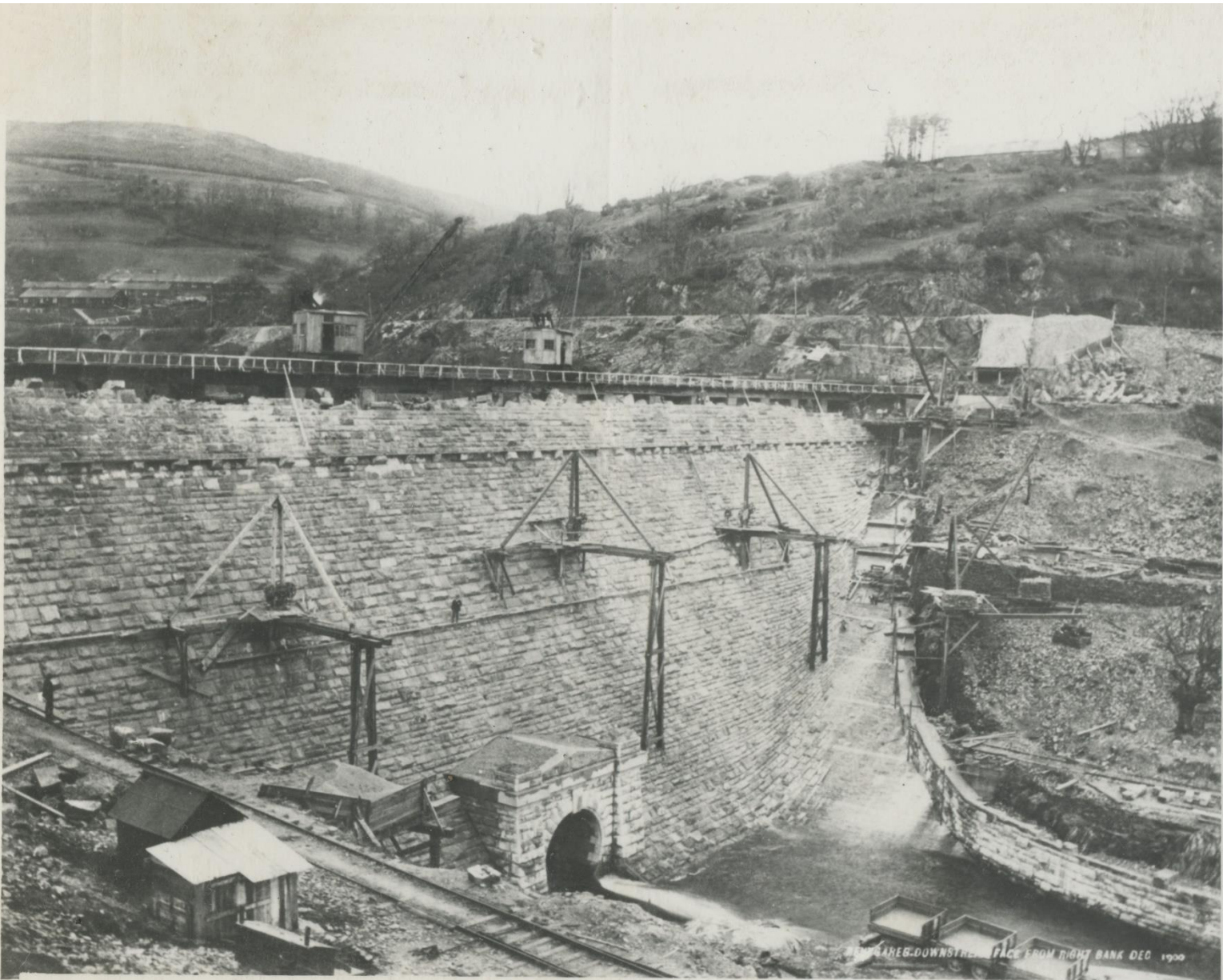


# *Elan Valley: A History*



## **Background**

*The Elan Valley, located in the rugged heart of mid-Wales near Rhayader, has a long and distinctive history shaped by its landscape, its people, and eventually its pivotal role in supplying water to one of Britain's largest cities. For centuries the valley was sparsely populated, home to small farming communities and drovers who travelled the upland routes with cattle and sheep. The area's remoteness, coupled with its dramatic hills, moorlands, and river systems, also made it a refuge; local tradition holds that Welsh princes once sought safety in the upper Elan region during times of conflict.*

*The modern history of the valley began to take shape in the late nineteenth century. By the 1890s, Birmingham was growing rapidly as an industrial centre and faced serious water shortages. City engineers identified the Elan and Claerwen river catchments as ideal sources of clean, soft upland water. In 1892, an Act of Parliament granted Birmingham Corporation permission to purchase the entire watershed—over 70 square miles, 1% of Wales—and construct a vast network of dams and aqueducts.*

*Work on the Elan Valley Reservoirs became one of the great engineering undertakings of the Victorian era. Thousands of workers lived in purpose-built villages as they quarried stone, laid railway lines, and built monumental dams such as Caban Coch, Garreg Ddu, Pen y Garreg and Craig Goch. The first phase was completed in 1904, allowing gravity-fed water to travel over 70 miles to Birmingham without the need for pumping. The project not only secured a reliable water supply for millions but also transformed the landscape, flooding former farms and altering the shape of the valleys forever.*

*A second phase in the mid-twentieth century culminated in the completion of the Claerwen Dam in 1952, inaugurated by Queen Elizabeth II in one of her first public duties as monarch. Today, the Elan Valley is celebrated not only for its engineering heritage but also for its rich biodiversity, protected landscapes, and continuing role in*

*supplying high-quality drinking water. It stands as a rare example of a major industrial project that has become deeply integrated with natural conservation and public recreation.*

## ***Sub-Roman and the Middle Ages***

### **Arthurian Legends, an Elenydd Ambush and Gerald of Wales**

#### **9000BC – 400AD**

Different civilisations settled in the area from Neolithic settlements to Bronze Age societies, including building cairns such as the one seen on Drygarn Fawr and the standing stone at Maen Serth.

Celtic tribes settled in the surrounding area but were occupied by the Romans until 400AD.



Image of the Bronze Age standing stone Maen Serth at sunset, near the Wye valley, Rhayader. Landscape views of the Elan Valley are visible in the background. Taken September 2015

## **AD 400 – 1000**

Myths and legends were passed down generations through poets and bards, creating the Welsh identity and culture. Legends include tales of King Arthur, and his kinsman Culhwch, who needed Arthur's help to break a curse and marry his lover. Part of these adventures were believed to have taken place around Carn Gafallt.

## **1177**

Rhys ap Gruffydd probably built Rhayader Castle the year following the death of Lord Einion Clud in 1177. Einion oversaw Elfael, a region in today's Radnorshire and was killed by Roger de Mortimer around the area of Maen Serth standing stone.

Rhys ap Gruffydd gave the Cwmteuddwr parish lands which included the Elan and Claerwen valleys to the Cistercian Abbey of Strata Florida in 1184.

## **1188 – 1194**

Between 1188 and 1194 Gerald of Wales accompanied the Archbishop of Canterbury on a tour of Wales, recruiting for the Third Crusade. After three years of this, Gerald produced the *Itinerarium Cambriae* (Gerald's account of journeying through Wales), describing the Elenydd area in the first written historical record of the Elan Valley.

## **1189 - 1414**

In 1189, Henry II died, leading Rhys ap Gruffydd free to attack Norman lords who were encroaching on his land. He defeated Roger Mortimer near Radnor, before dying unexpectedly in 1197.

After his death, most of Wales was ruled by Llywelyn Fawr from Gwynedd to the Elan Valley. In 1231, Rhayader Castle was destroyed by Llywelyn, and remains untouched since. He used Strata Florida as a base for his council, meeting with fellow rulers who he asked to acknowledge and swear fealty to his heir Dafydd.

The Edwardian Conquest brought Wales under the rule of Edward I, building a ring of castles in North Wales. The Elenydd was cleared of trees to prevent thieves from sheltering there. Strata Florida was used by Henry VI as a military base against Owain Glyndŵr and Lord Grey Ruthin but was returned to the Cistercian monks after the rebellion.

### **1536 – 1539**

In 1536, the Act of Union brought Wales under English Law, and in 1538 Strata Florida played host to John Leland, who was sent by Henry VIII to record his encounters with the Elenydd herdsmen.

In 1539 came the Reformations of the Church, which led to Strata Florida closing and the monastery's wealth and lands confiscated.

## ***Early Modern Period***

### **Gwaith-y-Mwynau Mine, the English Civil War and Bowles' 'Coombe- Ellen'**

#### **1609**

In 1609, Sir Hugh Middleton, who owned Gwaith y Mwynau mine near Maen Serth, began construction of a canal that would provide gravity fed water to London, 61km away. This was completed in 1613. During the English Civil War in 1642, the mine provided silver to finance the Royalist side.

## 1798 – 1812

The Elan Valley was visited by a number of poets, including William Lisle Bowles in 1798, who later wrote a 351-line piece called Coombe-Ellen, and Percy Bysshe Shelley just over a decade later. Shelley's uncle, Thomas Grove Jr, owned Cwm Elan Mines and was Master of the Elan Valley Estate in 1809. Shelley visited the Elan Valley in the summer of 1811, returning again the following year and attempting to buy a home in the valley.



Signed photograph of Percy Bysshe Shelley. Percy Bysshe Shelley visited Elan Valley with his bride Harriett Westbrook, who was 16 at the time. They stayed at Nantgwyllt house and with his uncle Sir Thomas Groves, who resided at Cwm Elan House.

## 1843 – 1844

The Rebecca Riots, so named as the rioters disguised themselves in women's clothing, was brought on by increased toll prices and economic depression. The tollhouses were burned down in an act of protest, including the Turnpike tollhouse, known as Blaenycwm tollgate, at the top of the Elan Valley, was attacked by rioters in 1843.

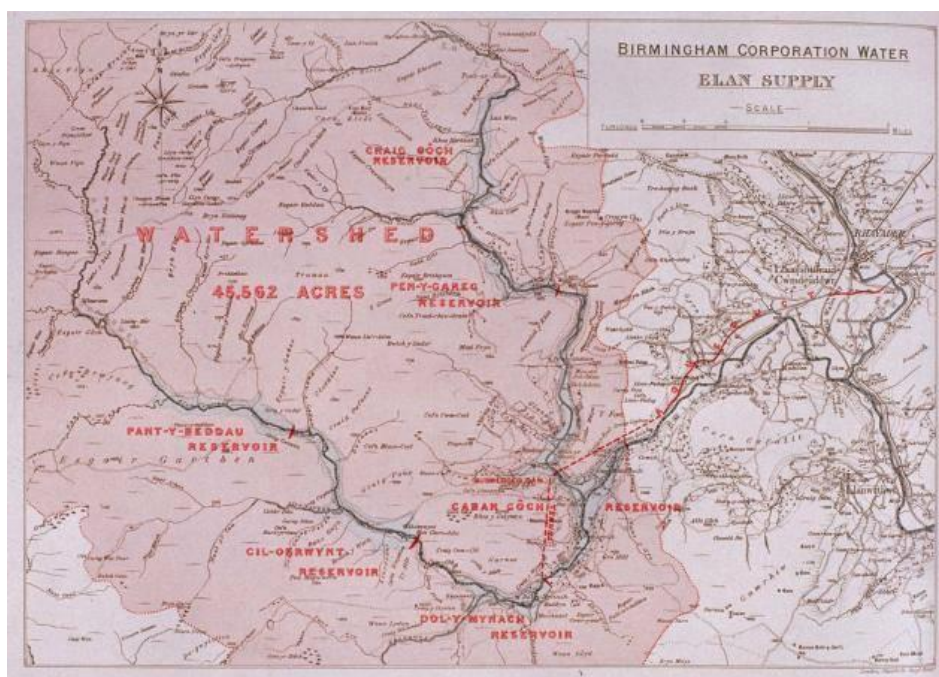
## 1853 – 1899

There are four different mines in the Elan Valley Estate, but none were very successful. Nant y Car mined copper and lead from 1853 – 1883. Copper and lead were also found in Dalrhiw from 1850 – 1867. Nant y Garw only mined lead from 1877 – 1899 and Cwm Elan Mine retrieved lead and zinc for nearly just over 80 years before closing in 1877. All mining activity stopped once the building of the dams commenced to avoid polluting the water.

## 1892

As the Industrial Revolution progressed, and people migrated into the cities for work, Birmingham's population was rapidly outstripping its natural water resources. The conditions were unsanitary, with outbreaks of cholera, typhoid and dysentery.

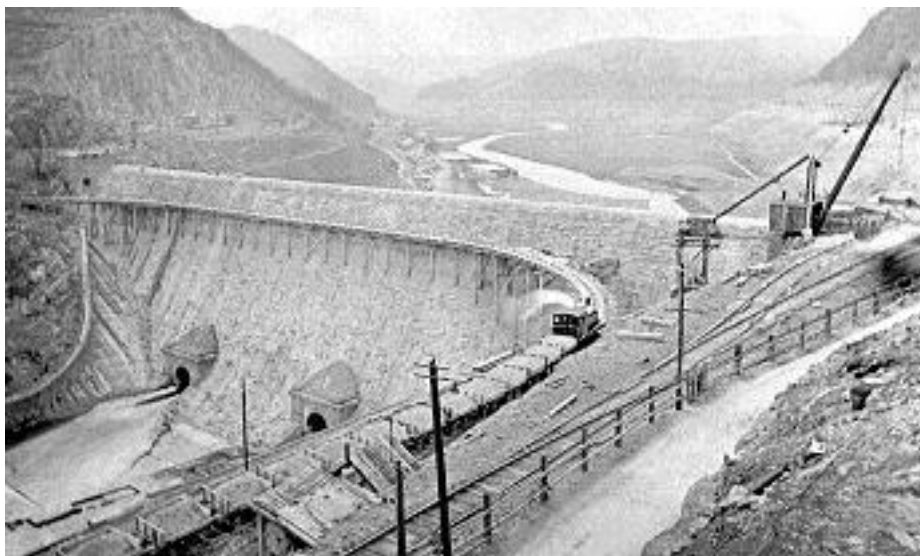
After James Mansergh, Birmingham Corporation Chief Engineer, had scouted the Elan and Claerwen Valleys as a place to store water, an Act of Parliament was passed with the Birmingham Corporation Act in 1892 that allowed Birmingham Corporation to buy the estate for the purpose of building dams to store water and direct it to Birmingham.



A map from Birmingham Corporation showing the proposed sites of the Elan Valley and Claerwen Valley dams in the Elan Estate, early 1890s.

## **1893 – 1903**

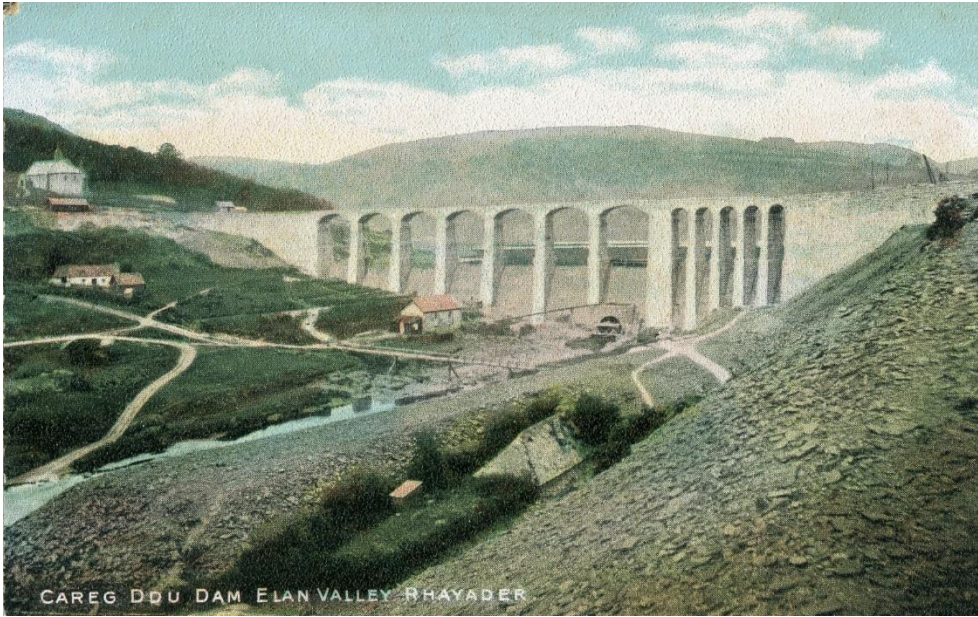
Work started on the project with the construction of the railway from Cwmdauddwr in 1893. As the railway reached the first site, work was started on Caban Coch dam. The railway took three years to build and covered thirty-three miles in total. A purpose-built village was built to house the workers and their families in 1895 half a mile from the site of Caban Coch. All buildings, including a number of farmhouses, a school, a church and a shop, were demolished and the materials were used elsewhere.



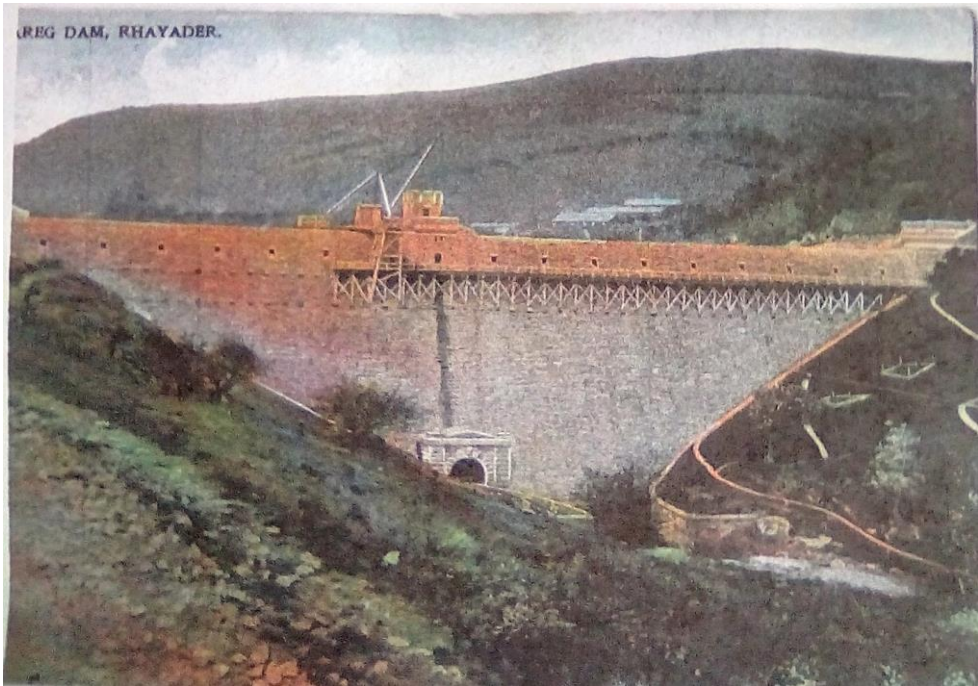
Black & white photograph of train on Caban Coch dam during its construction, Elan Valley late 1890's

## **1895**

Work continued on Caban Coch and began on Garreg Ddu and Pen y Garreg.



Garreg Ddu dam under construction, Elan Valley.



Garreg Ddu dam under construction, Elan Valley.



**1896**

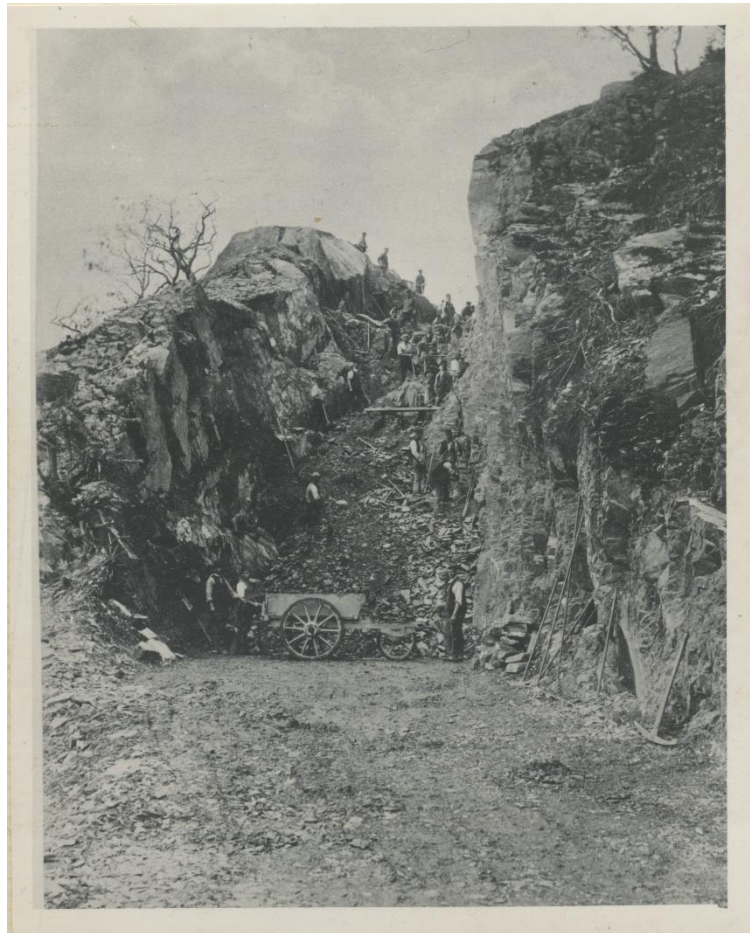
Work began on the aqueduct, which was carried out in sections by contractors.



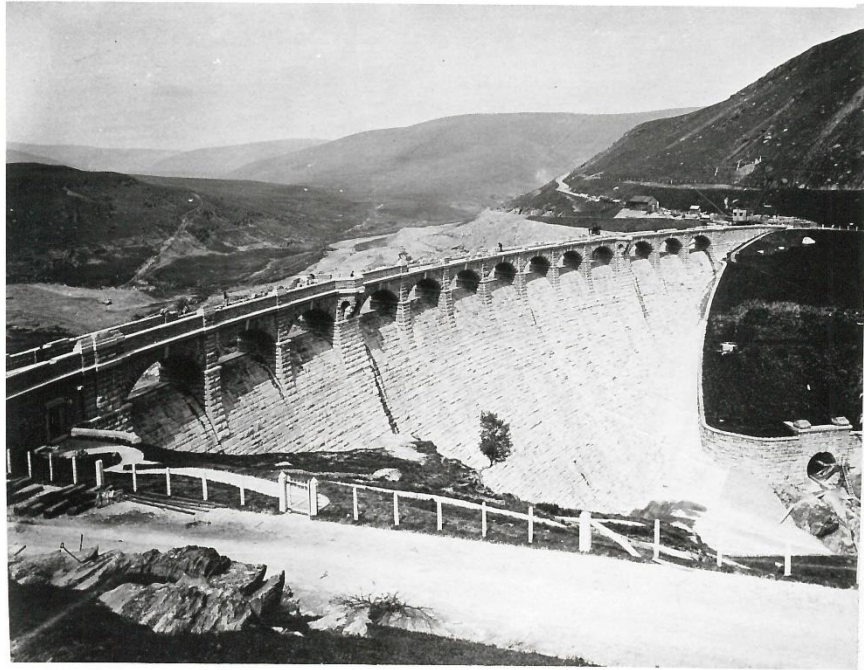
Elan Valley Aqueduct. Knighton Tunnel workings.

**1897**

Craig Goch, the top dam, was started. The work was delayed as there was a rocky outcrop that paused the progression of the railway. This was nicknamed the Devil's Gulch by the workers and took three months to remove it by dynamite and pickaxes.



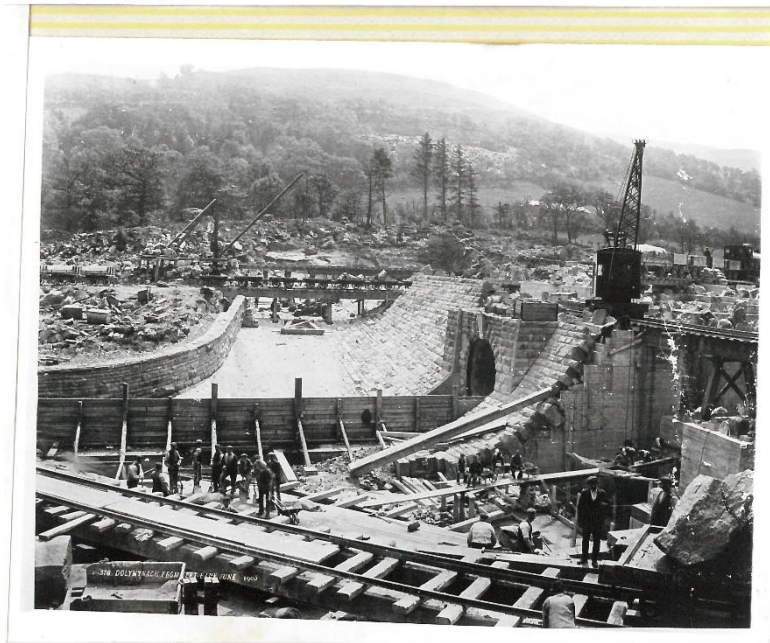
Devil's Gulch. Craig Goch under construction. Black and white photograph of a rocky outcrop blocking the construction of the railway, mid 1890s.



A view of the face of Craig Goch dam in the Elan Valley.

**1901**

Work began on Dol y Mynach.



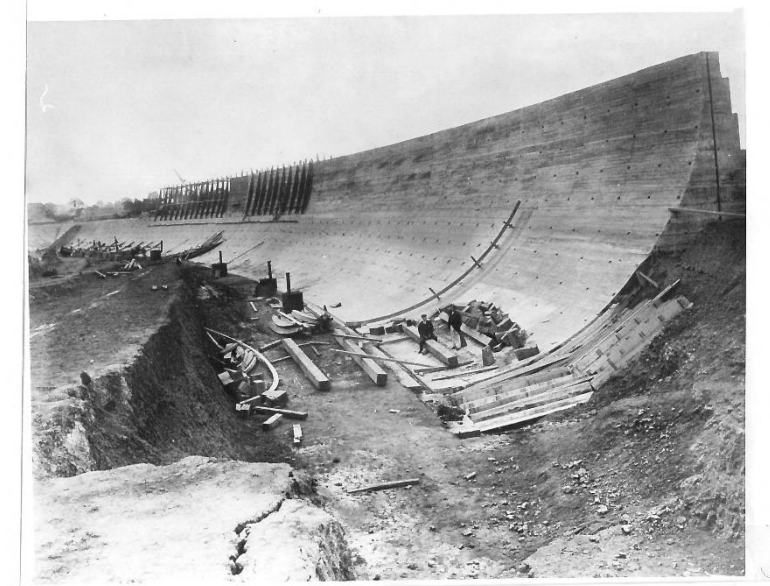
Dol y Mynach Dam, Elan Valley under construction 1890s

**1904**

Phase One of the Elan Valley dams project was finished and opened on the 21<sup>st</sup> of July 1904 by King Edward VII and Queen Alexandra. A week later, water flowed continuously from the Foel Tower to Frankley Reservoir in Birmingham.



Sepia photograph of King Edward VII and Queen Alexandra performing the opening ceremony in July 1904.



Frankley Reservoir Curved Wall looking East.

## 1914 – 1918

Phase Two, which involved completing Dol y Mynach and building two more dams in the Claerwen valley was delayed by the onset of the First World War. The Water Treatment Works were guarded by Special Constables from Birmingham.

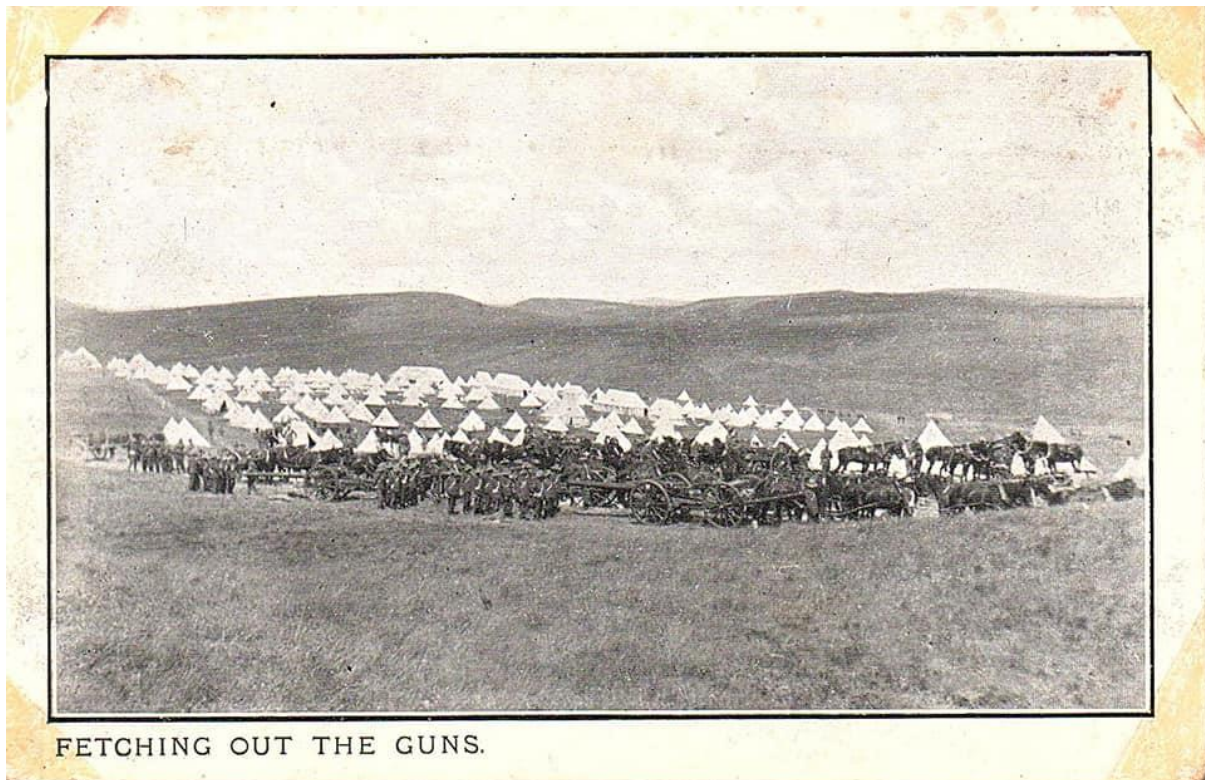
## 1939 – 1945

Full time Guards were placed at both entrances to the valley, and pillboxes were built to protect the water supply. Armoured cars patrolled the estate.

Nant y Gro, a small 11m high dam that was built to supply the village with water, was 1/5<sup>th</sup> of the size of the Möhner dam in the Ruhr Valley, once of the chosen targets. As the valley around Nant y Gro is small but steep, the bouncing bomb wasn't tested there, but the number of explosives needed was scaled down and tested. In May 1942, the first tests were done on Nant y Gro by Barnes Wallis in his mission to develop the bouncing bomb. Two months later, the trials were successful and Nant y Gro was blown up.



Photograph of the Elan Valley Home Guard. BACK ROW L>R David Lloyd, Ernie Smith, Jack Lewis, Rees Lewis. FRONT ROW L>R Phinaeus Powell, VL Jones, Fred Waite, Bert Morris. Bert Morris may have had connections with the bouncing bomb practice in the Elan Valley, Fred Waite was an area manager for Birmingham water and VL Jones was a local superintendent.



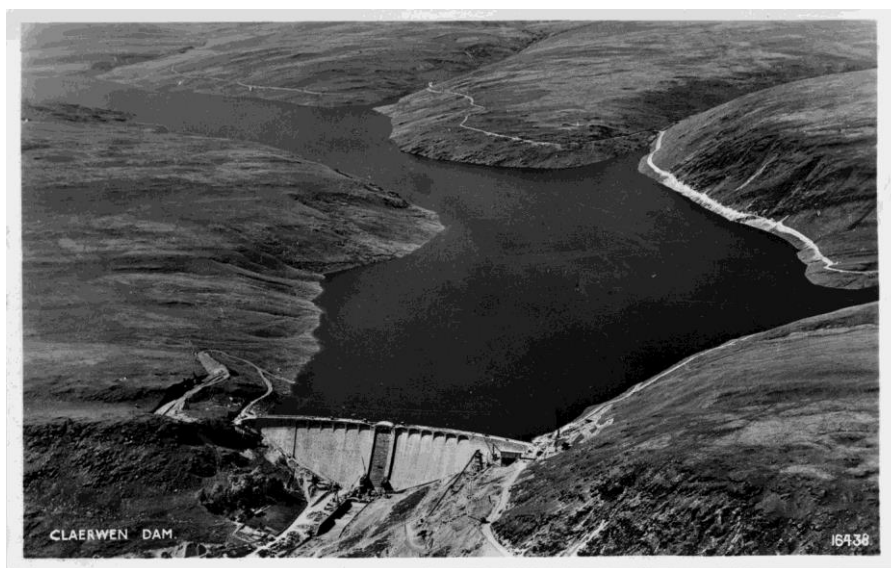
Photographs of the Royal Artillery camp on Penrhiwwen, Old Aber mountain road. They arrived around September 1903 in trains to Rhayader. The station horse would pull the guns to Penrhiwwen. The area was being tested out to replace the artillery range at Lydd. These guns are believed to be 6"guns; there were exhibitions which displayed the firing of 6"guns in 1908 & 1910. The artillery left the area as soon as the Great War was declared.

### **1946 - 1952**

Increased demand for water led to a new dam being built in the Claerwen Valley. It took 460 men six years to build the Claerwen dam, which is much larger than the Elan Valley dams. It is solid concrete but dressed in stone to match the other dams. It was opened by Queen Elizabeth II on her first official engagement in Wales on the 23<sup>rd</sup> of October 1952.



Black and white photograph of the construction of Claerwen Dam.



Black and white aerial photograph (postcard?) of Claerwen Dam and the Claerwen Reservoir.



A black and white photograph of Queen Elizabeth II at the opening of Claerwen dam, 23rd October 1952.

## 1965

The first Site of Special Scientific Interest (SSSI) was designated on the Estate in 1965.

## 1974 - 1989

In 1974, the individual water companies were designated, and Dŵr Cymru Welsh Water was given responsibility for the Elan Estate, dams and reservoirs. The Elan Valley Visitor Centre opened in 1985. The Visitor Centre receives nearly 200,000 visitors a year, while nearly half a million people visit the wider estate.

In 1989 the Elan Valley was included in the Cambrian Mountains Environmentally Sensitive Area and The Elan Valley Trust was established. The Trust's charitable responsibilities include protecting the wildlife of the estate and encouraging public access and understanding while Dŵr Cymru's responsibilities include the Visitor Centre, forestry, woodlands and the major footpaths through the estate.



A colourised photograph of the stone and metal sign direction visitors to the Elan Valley Visitor Centre.

## 1995

In 1995, Elenydd-Mallaen was designated a Special Protection Area under the European Wild Birds Directive.

**2015**

The Elan Valley Estate achieved International Dark Sky Park status and became the first privately owned but publicly accessible park in the world to do so.



A night sky filled with stars over Caban Coch reservoir, credit David Tolliday.

---

## **Possible questions to discuss**

*Why do you think Birmingham needed to look so far away for clean water in the 1800s?*

*What makes the Elan Valley a good place for collecting and storing water?*

*How do you think life changed for the people who lived in the valley when the reservoirs were built?*

*What kinds of jobs might the workers have had when building the dams?*

*How does water get from the Elan Valley all the way to Birmingham without pumps?*

*What wildlife do you think lives around the reservoirs and why might the area be good for animals and plants?*

*How might the landscape look different today compared to before the dams were built?*

*Why is it important to take care of natural places like the Elan Valley?*

*If you were designing a reservoir, what features would you include to make it work well and look nice?*

*How does learning about the Elan Valley help us understand where our own water comes from?*

## **Activities and Experiences**

### *Build a Mini Reservoir Model*

*Using trays, clay, stones, and water, children create a simple landscape and build a “dam” to see how reservoirs store water.*

### *Water Cycle in a Bag*

*Learners draw the water cycle, place a little water in a sealed plastic bag, and tape it to a window to observe condensation and evaporation—linking it to how the Elan Valley gathers rainwater.*

### *Timeline Creation*

*In groups, pupils arrange key events (e.g., valley communities, Victorian plans, dam construction, Claerwen opening) to build a visual timeline of the Elan Valley’s history.*

### *Engineering Challenge: Build a Strong Dam*

*Using classroom materials (cardboard, Lego, blocks), children design and build the strongest dam possible to withstand a small water flow.*

### *Mapping the Elan Valley*

*Provide a map outline and ask pupils to add reservoirs, rivers, and dams. Older pupils could compare historic and modern maps to see how the landscape changed.*

### *Debate: “Was Building the Reservoirs Fair?”*

*Split the class into groups—farmers living in the valley, engineers, Birmingham residents—and discuss different viewpoints.*

### *Nature Detective Activity*

*Show photos of Elan Valley wildlife and have students identify habitats, food chains, and why certain species thrive there.*

### *Diary Entry Writing*

*Children write a short diary entry from the perspective of a worker building the dam, a child living in the valley, or an engineer visiting from Birmingham.*

### *Water Conservation Challenge*

*Link past to present—students create posters or pledges showing how they can save water at home and school.*

### *Virtual or Classroom “Tour”*

*Use images or a slideshow to “walk” through the dams and reservoirs. Pupils take notes and then create a brochure describing what visitors might see and learn at the Elan Valley.*

## **Key concepts**

### *The Humanities*

- *Investigate*
- *Interpretation*
- *Change and continuity*
- *Places*
- *Human Impact on the World*
- *Justice, inequality and rights*
- *Social Action*
- *Ethical and moral questions*

### *Science and Technology*

- *Design and innovation in real-world contexts*
- *Making design decisions*
- *Communicating design ideas*
- *Using tools, equipment and materials safely*
- *Creating models and prototypes*
- *Ecosystems and the natural world*
- *Chemical reactions*
- *Extracting, refining and analysing materials*
- *Waves and how energy travels*

## *The Expressive Arts*

- *Understanding context in creative works*
- *Communicate ideas*
- *Exploring purpose and meaning*
- *Develop and refine designs*

## *Health and Wellbeing*

- *Social Influences and Norms*
- *Identity and Values*
- *Rights and Respect*
- *Types of Relationships*

## *Languages, Literacy and Communication*

- *Listen with empathy*
- *Reading Strategies*
- *Draw a conclusion*
- *Vocabulary Development*
- *Communicate effectively and communicate ideas and opinions (Orally)*
- *Cooperation and discussion*
- *Writing for different purposes and audiences*



**Casgliad y Werin Cymru**  
**People's Collection Wales**