

A HISTORY OF ADEL DAM NATURE RESERVE

The early days

Roman remains discovered in the field next to Adel Dam are thought more than likely to extend into the reserve. The Roman settlement at Adel was a significant one with villas and a fort, sited on the York to Ilkley road which crossed the beck inside our reserve. There is a possibility (although no evidence) that a water mill might have been here; the Romans certainly had the technology.

The earliest written record of a mill here is in a twelfth century document.

The 1770 Jeffery's map shows a lake, the beck and a mill here. The lake shape and size is similar to our present lake, possibly retained by a small embankment or was this a natural lake?

The current dam

The current embankment is thought to have been constructed in the 18th century. The Adel Enclosure Award map of 1809 shows the dam with beck flowing in and goit flowing out. The Ordnance Survey maps up to 1930 indicate a measured water area of 7.368 acres.

The outlet to the eastern end of the embankment formed the outfall to the goit and back to the original beck. Water can still be seen to be discharging as it was always intended to do back into the beck. The goit outfall is now closed. A chamber big enough for people to stand up in and possibly to maintain the channels and equipment is sited between both outfalls. The stone roof to this chamber also doubles as an overflow and would allow excess water to pass over or timber boards could be inserted into vertical grooves cut in the stone on each side to increase the water capacity in the dam.

Black Hill Dam (later Golden Acre Park)

This new dam situated upstream of Adel Dam was constructed in 1823 and was some 25 acres in size. In 1829 following a storm in the area, the water level rose and overtopped its embankment bringing down 20 yds length of its construction. The dam was recorded as having emptied within two hours. The resulting tsunami across Adel Dam must have been immense. There was no loss of life or injury but considerable damage and material loss occurred as the wave swept on through Leeds and into the river Aire some six miles away. The newspaper reports at the time do not mention any damage to our embankment. However, massive movement can still be seen at the original outfall, which must have occurred at this time.

Overflow/Spillway

When constructed Adel Dam allowed for a surge of storm water only from the beck, hence the small overflow included. It did not anticipate that a new much larger dam would be constructed or the risks that that would pose. Following the collapse of Black Hill Dam and the subsequent damage to Adel Dam an additional larger overflow was constructed at the western end of the embankment. This is shown on the Tithe map of 1848 and all subsequent ordnance survey maps starting with the first of 1851.

1843 Adel Reservoir Act

The work required by this act would have increased the water capacity of the dam but it was not carried out because the demand for water diminished due to the increased use of steam power.

Trees

An estate map dated 1866 shows trees on one side of the dam. Mr Edison the owner at the time planted more trees around the dam and the reserve has been described as a Victorian garden and an arboretum, there being so many different species of tree.

Swallows and Amazons

Arthur Ransome was born and bred in Leeds, is known to have stayed with the Edison family and boated on the lake in his youth. It is possible that the setting of Adel Dam later provided him with the inspiration to write his series of books Swallows and Amazons.

1930 Reservoir Act

This Act came about as a result of an embankment collapse in Wales in 1925 when the resulting flood brought down an embankment to a second reservoir, resulting in the loss of 25 lives. The 1930 Reservoir Act requires that any reservoir exceeding 5 million gallons water capacity would have to pass a safety check. Adel Dam exceeded this amount and bearing in mind that the use of waterpower had finished it was easier and cheaper to remove the new overflow and permanently lower the water level. This lowering occurred prior to the issue of the 1936 Ordnance Survey map, which shows a reduced water area of 1.55 acres, which still exists today.

Picture

The large mural in the adjacent Golden Acre park café is reproduced from an aerial photograph taken during the open years (early 1930's) of the leisure complex in Golden Acre (formerly Black Hill Dam). The view shows predominantly the Golden Acre leisure complex but large areas of open countryside can be seen in the background including Adel Dam. The view shows that the water level is as now and

the embankment can just be seen. The original water area is totally open – compared with today's dense central area of wet woodland.

Nature Reserve

The Dam became a nature reserve in 1968 and was managed by the Leeds Bird Watchers Club for many years. A film made in 1970 for the Yorkshire Naturalists' Trust called "The Spider's Web" includes footage of Adel Dam. It shows water cascading over the spillway, volunteers working on a bridge and Canada geese and young on the lake.

Eventually reserve management was taken on by the Yorkshire Wildlife Trust in 1986. A group of volunteers currently help to maintain the reserve.