

## The Kentmere Reservoir and local Water Mills

By Joe Scott October 2003



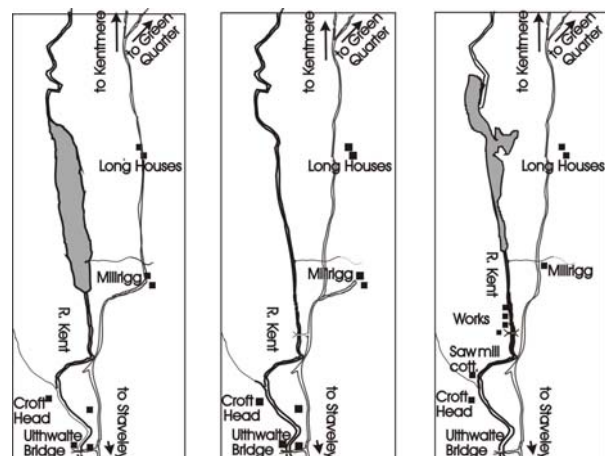
Kentmere Reservoir in 1998  
from Lingmell End

In 1851 there were nearly twice as many people in the Staveley-Kentmere-Ings area as there had been fifty years earlier – 1667 compared with 858 in 1801. And since transport was slow and expensive all these extra people had to live on what local farms produced, so farming did well in these years, and landowners and others were ready to invest in improvements. They enclosed commons and improved land throughout the Kent valley by walling, liming and draining. Nether Staveley Common was enclosed in 1816, Hugill Common in 1838 and Over Staveley in 1852. In Kentmere there was no overall Enclosure Act, but in the early 1830s Christopher Wilson of Rigmaden, Lord of the Manor and chief landowner of Kentmere and his tenant William Martindale of Kentmere Hall Farm drained the waters of Kentmere Tarn so completely that when the 1836 Corn Rent map<sup>1</sup> was drawn there was no tarn there, (*see map, right*) just a river flowing between newly-reclaimed pastures and meadows. In the Kent valley there were many other drainage schemes, though none with so dramatic an effect.

This drainage caused problems for water-mills on the Kent and its tributaries. In the 1840s the Kent powered seven mills in Kentmere and Staveley, and nine others between Cowan Head and Sedgwick, plus four on the Gowan, four on the Sprint and five on the Mint. The growth of industry made possible by this use of water-power

was the main reason for the rise in population and prosperity. But as the Westmorland Gazette put it in August 1844, “*Agricultural improvement in draining land, however beneficial in itself had the effect of depriving the mill-owners of a large quantity of water-power, the waters going down more rapidly and of course much sooner running away. For several years and especially during the past summer great difficulty has been experienced by the mill-owners on the Kent.*”<sup>2</sup>

The Gazette was reporting a meeting called by a



Kentmere Tarn before and after drainage and as it is today

group of worried millowners during a particularly dry summer. They had already made a plan to build a reservoir which “*might store up sufficient water during the season of floods and obviate the*

*inconveniences both of scarcity in dry seasons and an over-abundant supply during thaws in winter - both lack of water and back-water."* Kentmere Head was the obvious choice of site. Draining the ample rainfall of the high fells on three sides, it was an area of rough pasture used in common by the landowners of Kentmere in proportion to the size of their holdings in the four "quarters" further down the valley. Slate quarrying was developing rapidly at this time on the sides of the valley, so access tracks were improving. A surveyor suggested that a reservoir could be built there for about £2000 and that if 15 millowners took part it need only cost them £10 a year each, *"A trifling sum compared with the loss sustained during short water time."* The meeting resolved unanimously, *"That it is considered desirable for the benefit of the trade and the district that reservoirs be formed at Kentmere and*



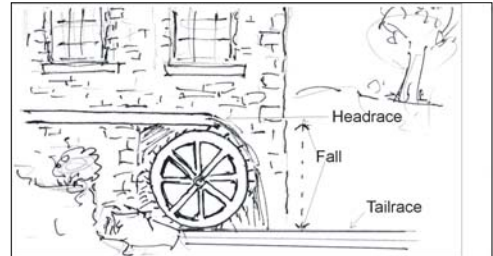
*A romantic drawing of Kentmere Head 1821 showing Steel Rigg quarry from somewhere on the east side of the site where the reservoir was later built*

*elsewhere to render the supply of water in the river more constant and uniform."* They formed a committee with James Gandy of Dockray Hall Mill, Kendal in the chair. Members from Staveley were John Philipson (Ulthwaite Mill), George Suart (Scroggs Mill), John Ireland (Barley Bridge Mill), Benjamin Turton (Chadwick's Mill, later the SWTC). JH Wilson was another member of the committee with strong Staveley interests. In 1838 he had bought most of the Kent valley from Staveley to Ulthwaite, and in 1844 he was investing a great deal in land and farm improvement there, in rebuilding Fellfoot Mill, and in building the Abbey Hotel in Staveley.

The committee worked fast. By November 1844 they had employed J.F. Bateman, a leading Manchester water engineer, accepted his report and arranged for the introduction of a private Act

of Parliament to give them the necessary powers<sup>3</sup>. Bateman's plan was a sweeping one. There were to be four reservoirs, at Kentmere Head, Skeggles Water, Bannisdale and Potter Fell. A Reservoir Commission would be set up and given power to raise a rate on each water mill on the Kent, Mint and Sprint based on the depth of fall of water between its head-race and its tail-race. The Commissioners would borrow money on the security of these rates, and organise the work.

But it now became clear that opinion was no longer unanimous – some people were worried. In December 1844 a public meeting of those opposed to the scheme, chaired by Edward Wilson of Abbot Hall, seems to have drawn a good deal of support from Staveley and Kentmere. John Ireland and Alan Simpson,



owners of Barley Bridge Woollen Mill were there, with Christopher Wilson, Lord of the Manor and main landowner of Kentmere, and Rev. J.G. Elleray, curate of Staveley, who owned Croft Head and Ulthwaite Mill, and nineteen others.<sup>4</sup> When Simpson and Ireland had bought Barley Bridge Mill in 1834 an advertisement (W/G15/6/1833) had claimed that, *"The mill has a governor which directs the speed of the water-wheel and a never-failing supply of water*

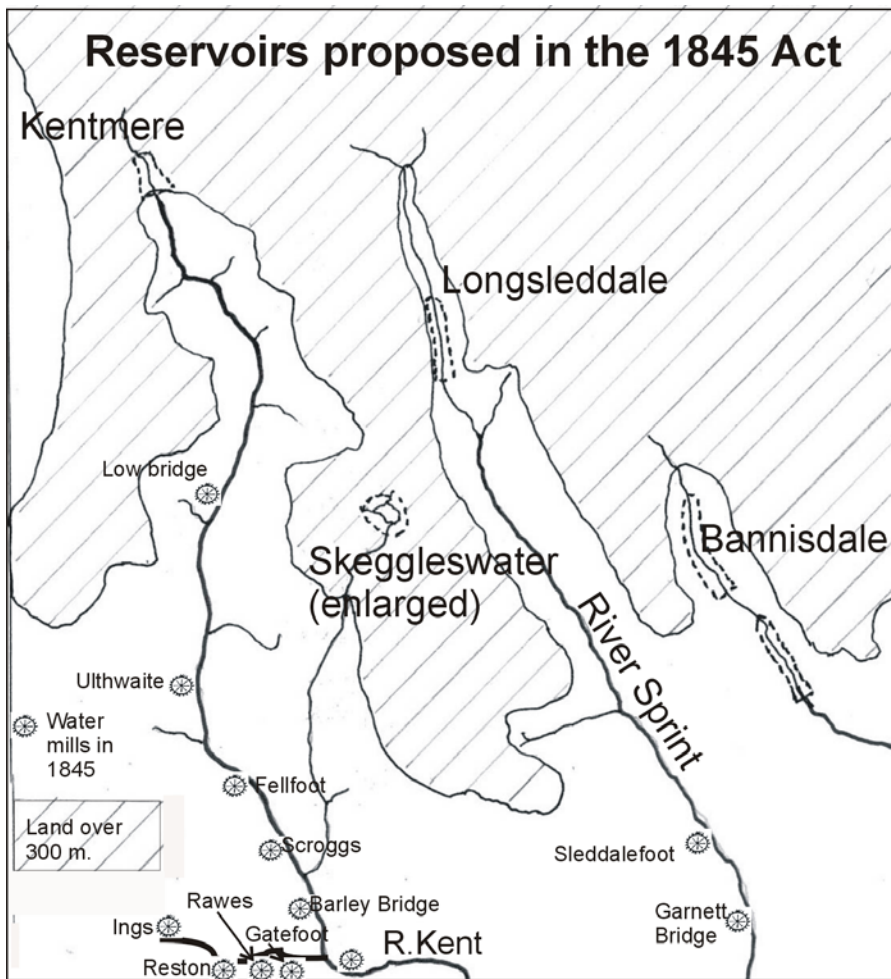
*with a fall of at least sixteen feet, and is well worthy the attention of any manufacturer desirous of making a good investment."*<sup>5</sup> Simpson & Ireland had at first supported the reservoir scheme but now they saw that with a 16 ft fall they would pay higher rates than any other millowners on the Kent except Cornelius Nicholson at Cowan Head where the fall was 21ft. Ireland told the meeting on 7<sup>th</sup> December that in the dry summer of 1844 they *"had lost not a single bale of cloth."* So they had nothing to gain from the proposed reservoirs.

When contributions were invited to an opposition fund, Wilson promised £200, Simpson and Ireland £200 and Elleray £10.

The application to Parliament went ahead in 1845, so the opposition petitioned against the proposal

and the House of Commons Committee on the Bill arranged a compromise. Section 94 of the Act<sup>6</sup> includes the following; “*With a view to removing all opposition to the Bill ... it was*

1848 it had more than doubled - to £13,435. It is not surprising that the three other reservoirs mentioned in Bateman’s 1844 plan never went ahead.



As well as the high cost of the work, there was another reason for not building the other reservoirs - the coming of the railway. Just as it became clear that improved water-power provided by reservoirs was very expensive, that new marvel the railway arrived, promising cheaper coal and so cheaper steam power. The Lancaster and Carlisle Railway Act was passed in 1844, and Oxenholme station opened in September 1846. The Kendal and Windermere Act was passed in June 1845 and its line through Burneside and Staveley opened in April 1847. So cheaper coal and steam power became available in the area just when the new water rates were beginning to bite! In 1850 Castle Mills Kendal, installed a steam engine, in 1859 Chadwicks’s Staveley, in 1868 Fellfoot.

*mutually agreed between the promoters thereof and the parties opposed that the rate to be paid by [Simpson and Ireland] should not exceed £15 per annum as long as they should not use a water-wheel of larger diameter than 16 feet.”* The Act was duly passed in July 1845. It established a Reservoir Commission of the larger millowners on the Kent to organise the work and collect rates to pay for it. Corn Mills like those at Kentmere, Ulthwaite and Barley Bridge were exempt from the rates altogether, and the Commissioners were to allow reduced rates to Simpson and Ireland and to other mills that could make a similar case for it.

In October 1845<sup>7</sup> the Commission signed a contract and building work began. Lambfold Quarry, in the sheer face of Rainsborrow Crag, was developed to supply material for the construction and a level trackbed for a tramway can be traced northward past Steel Rigg to join the present road to the dam.

The cost in the contract was to be £6150, but by the time the work was finished in the summer of

The new Kentmere Reservoir needed an attendant to operate the sluice, so the Commissioners built (for £45) a cottage where he could live rent-free, and in May 1848 they appointed Thomas Robinson to the job at a wage of 8 shillings a week (about what a farm labourer might earn). His orders varied according to the rainfall. For instance on 12 July 1848, presumably a time of drought, he was told to run the water night and day, but not from 8pm on Saturdays to 10pm on Sundays<sup>8</sup>. He would no doubt have time to do other work as well; in the 1851 Census Thomas Thompson of Reservoir Cottage classified himself as “Agricultural Labourer”. A reservoir attendant lived in the cottage till the 1940s.

The use of water-powered mills had expanded greatly in the first half of the 19<sup>th</sup> century. This did not continue in the second half, partly because of the coming of the railway and cheaper steam power, partly because of the decline of local textile and bobbin production due to changes in





The sluice control in 1996, looking north into the empty reservoir during repairs to the dam by Croppers of Burneside.

the 1930s and received its a death blow from the Water Resources Act of 1963 which gave power to the river authority to charge mills for the water they used. Even Kentmere Ltd at Barley Bridge, with their water rate limited by the 1845 Act, gave up using water-power in 1971. Croppers of Burneside whose large and prosperous paper mill depended on a reliable supply of water in the paper-making process, were then the only firm who needed the Kentmere Reservoir and its virtual owners.

the market, partly because improvements in the roads made the more remote mills less economic. The Low Bridge Corn Mill at Kentmere seems to have closed in 1854 and the Ulthwaite corn mill by 1858, probably because of improvements in the roads from Staveley. But the Kentmere Reservoir water rate was another factor. It can be seen clearly in the case of Fellfoot Mill. In 1875 William Philipson paid a rent of £135.18.0 to Edward Johnson the owner and a water rate of £99.4.0 to the Reservoir Commissioners<sup>9</sup>. But the mill was in decline. In 1871 William had employed 56 men and boys, but by 1881 his son James, who had taken over in 1876 employed only 13, and when his lease ended in 1894, no new tenant could be found, partly because of the high water rate. Edward Johnson, the owner of Fellfoot was prepared to reduce the rent to £35 a year and considered that the water rate should be no more than £15. *“Other mills are available where there are no rates, and where the power in the driest season never got so low as the Kent does at Staveley. The place is also at a disadvantage in being some distance from the station and the village,”* wrote George Dean of Barley Bridge Mill.<sup>10</sup> Fellfoot mill stood idle for two years and in 1896 was let to the Staveley Co-operative Bobbin Manufacturing Company, which moved from Gatefoot Mill attracted by a rent of £37.10.0 and presumably a water rate to match. But the move was not a success and in 1900 the Co-op Mill closed down and in 1902 Fellfoot was demolished.

The decline of water power continued in the 20<sup>th</sup> century, hastened by the coming of electricity in

## References

- Much of the information in this paper is based on the article “Kendal reservoirs” by **PN Wilson** in the Transactions of the C&WAAS, 1973, pp 326-347  
 See also **Christopher Gregory** “Extractive Industries of Kentmere” S&DHS Occasional Paper 2000  
**Joe Scott** “Staveley Co-operative Bobbin Manufacturing Society 1880-1900” S&DHS Occasional Paper 1996  
<sup>1</sup> KRO WQR/C9  
<sup>2</sup> Westmorland Gazette 24/8/1844,  
<sup>3</sup> Westmorland Gazette 23/11/1844  
<sup>4</sup> Westmorland Gazette 14/12/1844  
<sup>5</sup> Westmorland Gazette 15/6/1833  
<sup>6</sup> The Act is in KRO WSR/1 A9  
<sup>7</sup> KRO WSR/1 A11  
<sup>8</sup> Reservoir Minute Book KRO WSR/1 A1  
<sup>9</sup> Ledger of Fellfoot Mill 1870-1880 formerly in possession of late Fred Unsworth of Staveley. Notes by Joe Scott 1996  
<sup>10</sup> KRO WSR/1 A23-6