

## THE RESTORATION OF THE COTSWOLD CANALS : AUGUST 2011 UPDATE

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### Introduction

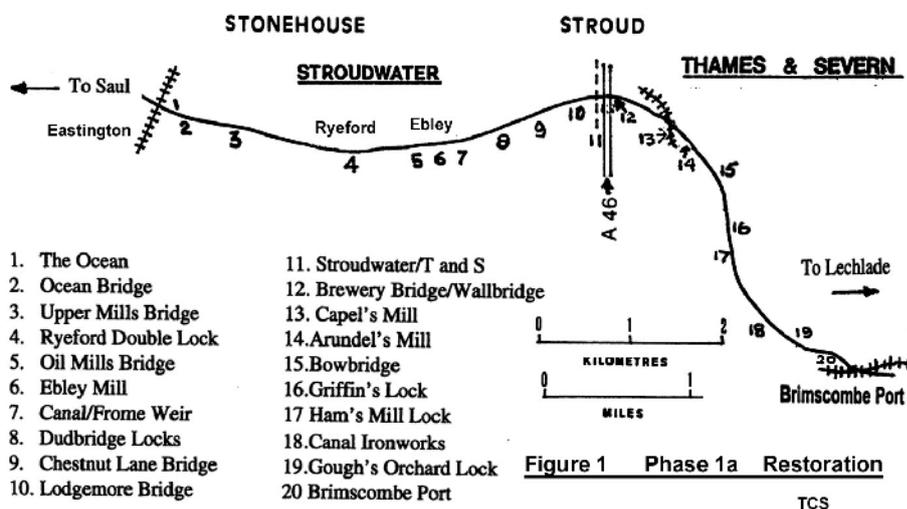
One hundred years after the last recorded commercial passage through the Sapperton Tunnel (1), clearly visible signs of canal restoration continued to grow. Two new road bridges completed since the last report (2), two more soon to be under construction and the Stroudwater in water again from Ebley to The Ocean - enjoyed by many from nearly three miles of newly restored towpath - are just some of those west of Stroud. A newly dredged canal between the Spine Road and Cerney Wick, the restoration of Eisey Lock nearing completion, Ruck's Bridge now in good condition and the start of work at Inglesham Lock all bode well for further advances at the eastern end of the Thames and Severn. This real progress at key sites and other developments are described in this report, together with a summary of further work now initiated or planned.

### Phase 1a Brimscombe Port to The Ocean, Stonehouse

Ten years ago the route of the Cotswold Canals was published in the GSIA Journal (3). An abridged version covering the length now being restored in Phase 1a may well be timely. The location of sites mentioned in this report are shown in Figure 1.

There were many sighs of relief when the long delayed newly-named £1.8 million Stroud Brewery Bridge carrying the A46 over the Thames and Severn Canal at Wallbridge opened to traffic on 21 July 2011. Started a year previously, with completion originally scheduled for late November, 2010, it was increasingly beset by unforeseen difficulties. Heavy rain followed by flooding from the Slad Brook which flows into the canal at this point, icy conditions, complications with utilities, delays in putting finishing touches to the structure, and complex road surfacing works all added to the delay. Finally it was decided to allow the majority of the canal works beneath the bridge to be completed before the bridge was opened to traffic.

Difficulties of a different type, as well as the cold weather, were successfully overcome at the end of 2010 when the new fixed £400,000 Upper Mills Bridge opened to traffic before Christmas. Problems with badgers and nesting birds had been resolved. The canal channel was moved approximately six metres to the north to give a slightly longer approach from the south compared with previously.



This enabled the gradient of the approach road to be sufficiently low to meet modern regulations whilst still achieving adequate clearance under the bridge. Construction work and excavation of the new channel was completed early in 2011.

The refurbishment of the Ryeford Double Lock chambers was also completed early in 2011. A set of six new gates costing £80,000 has been generously donated by a Cotswold Canals Trust (CCT) member Jon Lyons. These are being kept under humid conditions at Brimscombe Port until they can be installed when the water supply from Ebley has been restored.

Dredging of the 1.6 mile stretch of canal between the Ocean Bridge and Ryeford Double Lock followed its refurbishment. GSIA were requested to carry out the archaeological monitoring of the material removed from the canal. This turned out to be the usual predictable modern rubbish such as broken boughs from trees, traffic cones and a variety of metal, stone and plastic objects. The canal was only dredged to a depth of 1.1 metres as leisure boats require less depth of water than their working predecessors did. The mud removed from the canal was spread on a nearby field to a depth of about 4 inches.

In April and May, Seven Trent water rerouted two water mains in the canal just above the locks so that they now lie below the canal bottom. Funds are now available to relay the sewer just west of the Oil Mills Bridge. This will enable that bund to be removed: water will then flow.

Few canal walkers can have failed to appreciate the newly constructed two metre wide towpath between The Ocean and Ebley. Half-a-mile remains to be completed, together with some surfacing. The work was undertaken by REACH, a community 'not for profit' organisation. This aims to provide activities which promote education, training and employment, and discourage antisocial behaviour. It includes members of the community who are long-term unemployed, those sentenced to undertake community payback, and those who are at the risk of exclusion from school or have profound learning difficulties.

This is just one example of the major contributions made by volunteers. Another is the restoration of Gough's Orchard Lock at Brimscombe and Eisey Lock, where for several years now the Waterways Recovery Group (WRG), part of the Inland Waterways Association (IWA) have had Summer camps and work parties. This volunteer organisation, organised and subsidised by the IWA, enables young people to recover, restore and preserve disused waterways.

Much continues to be done by CCT members who will take a major role in restoring Bow-bridge, Griffin's, and Ham's Mill locks over the next few years.

The huge amount of work undertaken by these and other volunteers all helps to offset the equivalent costs which would otherwise be incurred with traditional contractors.

Looking ahead to other restoration projects in Phase 1a, work is expected to begin in September 2011 on replacing two more bridges. A fixed bridge at The Ocean is being replaced by a manually operated traditional swing bridge similar in style to that originally installed in the early 1780s, and the fixed bridge at Chestnut Lane, Stroud, by a 44 tonne electro-hydraulic swing bridge, capable of carrying heavy lorries. Arrangements to replace a third fixed bridge at Lodgemore Mill with a swing bridge have not yet been finalised. Plans are now well advanced to open the water channel again between Ebley and Wallbridge. It is hoped that much of the displaced soil can be used to level the lower playing field at Marling School.

The work will include the restoration of the two Dudbridge locks and the construction of a new confluence weir at Frome Gardens. This is planned to start in September 2011, with a completion date of April 2012. The new weir would enable the water level in the canal to be raised as far as Wallbridge, although not yet at a depth as to permit navigation. Tenders have been invited for repair work at Wallbridge Upper Lock.



Figure 2 The new Stroud Brewery Bridge looking east

An associated project outside the canal restoration proposals is to incorporate a hydroelectric turbine in Dudbridge Lower Lock. The electricity generated would eventually provide a significant income towards the costs of maintaining the restored canal. The turbine house, chamber and pipe-

line (but not necessarily a turbine itself and related equipment) would need to be installed during the reconstruction of the lock. Funding of £300,000 from potentially interested sources and the Energy Fund is being sought.

Designs for the realignment of the former canal through Capel's Mill at Stroud near the Waitrose supermarket were displayed for public comment from 2 - 4 June 2011. A planning application has now been made. A new canal route is necessary because in the 1990s the new road by-passing Stroud (Dr. Newton's Way) was laid along part of the line of the canal going under the railway arch. Complicated by land filling of the canal and adjacent areas with builder's waste and domestic refuse, compounded by topographical constraints, the key features of the proposed scheme are the construction of a new 300 metre stretch of waterway linking the Wallbridge and Arundel pounds. This would not affect the existing River Frome corridor and the scheme is designed to minimise the impact on both the landscape and wildlife diversity. Sites of heritage value such as the remains of Capel's Mill would be protected.

Further east, a bund will soon be placed across the canal at Griffin's Lock to enable the restoration of the lock by the CCT to be started. Approaching Brimscombe, plans to restore the canal through the Canal Ironworks site are still under discussion. A compulsory purchase order was served in January 2011.

Development plans have been delayed at Brimscombe Port itself. A decision on granting outline planning permission for more than 200 homes, shops, restaurants and workplaces was deferred by Stroud District Council (SDC) on 14 June 2011. Six industrial buildings would have been demolished prior to the construction of the flats, houses, commercial sites and leisure facilities. Some of these would be on an island site almost completely surrounded by water. Possible future plans are still being discussed with potential developers: four developers have been invited to submit bids for redevelopment.

### **Phase 1b: The Ocean to Saul Junction**

First attempts at restoration are not always successful. The timber used to make the lock gates installed at the Blunder Lock in 1992 was not good enough. The gates have rotted and are not repairable, and the whole set need replacing at a cost of £50,000. Moreover, the lock cannot be used. Attempts to resolve problems caused by the failure of some plastic components in the bridge deck at Bond's Mill have not yet been successful. Steel plate overlays enable the bridge to be used but a longer term solution is in mind if funding can be arranged.

Now that the Phase 1a restoration is well in hand a Heritage Lottery Fund (HLF) bid covering the 4 mile stretch onwards from The Ocean to Saul is being prepared. Much of the stretch up to Eastington was restored by the CCT between 1978 and 1994, but further work is needed from then on. Most of the former canal is just not there. Outline schemes for the realigned canal to pass under the M5 have already been devised.

Currently it seems likely that the total cost of Phase 1b could be as low as two-thirds of the original £25 million British Waterways estimate. The Partnership has initiated exploratory talks with HLF to see what level of support it might be able to offer, and what matched funding would be needed before Phase 1b could be started. In the present economic environment it would be unrealistic to expect the SDC to continue its support at the current Phase 1a level but continuing leadership from their present project team would be most welcome.

### **Phase 2: Inglesham to the Cotswold Water Park:**

The towpath between Siddington and Cerney Wick continues to be kept clear by CCT volunteers. On a larger scale, the dredging of the canal between Spine Road and Cerney Wick started in September 2010 was not without its problems. These included the need to organise wild life studies, and liaising with Scottish and Southern Electricity whose 33KV power lines were perilously close to some of the dredging action. Many trees were cleared to ensure the safety of the dredger and ongoing security of the power lines. The project was only made possible by the cooperation of other organisations including Gardiners of Eastcombe and many helpers. At this stage, the whole pound is unlikely to remain in-water permanently but more water will be visible at the Spine Road end, and flooding of the towpath and the adjacent land much reduced. Certainly the whole stretch has a new look due to the extensive clearance that was necessary, but the waterway is still obstructed by a water main just above the canal (5).

It is hoped that this will be the final year of the Eisey Lock restoration programme. Dig Deep, the consortium comprising five individual and WRG groups, together with other WRG activities have produced impressive results here as at Gough's Orchard Lock. Three summer camps and a series of weekend working parties should enable the work to be completed.

It is planned that the restoration programme will then move on to Inglesham Lock, where the WRG and CCT volunteers are taking a major role in clearing trees and other works. The IWA Tom Rolt appeal for £125,000 to restore and recommission the lock and to purchase a further 380 metres of land above the lock has already reached £50,000. What is also remarkable is the rate at which invasive Himalayan balsam has grown over what was essentially a cleared site in the space of a few months during the spring and summer of 2011. As elsewhere along the canal route, nature does not take long to negate the efforts of man when the waterway cannot be used. Everything regained is something to be maintained.

Much design and planning work is being undertaken to optimise further work at Inglesham. Eventually this will be the Thames gateway to the restored canal. A planning application covering the canal entrance area has been submitted: the imminent Dig Deep/WRG programme

from mid August 2011 onwards will effect significant improvements. Members of the public cannot visit the area yet.

### **General**

With more diverse restoration activities now being undertaken at increasing pace than at any time since these reports have been published, it is appropriate to pay tribute to Paul Coupe, the SDC Canal Project Manager. He decided to leave his post at the end of April 2011 for personal and family reasons, but during his leadership he did much to ensure that Phase 1a moved forward efficiently and expediently. Two of his team, Paul Caine and Dave Marshall, have taken on additional responsibilities as an interim measure to maintain the momentum.

### **Reservoirs**

The restored canal is likely to eventually need some reservoirs to keep it filled. The possibility of using one existing Cotswold Lake is being explored (4). However, there are complex issues to be considered. These include the varying effects on existing water supplies to the Thames and Severn of the current gravel extractions in the Cotswold Water Park and more eastern areas.

Further afield, it was reported in the last Journal (2) that Thames Water was proposing to build a large reservoir at Abingdon to satisfy growing demand for water from its customers. The CCT objected because it felt insufficient consideration had been given to the alternative possibility of using the Cotswold Canals route to the River Thames as a means of transferring water from the River Seven.

At the five week public inquiry which started in June 2010, the Government Inspector agreed. The proposal to build a large reservoir was rejected at this stage in her report published in May 2011. Her conclusion was accepted by the Secretary of State for DEFRA. Her 25 recommendations for further considerations to be reviewed included one that the Severn-Thames scheme using the Cotswold Canals should be added to the feasible options list. A second referred to another possible Severn-Thames transfer scheme. Needless to say, the CCT will be doing all it can to promote a favourable evaluation of its proposal by Thames Water. It believes it would be a significantly cheaper option than the proposed £1 billion reservoir scheme, quicker to implement and subject to less public opposition. But future events are largely beyond the CCT's influence. It is a wait-and-see situation.

There seems to be a growing need for a water distribution grid in the UK to ensure surplus water is moved from north-western areas with high rainfall to those in the south-east with greater population densities and continuing irrigation needs. This was first proposed 40 years ago. Electricity and natural gas are moved around successfully by grid systems so why not water?

Will the water companies' warnings that it will be a mistake to mix water from Wales with that from the Thames finally be tested via the Cotswold Canals? Suffice it to say at this stage that provision has been made for a possible Seven-Thames water transfer pipe beneath the towpath under the new Stroud Brewery Bridge (5).

### **References**

- (1) Gloucestershire Society for Industrial Archaeology, *News Sheet No. 160*, May 2011.
- (2) Gloucestershire Society for Industrial Archaeology (GSIAJ), *Journal for 2009* p 47.
- (3) GSIAJ, *Journal for 2001*, p 21.
- (4) Cotswold Canals Trust, *The Trow*, No. 153, p. 15.
- (5) *The Trow*, No. 149, p. 8.