

= Stroudwater Navigation =

The Stroudwater Navigation is a canal which linked Stroud to the Severn Estuary in England and Wales . It was authorised in 1776 , although part had already been built , as the proprietors believed that an Act of Parliament obtained in 1730 gave them the necessary powers . Opened in 1779 , it was a commercial success , its main cargo being coal . It was 8 miles (13 km) in length and had a rise of 102 feet 5 inches (31 @. @ 22 m) through 12 locks . Following the opening of the Thames and Severn Canal in 1789 , it formed part of a through route from Bristol to London , although much of its trade vanished when the Kennet and Avon Canal provided a more direct route in 1810 . Despite competition from the railways , the canal continued to pay dividends to shareholders until 1922 , and was not finally abandoned until 1954 .

Even before its closure , there was interest in retaining the canal for its amenity value . The Stroudwater Canal Society , which later became the Cotswold Canals Trust , was formed in 1972 . Following initial hostility from the Proprietors , who had not been stripped of their powers when the canal had closed , agreement was reached and work began on restoration of the waterway . The project gained popularity , and in 2003 , a bid was made to the Heritage Lottery Fund for £ 82 million to restore both the Stroudwater Navigation and the Thames and Severn Canal . The project had to be split into smaller parts , and only the first phase has so far been funded in this way , when a grant of £ 11 @. @ 9 million was confirmed in 2006 . With match funding , this was to enable the section from ' The Ocean ' at Stonehouse to Wallbridge to be reopened , together with the Wallbridge to Brimscombe Port section of the Thames and Severn .

A second bid to the Heritage Lottery Fund for the connection from Stonehouse to the Gloucester and Sharpness Canal at Saul was rejected in 2007 . This section presents some engineering challenges , as it was severed by the construction of the M5 motorway and the A38 road . The roundabout where the A38 joins the A419 road was built over Bristol Road Lock , and part of the route was destroyed by flood relief work for the River Frome . At Stonehouse , the bridge carrying the Bristol and Gloucester Railway has been replaced by a culvert , but a bid has been made to the newly formed Gloucestershire Local Transport Board for its reinstatement , and to create a long @-@ distance footpath along the route . Outside of the main restoration , the Cotswold Canals Trust are gradually restoring many of the other structures , with the ultimate goal of re @-@ opening a link between the River Thames and the River Severn .

= = History = =

= = = Construction = = =

The first plans for making the small River Frome , also known as the Stroudwater , navigable date back to the last three years of the 17th century . The plan was to serve the woollen industry , by carrying coal from the Severn to Stroud and transporting the finished cloth away to markets , but it was opposed by mill owners , and it came to nothing . The idea was revived in 1728 , when John Hore , who had previously succeeded in making the River Kennett navigable , suggested a canal around 8 @. @ 2 miles (13 @. @ 2 km) long , with 12 locks , suitable for 60 @-@ ton barges . An Act of Parliament was obtained in 1730 , with support from those who worked in the cloth industry , but opposition from some of the millers , but it seemed to ignore Hore 's recommendations , in that it was again based on making the river navigable . As the millers were given powers which would have effectively shut the navigation for two months each year , and the tolls were set at a level which would have discouraged traffic , no further action was taken .

John Dallaway , who had been appointed as a commissioner under the 1730 Act , commissioned the engineer Thomas Yeoman to make a new survey in 1754 , and his new plan was published the following year . It was for a navigation from Wallbridge to the Severn , estimated to cost £ 8 @, @ 145 , which would require 16 locks and four stanks (which were probably half @-@ locks or staunches) . In order to placate the millers , water for the operation of the locks would be provided

by a reservoir below Wallbridge , which would cover 2 acres (0 @. @ 8 ha) and be filled on Sundays , when the mills were inactive and would not be needing the water . Tolls were set at a more realistic level . While support and finance for the scheme were being gained , John Kemmett , Arthur Wynde , James Pynock and Thomas Bridge devised a scheme which used cranes at each mill weir to transfer cargo , stored in boxes , from a boat on one level to another on the other side of the weir . An Act was obtained in 1759 which authorized Kemmett and the others to construct the canal without any locks to avoid loss of water to the mills . The Act allowed two years for completion of the scheme , and although some progress had been made by April 1761 , Kemmett was given an extension of six years at that time . After about 5 miles (8 km) of river had been improved , the works were abandoned as being too costly .

By 1774 , canal building was much better understood , and a new attempt was made . The plan was led by Dallaway 's son William , who asked Thomas Dadford , Jr . , the engineer on the Staffordshire and Worcestershire Canal and John Priddy , who had been the engineer on the Droitwich Canal during its construction , to carry out a survey . The cost of a canal which avoided the river and hence the mills , was put at £ 16 @, @ 750 , and soon £ 20 @, @ 000 had been raised . Deciding that they did not need a new Act of Parliament , since the powers of the 1730 Act were still valid , Yeoman , who had carried out the 1754 survey , was asked to survey the route again , and a route was selected , which would require 12 locks . Work started , with Samuel Jones as engineer , but he was replaced by Priddy within a month . A challenge to the legality of building a canal under the 1730 Act was mounted by landowners and millers in 1775 . An injunction was obtained , and the Gloucestershire Assizes ruled that the Act did not cover the work . A new Act was obtained on 25 March 1776 , authorising the raising of £ 20 @, @ 000 and an extra £ 10 @, @ 000 if required . Both sides commissioned the writing of poems to support their causes .

Work resumed under the supervision of Priddy , but he was soon replaced by Edmund Lingard , who had been the engineer for the Coventry Canal . The canal was opened in stages as it was completed . It reached Chippenham Platt at the end of 1777 , Ryeford in January 1779 , and it was open throughout to the Wallbridge terminus on 21 July 1779 . It had cost £ 40 @, @ 930 , which had been raised by calling £ 150 on each £ 100 share , by borrowing money from the shareholders , by running up debts , and by using the tolls from the parts of the canal which were already open . Traffic was around 16 @, @ 000 tons per year , which enabled the company to repay the debts and to declare a first dividend of five per cent in 1786 .

= = = Operation = = =

The locks were suitably sized for Severn Trows , which were 72 by 15 @. @ 5 feet (21 @. @ 9 by 4 @. @ 7 m) , and could carry 60 tons . The canal was not provided with a towing path for horses . Some boats sailed along the canal , but most were bow @- @ hauled by men . Framilode lock at the entrance to the canal was a tide lock , with multiple gates to cope with all states of the tide . When a vessel arrived at the junction , a rope would be taken from it to the shore , and attached to a capstan , which would then be used to haul the boat into the lock . Once the canal was open , the Proprietors worked hard to improve the facilities , and a number of warehouses were built . Many of the shareholders were also involved with the Thames and Severn Canal scheme , which was completed in 1789 and provided a through route between Wallbridge and the River Thames at Lechlade . The navigation was seen as a commercial waterway ; pleasure boats were discouraged by the imposition of a charge of £ 1 (2012 : £ 109 @. @ 00) for the use of each lock .

The main cargo carried was coal . In 1788 , a group of shareholders set up a coal committee , and began trading . At first , the product came from the Staffordshire coalfields , travelling via the Staffordshire and Worcestershire Canal , or from the Shropshire coalfields , but this was later supplemented by coal from the south Gloucestershire mines and then the Forest of Dean . This profitable business continued until 1833 . Boats that worked the canal included Severn Trows , a type of sailing boat which was fitted with ketch , cutter or sloop rigging . Many were later converted for use as dumb barges by removing the masts , but none are known to have survived to the present day .

In 1794 , a basin was built above Framilode lock , so that vessels could wait there until the tide in the Severn was at a suitable level . This had been requested by the Thames and Severn Canal company , but requests for a horse towing path in 1799 and 1812 were dismissed as too expensive . They eventually provided one after the Gloucester and Berkeley Canal had been built , and the canal was the only part of the waterway from Shrewsbury on the Severn to Teddington on the Thames that did not have one . It was completed in August 1827 . The opening of the Gloucester and Berkeley Canal in 1825 required a slight diversion where they crossed at Saul , and the levels were adjusted by building a new lock on the Stroudwater below the junction , to ensure neither company lost water to the other . The new company paid for its construction . > After the Gloucester and Berkeley Canal opened to Sharpness in 1827 , the link between Saul and the Severn at Framilode was used much less , although coal from the Forest of Dean still used that route .

Traffic , receipts and dividends steadily increased . Tolls rose from £ 1 @, @ 468 in 1779 to £ 6 @, @ 807 in 1821 . The first dividend of 3 @. @ 75 per cent was paid in 1786 , and had reached 15 @. @ 78 per cent by 1821 . Figures for tonnage are not available for the early years , but were 79 @, @ 359 tons in 1821 . There was a dip in the carriage of merchandise in 1810 , when the Kennet and Avon Canal opened and provided a more convenient route from Bristol to London , but it picked up again after 1819 , when the North Wilts Canal opened , providing a link from Latton to Abingdon via Swindon and the Wilts and Berks Canal , which was easier than using the Thames . The highest dividend paid was in 1833 , when shareholders received 26 @. @ 33 per cent , after which receipts and dividends steadily dropped . In 1859 in order to allow the passage of a coal barge called the Queen Esther two of the locks were widened .

= = = Decline = = =

The first threat from a railway came in 1825 , when there was a proposal for a line from Framilode Passage to Brimscombe Port . The canal tolls were reduced as a bargaining tool , but the promoters went ahead with their bill . The Stroudwater Company opposed it and it was defeated in Parliament . The Great Western Railway opened a line from Swindon to Gloucester in 1845 , which passed through Stroud , but the effects on the canal were rather less than the effects on the Thames and Severn . However , in 1863 the Stonehouse and Nailsworth Railway Act was passed , allowing the construction of a railway from Stonehouse to Dudbridge and Nailsworth that directly competed with the canal . Dividends fell below 5 per cent after 1880 although they did not cease entirely until 1922 . Around the same time the connection to the Severn at Framilode became blocked leaving the connection to the Gloucester and Sharpness Canal as the only link between the canal and the River Severn . The last toll was paid in 1941 , and most of the canal was formally abandoned by an Act of Parliament granted in 1954 . Although this removed the need to maintain the waterway for navigation , the Company of Proprietors was not disbanded , and retained most of their other powers . It consists of those who now own the original shares , although over half of the shares were transferred to a Trust in the 1950s , which prevents hostile takeovers and ensures that the company will always be run for the benefit of the communities through which the canal passes . After the closure of the canal the canal company continued to generate income for many years through the sale of water and some monies produced by property holdings .

= = Restoration = =

Interest in maintaining the canal for its amenity value began before the canal closed , with the Inland Waterways Association mounting a campaign to retain it when plans to close it were first announced in 1952 . They were already formulating plans for the revival of the Thames and Severn Canal , which depended on the Stroudwater for its link to the River Severn . The National Parks Commission declared that it should be retained for its amenity value and beauty in 1954 , but it was closed nevertheless .

The publication in 1972 of Lost Canals of England and Wales , a book by Ronald Russell , resulted in a number of canal restoration societies being formed . The Stroudwater Canal Society was one of

them , which was renamed the Stroudwater , Thames and Severn Canal Trust in April 1975 as the scope of the project expanded , and became the Cotswold Canals Trust in July 1990 . Although the Proprietors were initially hostile to the Trust , attitudes changed , and in 1979 granted them permission to start work on the section from Pike Mill Bridge to Ryeford , so that a trip @-@ boat could be used on it . As attitudes changed , the Proprietors bought back sections of the waterway which had previously been sold off .

= = = Funding = = =

In 2001 , the Cotswold Canals Partnership was established , drawing together people representing the Proprietors , the Cotswold Canals Trust , councils at district and county level , and a number of other interested parties . This provided a suitable structure to drive the restoration forwards . In 2002 , the waterway was identified as being of high priority in the Association of Inland Navigation Authorities report entitled Vision for Strategic Enhancement of Britain 's Inland Navigation Network , and was one of several new projects highlighted at British Waterways ' Unlocked and Unlimited conference held in March . The estimated cost of the project to restore both the Stroudwater Navigation and the Thames and Severn Canal was £ 82 million .

Having raised £ 100 @,@ 000 , the Cotswold Canals Trust lodged the money with the Waterways Trust , in the hope that it could be used as match funding for any grants that might be received . Andy Stumpf became the full @-@ time Regeneration Programme Manager , working on a major bid application to the Heritage Lottery Fund (HLF) to finance the restoration , and the canal was visited by Charles , Prince of Wales , in his capacity as Patron of the Waterways Trust . A Heritage Survey , which cost £ 60 @,@ 000 and was funded by the Inland Waterways Association , was carried out , as was a Community Development Plan and a Visitor Management Strategy , costing another £ 30 @,@ 000 , all of which were pre @-@ requisites for the main HLF bid . By the time the bid was ready for submission , the HLF were under pressure for the funds they had , and asked British Waterways , who were heading up the application , to break the bid and the project into smaller phases . At the end of 2003 , a provisional grant of £ 11 @.@ 3 million was awarded by the HLF , to enable the restoration of the Stroudwater Navigation between Stonehouse and Wallbridge , and the Thames and Severn Canal between Wallbridge and Brimscombe Port . An additional £ 2 @.@ 9 million was received from the European Inter @-@ Regional budget for this first phase . By the time the grant was awarded in January 2006 , it had risen to £ 11 @.@ 9 million , and a further £ 6 million of match funding was received from the South West of England Regional Development Agency .

As part of the process , the Proprietors leased the canal to British Waterways in 2005 . However , British Waterways had to withdraw from the scheme in 2008 , due to financial difficulties , and the role of project leaders was taken over by Stroud District Council . Following the re @-@ organisation , the Stroud Valleys Canal Company was established in March 2009 . It is a limited company , with two independent directors and three directors representing Stroud District Council , the Proprietors , and the Cotswold Canals Trust . Its purpose is to hold the assets for the canals , and its charitable status means that stamp duty land tax does not have to be paid . The company will be responsible for management and maintenance of the canal once it is re @-@ opened . The Department for Transport is in the process of reorganising how funding for major transport schemes is managed , and this has enabled Stroud District Council to submit a bid for £ 1 @.@ 5 million to the newly formed Gloucestershire Local Transport Board . This is to fund the replacement of Ocean railway culvert with a bridge . A second application for £ 650 @,@ 000 has been made to enable part of the Thames and Severn Way long distance footpath to be created . The funding is for the section from Saul Junction to Chalford .

= = = Development = = =

The length being restored in the first phase is around 6 miles (9 @.@ 7 km) long , and presents some of the biggest difficulties to restoration in the whole 36 @-@ mile (58 km) route . Through

Dudbridge , the channel has been used as part of a flood relief scheme by the Environment Agency . Water from the Slad Brook , which is culverted beneath Stroud , joins the Thames and Severn Canal a short distance above Lower Wallbridge Lock , the first on that canal , while the Painswick Stream joins above the Dudbridge locks , and the Ruscombe Brook joins between the two locks . The top gates of the locks were replaced with concrete dams , which maintained the water level at normal flows around 3 @. @ 3 feet (1 @. @ 0 m) lower than the navigable levels . Below the A419 Dudbridge Road bridge , the water was discharged into the River Frome . As a consequence of its flood relief function , the channel here is classified as a " main river " . Designs for reinstatement of the canal have had to accommodate large flows on this section , and include underground bywash culverts , capable of carrying the full flood flow of all three streams . A new weir which carries a towpath bridge has been constructed where the water leaves the canal to enter the River Frome , and a set of floodgates has been constructed beyond the weir , to protect the canal from high water levels .

The second phase of the restoration project will be the section from Stonehouse to the Gloucester and Sharpness Canal at Saul , which has been blocked by both the M5 motorway and the A38 road . A bid was submitted to the Living Landmarks Fund in August 2006 . This is part of the Big Lottery Fund , and £ 16 million was requested . An interim award of £ 250 @, @ 000 was made , to allow the bid to be developed , but the application was rejected in November 2007 . Despite this setback , money for purchasing the land around the M5 and the A38 was part of the phase 1 grant by the HLF . Current proposals for the A38 involve tunnelling under the Whitminster roundabout . The original Bristol Road Lock was buried by the construction of the roundabout , and will be reconstructed to the east of it . There are two proposals for passing under the M5 motorway . One is for a new channel alongside the River Frome through an existing culvert , and the other is for a new wider culvert , nearer to the original line of the canal . Below this , the canal used to cross the River Frome at Lockham Aqueduct , but this was demolished in the 1970s , when the canal and river channel were combined as part of a flood defence scheme .

In November 2007 work started to clear the canal between Ryeford Double Lock and Oil Mills Bridge . Oil Mills Bridge itself has been rebuilt , with the brickwork left after its demolition being incorporated into the new bridge . By mid @- @ 2012 , when the Inland Waterways Association held a trailboat festival on the refurbished canal , as part of an event called " Stroud on Water " , over 2 miles (3 @. @ 2 km) of canal from Ocean swingbridge to the bottom of Dudbridge Locks were open for navigation , as was a second section from the top of the locks to the bottom of Wallbridge Locks on the Thames and Severn Canal . As part of the restoration of the Dudbridge Locks , a hydro @- @ electric installation has been built . The scheme is expected to generate over 100 MWh per year , and income from the sale of the electricity to the national grid will help to fund ongoing maintenance of the canal .

In early 2016 , work began on a £ 210 @, @ 000 project to restore Junction Lock at Saul , after a grant of £ 75 @, @ 000 was received from the Heritage Lottery Fund . The lock will not be made navigable , as the canal is infilled beyond the bottom gates , but new lock gates will be fitted , interpretation signs erected , and access will be improved . The structure was on the English Heritage " Buildings at Risk " register prior to work starting .

= = Links to other canals = =

The canal had links to both the Thames and Severn Canal (at Wallbridge) and the Gloucester and Sharpness Canal (at Saul) .

= = Points of interest = =