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**A TRIP UP THE NORTH WALSHAM & DILHAM CANAL**

In the first week of May the Wayfarer Broads Cruise involving four boats was successful in voyaging up the canal, passing through Tonnage Bridge and reaching the junction with the East Ruston Branch. It was not an easy trip – indeed prior to this the last two crews who had ventured up the canal in larger boats had been thwarted by trees at Tonnage Bridge. Overhanging trees were still a problem with this latest cruise but they were able to sail the last stretch up to East Ruston Staithe which had been de-silted a couple of years ago. A head wind coupled with the opposing current and restriction to the channel made further progress up to Honing Lock too difficult by boat and was explored on foot.



Four boats, all 16ft Wayfarer class dinghies, were involved – *Wuffa* crewed by Mike & Helen Playle, *Ullathorne* (Charles & Clare Ferrar), *Somewhen* (Larissa Barker & Mary Mallard) and *Josh* (James Scott & Bob Tarn). The boats optimistically entered the canal with their masts and sails up but they were unable to dodge the trees. They did, however, manage to sail along the East Ruston branch.



Top: *Sailing up the canal and showing the difficulties of navigating through the trees.*  
Bottom: *Tied up on the East Ruston branch. (Pictures courtesy of Michael Playle.)*

The Association has always attached considerable importance to trips like this on the lower section of the canal towards Honing Lock. This part of the waterway is subject to tidal influence giving a public right of navigation although some interests choose to try and ignore this – at one time even the Broads Authority tried to contest this right. Hence we believe boats do need to use the section if only to reinforce the legal position.

This work was started by the late Michael Helliwell, a local solicitor, who had a major involvement campaigning for the right to use parts of the Broads network. In 1958 he got to within 75 yards of Honing Lock and his boat *Manto* went on to become a regular visitor. Ivan Cane, our archivist, keeps a record of all such trips made or attempted up to Honing Lock.

Well done Wayfarer Broads Cruise for this enterprise and well done Michael Playle who made the arrangements.

## **MIDDLE LEVEL COMMISSIONERS**

As members know following the note in our last issue, the Association has given its overall support to the proposed changes to the Commissioners powers. Mr Iain Smith, the commissioners' Clerk & Chief Executive, has responded thanking us for this backing.

One of our main concerns had been over the exact procedures to be selected in view of the fact that the powers to grant secondary legislation in respect of inland waterways under the Transport and Works Act 1992 are limited. This could delay approval of the powers being sought, limit their effectiveness, leave aspects for subsequent legal challenge and result in unnecessary and possibly unforeseen expense. Hence our suggestion that primary legislation – namely a private Act of Parliament – was likely to be the most effective, economical and timely way to implement the Commissioners proposals.

Mr. Smith has responded saying that the Commissioners are legally required to proceed by a Transport & Works Order unless it is not possible to do so. However, it has now been found that some of the proposed provisions cannot be introduced by a TWAO and they will now be proceeding by way of a Private Bill.

Another of our suggestions was that representatives of the navigation's users should be appointed to the board. This is tricky as currently membership is set by the Middle Level Acts, the default position being set by the 1991 Land Drainage Act. However, it might be possible to secure such a representation through the District Councils who are entitled to appoint a certain number of members.

We are grateful to our Secretary, David Mercer, for his work on this important project and will hope to see the whole matter through to a positive conclusion.



## HERE AND THERE

**THE LOCKGATE:** This was the title of the Great Ouse Restoration Society's quarterly journal that began publication in 1961 and finished in 1978 when the river was restored to navigation up to Bedford. Recently we have been given a remarkable collection of The Lockgate from No 6 (January 1963) to November 1978. The first five are missing in 1961/2, two in 1969 (July & October) and one in October 1971. We are seeking a good home for them. At least three of the directors have bound copies of the complete journal and would be willing to help anyone who wanted to make good the missing numbers. Anyone interested, please contact the Editor (address on page 1).

**PROJECT HEReward:** Under the auspices of the steering group a survey of the 40 Foot waterway between Welches Dam and Horseway locks was carried out in June by David Wootton Photography using a drone. Flying some 60-feet above the level of the waterway the drone produced a detailed picture of the waterway which will be of great help when the time comes to begin the restoration works. These involve clearance of the channel and dealing with the current leakage problem with a suitable water-proof membrane.

On 6 July Welches Dam lock was re-inspected by our member Roy Sutton who has a long record of advising on restoration projects in East Anglia and in Welches Dam Lock in particular. Roy was accompanied by Professor Andrew Storrar and another four members of the Project Hereward team and a detailed report has been drawn up.

**ENVIRONMENT AGENCY NAVIGATIONS:** In February the Environment Agency and the Canal & River Trust set up a joint working group to explore different options for running the 640 miles of EA-managed river navigations. Work to explore the basis for a possible transfer is continuing as both organisations believe the move has the potential to create a more integrated national inland waterway network and a sustainable future for the river navigations.

**BREXIT:** With the changes in Government that have taken place as a result of the decision for the United Kingdom to leave the European Community our Secretary, David Mercer, wrote on 14 July to the Right Honourable Andrea Leadsom, Member of Parliament and Secretary of State for the Department of the Environment, Food & Rural Affairs (DEFRA) to congratulate her on her appointment and urging her to progress the government's stated policy to transfer the waterways currently controlled by the Environment Agency to the Canal & River Trust. David's letter generated a formal thank you from the Minister on 22 July.

**RIVER CAM:** After a successful meeting with Jed Ramsey from the Conservators of the River Cam the Great Ouse Branch of the Inland Waterways Association has agreed to undertake some practical volunteering work and initially this will be based at Baits Bite Lock in Cambridge. Work envisaged includes painting the mitre gates, the railings and the lock edges owned by the conservators but not the equipment owned by the Environment Agency. A general tidying up around the lock and litter picking along the towpath will also be included. The first session took place on the weekend of 9<sup>th</sup> & 10<sup>th</sup> July.

**RIVER GIPPING:** At the beginning of April the River Gipping Trust took delivery of a three-ton Thwaites dumper following a very generous donation from an anonymous source. It will allow the Trust to use it alongside its digger on the on-going work at Pipp's Ford lock and at other sites work sites. The machine cost £7,500 with the dreaded VAT on top.

**RIVER BLYTH:** Following the successful passage of a canoe down the river from Halesworth to Southwold that was reported in our last issue, Council decided at its meeting on 16 June to make a £100 donation via Gerald Burns to the New Reach Working Group's restoration appeal. Gerald reports that the trip itself was not without incident; the section between Mells and Wenhas-ton sluice was completely choked with weed and several fallen trees which meant dragging the canoe across farmer's fields and fending off cattle, including two large bulls. The channel below Blythburgh across the estuary is currently marked with withies but still is shallow at low water which meant judging tide and wind quite carefully.

With over £1,650 raised so far the group has purchased a weed cutter, a rake and some hi-vis jackets and went on to hold its first clearance session when a mass of pond weed was removed. Meanwhile the long term plan is to commission a professional feasibility study for the dredging and restoration of the New Reach as a navigable waterway.

**WATER VOLES:** It appears water voles are continuing to thrive in the Fens although their numbers are declining in other parts of the country. Evidence for this follows work by Cliff Carson the environmental officer for the Middle Level Commissioners who has found that the animals thrive in ditches that are maintained. This provides a stable habitat where the vegetation is more diverse and the water is deeper. A study was led by the Wildlife Trust and covered 307 ditch sections in Curf Fen and Ranson Moor between March and Chatteris. Over 80 kilometres of ditches on the Cambridgeshire Fens were covered on foot or by boat leading to the belief that the region is a nationally important stronghold for the voles.

**KINGS LYNN:** Associated British Ports is spending millions of pounds to transform the port of Kings Lynn. Included is a new £1.1 million crane which will enable the port to deal with vessels up to 20 feet wide and to handle a wider range of commodities. For the last three years the port has handled about 500,000 tonnes per annum but this is now showing an increase. The plans include building a new 15,000 ton shed at a cost of nearly £3,000,000 to replace an existing one, to recruit more staff, 35 full time already being employed there, whilst three new fork lift trucks are in operation to handle the loading of bricks, timber, steel and general cargo. The port's main import is timber from Scandinavia and the Baltic, while it exports wheat, barley and oilseed.

On a different theme, over the 9<sup>th</sup> & 10<sup>th</sup> July weekend the international water ski races were held at King's Lynn Harbour, high water being at 10.21 hours on the Saturday and 11.00 hours on the Sunday. The full course extended from the Cut pylons to south of the Boal Quay with turn buoys placed in the river for the duration of the races, each of which lasted some 35 minutes and safety boats were in position north and south of the course.

**NARBOROUGH BONE MILL:** A visitor centre has been opened at this 19<sup>th</sup> century water mill to make it more accessible to the public and to display finds made at the site. The mill was used to produce fertiliser by crushing thousands of bones, including it is said some human ones, which were brought by cart or by barge to this peaceful spot on the river Nar. For instance, whale bones were brought up the Nar by barge from a blubber-processing factory at Lynn. Some were taken firstly to Congham water mill on the river Cong to be processed before being taken to Narborough for rendering. Both mills were in remote locations possibly due to the powerful smell the processes created.

In 1884 a sluice was built on the river and this effectively ended transportation and led to the closure of the mill. Subsequently it was demolished but the 16-foot in diameter waterwheel remained in position together with some crumbling brickwork. Last year a restoration project was launched and was awarded a £92,200 grant from the Heritage Lottery Fund. A visitor centre has now been erected on site housed in a restored railway wagon

**HUNDRED FOOT RIVER:** At the end of July we received formal notice from the Environment Agency that de-silting works would be taking place upstream of Sutton between 22 August and 30 September. The works were to involve a long reach hydraulic machine that would be working from Cradge bank. We have also been advised that between Pymoor and the Welney Wildfowl and Wetland Trust site an amount of debris and some trees have encroached on the navigation channel and this may cause difficulties for larger craft navigating this stretch of the river and particularly at certain levels of the tide.

**CHELMER & BLACKWATER:** Essex Waterways will have a new look sea lock this winter at Heybridge with three sets of working gates to increase capacity which is dependent on the tide. A new steel sliding caisson gate has been built and tested in Cardiff before being dismantled and delivered to Essex ready for installation. And at the same time new mitred wooden top gates are to be installed, the latter being built by Hargreaves in Halifax. The work is being funded by Essex & Suffolk Water as part of an agreement it has for extracting water from the navigation. And as a part of this the Environment Agency has de-silted the seaward side of the bottom gates.

Meanwhile the Chelmsford Rivers And Canal Link group (CRACL) remains active despite some unexpected opposition that was forthcoming at a recent public meeting. Its main aim is to create a short navigable link between the existing navigation and the Chelmer and Can rivers in the centre of the city.

**RIVER WELLAND:** It is good to be able to report that Fulney Lock on the Welland is once again open to traffic, after being neglected for several years. On 20 May two boats – *Rhoda Ellen* owned by David Pullen and *Bouncin Brass* skippered by David Collin – left Boston Grand Sluice at 4.25 pm and cruised down the river Witham and out into the Wash to Tabs Head. This is a fixed beacon that marks the separation of the Witham and the Welland and involves boats making almost a 180 degree turn. Having made that turn the boats headed up the Welland channel to reach the Fosdyke Bridge Yacht Haven at 7.35pm.

On the following day they left the haven at 6.20am reaching Fulney lock on the rising tide at 7.40am where the Environment Agency had staff in attendance enabling both boats to cruise straight into the lock.

It was then a clear run into Spalding to be met by our member Richard Fairman and by Gill Houston on the narrow boat *Alcedo*. *Bouncin Brass* with a higher superstructure only just made it under West Elloe Footbridge (2.24 metres headroom) but on the following day failed at Balmoral Avenue Footbridge (1.85m) and Little London Bridge (2.01m). However, *Rhoda Ellen*, accompanied by *Alcedo*, reached the head of the navigation at Peakirk. The boats left Spalding on 23 May passing through Fulney Lock at 8pm to moor at Fosdyke at 9.20pm and arriving back at Boston Grand Sluice at 10.40am on 24 May.

This was the third attempt to cruise the Welland. A campaign trip in May 2015 involving eight boats had to be cancelled as the lock was inoperable due to the build-up of silt in the lock gate recesses and a similar cruise in 2012 failed for the same reason. It is thought the lock had effectively been closed for several years before that, the last recorded passage being in 2001 being by the Tuesday Night Club group.

What is important now is to ensure that regular use is made of the lock which was built by contractors W. A. Dawson Ltd of Luton in 1953 as part of the Coronation Channel scheme. These contractors went to build the new bridge over the Great Ouse that leads into the Market Place in St. Neots and which was opened in January 1965.

**BEDFORD & MILTON KEYNES WATERWAY PARK:** An impressive Vision Document has been prepared for this project to give decision makers the information they need to understand what is intended and why it is a great idea. The document begins with a vision statement and goes on to show the positive economic impact the waterway will have – it is estimated it will attract 85,000 day visitors a year and increased visitor expenditure of £4 million per annum.

A number of new homes are currently planned along the route and the intention is for the waterway to link up with all the green spaces. A funding bid is to be submitted to SEMLEP (South East Midlands Local Enterprise Partnership) which is the Government's preferred funding route.

**CLEY HARBOUR:** At the end of July and as a result of two and a half years of hard work 16 vessels were able to moor at the newly restored Cley Harbour next to Cley Windmill as part of a celebration open afternoon. Working parties comprising up to 30 people and taking place in all kinds of weather have succeeded in getting 100 metres of the river Glaven dredged, its banks cleared of vegetation and quay heading installed. With the voluntary labour the costs were brought down to some £18,000 and future plans are to open up another 100 metres.

## **BROADS NOTES AND NEWS**

**BROADS FORUM:** For several years the Association has been represented on the Broads Forum by our member Brian Holt, but Brian had to resign this role several months ago. He represented not only ourselves but the Inland Waterways Association, the Yare Users Association and the Oulton Broads Users Enterprise. To replace him we have agreed that Peter Walls be appointed, he being an IWA member who lives in Norfolk.

**AITKEN CLARK:** On Thursday 23 June the Broads Authority's newest boat was launched and was named *ML Aitken Clark* in honour of its first chief executive to celebrate his contribution to the work of the Authority in looking after the Broads. Under his leadership the quality of the water was improved, habitats were restored and wild life returned. His work was acknowledged with an OBE in 1998 and a European award for conservation in 1999. He was also instrumental in driving through the 1988 legislation that gave the Broads the equivalent status of a national park and in 2002 he helped establish the Wherry Yacht Charter Charitable Trust and remained its chairman until his death on 9 April 2010.

**HICKLING BROAD:** Major dredging is underway at Hickling Broad as part of a £1.4million plan to boost water quality and biodiversity. The sediment was removed from the channel running through the broad as part of the Hickling Broad Enhancement Project which began last November. The work first focused on the northern end of the 1.2-mile channel where navigation was most at risk. Some 3,500 cubic metres was dredged over a ten-week period and was pumped back into the man-made lagoon at Duck Island. The work has included the restoration of banks near Hill Common and future plans should include reed bed enhancements at Churchill's Bay.

**WESTON CANOES:** A Norfolk canoe builder based at Weston Longville is planning to double production after securing deals to sell canoes across the country. Nick Hanington sells handmade wooden canoes locally from his workshop but recent displays of his vessels in outlets such as at Poole and Portsmouth have increased sales significantly.

Mr Hanington, a keen canoer, has launched "Pub and Paddle" in Norwich based at the Red Lion, Bishopgate where customers can hire a canoe and make their way down river stopping at a series of waterside pubs that have teamed up in the venture including The Rushcutters in Thorpe St. Andrew, The Water's Edge in Bramerton and the Ferry House and Coldham Hall in Surlingham.

The idea was prompted by Mr. Hanington seeing so many people sitting by the river at Easter. Effectively his idea could be judged as a pub crawl of Norwich by canoe. This, however, generated some concern from people worried about the risks of combining canoeing with regular pub pit-stops. In practice the idea has attracted many of the hen and stag parties but it seems they have chosen the trail as a daytime activity ahead of a night out. And a significant number have looked at the non-drinking option anyway. A policeman from the Broads Beat team commented that it's not a good



combination to have alcohol and be on the water but it's always good to promote the city and the waterways and it's nice to see that happening.

**RIVER WENSUM:** The river featured badly in a Riverfly Census conducted by the fisheries charity Salmon and Trout Conservation UK at 120 sites involving seven rain fed rivers and five chalk streams. The Wensum was given the lowest average rating with a dramatic negative effect on fly life attributed to fertiliser run off from farms and sediment pollution. Earlier this year the Upper Wensum Cluster Farm Group was formed in a bid to reduce the impact of agriculture on river habitats; 15 farmers and landowners hope to coordinate conservation efforts across 5,000 hectares of land.

**RIVER BRIDGES:** The Eastern Daily Press has a fine record of recording happenings on the waterways of East Anglia and over the years it has built up an extensive collection of photographs. In its issue of Saturday 4 June readers were put to the test to identify several of the region's bridges. Knowledgeable members would have been able to identify Breydon lifting bridge across the tideway at Great Yarmouth, Potter Heigham bridge, Reedham's railway swing bridge, Somerleyton's railway swing bridge, the Trowse railway swing bridge, Thetford High Street bridge, Wroxham bridge and Bishop bridge and Whitefriars bridge in Norwich.

A week earlier several bridges throughout Norfolk were depicted including three of the Little Ouse near Thetford – one taken in 1965 showing a new vista of the Old Maltings near the Town bridge following the demolition of former garage premises, one taken in August 1975 showing a large number of sunbathers and swimmers enjoying the water at Thetford, and the third taken in 1956 showing the choked river with rampant weed growth at Two Mile Bottom.

**RIVER WAVENEY:** On Sunday 31 July the BBC's Countryside programme featured rush cutting on the Waveney at Homersfield. In particular Anna Toulson and her team at Waveney Rush Company were shown harvesting the crop and then weaving it into impressive carpets and mats.

**JENNER'S BASIN, THORPE ST. ANDREW:** On Friday 17 June judgement was given that people living on an island in the Broads could face eviction if their landowner does not submit a planning application within three months. This relates to a long running legal dispute between Roger Wood and the Broads Authority and covers 25 boats moored in Jenner's Basin.

**HARRIER:** One of the oldest boats on the Broads is back in the water after a two-year absence during which she underwent major repair work. This late Victorian sailing cruiser was built in 1900 and had remained largely unchanged ever since. But following the finding of several rotten planks in her hull she was taken to Ludham Bridge boatyard where major restoration work was carried out. *Harrier* was originally built at the former Norfolk Broads Yachting Company at Potter Heigham and worked in the yard's hire fleet until being sold during the First World War. The 23-foot boat is unusual in that she has a slightly curved bow, known in the trade as a "roman nose".

**SUSTAINABLE TOURISM:** A report that has been adopted by the Broads Authority and Broads Tourism earlier this year envisages how tourism will develop up to 2020 and looks at trends over the last ten years. Whilst the traditional Broads boating

holiday continues to thrive – 7.4 million people explored the area in 2015 with the majority of visitors aged 45 and above – a new strategy has listed a tech-savvy approach as a key to enticing a younger demographic.

Six priorities for 2016 are (1) To develop high quality up to date website, (2) Develop presence on social media, (3) Develop and package wildlife experiences, (4) Extend and diversify walking and cycling offer, (5) Deliver effective visitor information and increase knowledge of the Broads and activities to businesses who can pass it on to their guests (6) Support conservation of natural and cultural heritage through tourism including more support for Love the Broads scheme.

Some changes are already apparent – in 2015 there was a small drop in the numbers hiring traditional cabin boats but there was a marked increase in large, luxurious cruisers. Day hire motor boats also declined slightly but rowing boats and canoes are on the up. Hire sailing crafts are declining but they are hugely outweighed by private craft. Water activities such as sailing, canoeing and paddle boarding are an increasingly important part of trips and over 40% of hirers now take part in some form of angling. And it is hoped that expanding walking and cycling routes plus a rise in water activities including canoeing will cater for a market keen to getting out and about.

**NORTH WALSHAM & DILHAM CANAL TRUST:** The Trust held its Annual General Meeting on 25 August in Honing Village Hall and followed this up by partaking in the Nationwide Heritage Open Days on 10<sup>th</sup> & 11<sup>th</sup> September which took place next to Ebridge Mill Pond. Great stress was laid on the fact that it is now possible to walk from Ebridge all the way through to Swafield along one or other of the canal banks. And through the efforts of the working parties considerable improvements have been made to the path with extensive lengths being cleared and then sown with grass seed.

Meanwhile the Trust continues to gain excellent publicity with a leading double page article in the *Eastern Daily Press* on 16 June. And it would appear that the prospect of a settlement with the Environment Agency over the de-silting works that were carried out on the Ebridge pound is looking more hopeful. There is absolutely no doubt that the environment has improved dramatically as a result of this work and the canal is now alive with mammals, birds, fish and insect life.

And the great news is that the Trust was one of only two finalists in the prestigious Canal and River Trust's Living Waterways Awards with its plan to restore a unique part of Norfolk's heritage. The winner was the plan to restore the Grade II\* listed iron trough Nantwich Aqueduct designed by Thomas Telford on the Shropshire Union Canal which has benefitted from £250,000 to support the project.

Nantwich was an impressive and deserving winner but the Trust is rightly extremely proud that it was the only other restoration project nationwide to have been selected as finalists, competing with such a huge and heavily funded project. The vast majority of nominations were major projects involving considerable financial sponsorship and hundreds of volunteers whereas in Norfolk so much has been achieved with so few people over 16 years. Perhaps in another 16 years from now when the whole canal has been restored and the whole length is available for wildlife and recreation the Trust may stand a chance of winning in one of the categories.

## A VERY SHORT ARM

On the Santon Downham village website there is a reference to a former short arm of a waterway which tunnels under the railway between Brandon and Thetford and allowed the passage of river boats that carried flint and chalk away from a quarry. This is St Helens Well that lies just north of the Little Ouse river about two miles upstream of Santon Downham. It was much altered firstly by the execution of a chalk pit and then by the building of the railway from Thetford to Brandon in the 1840s. The site can be approached from an information board on the track which runs westward from near the Two Mile Bottom picnic site, roughly parallel with the river. A steep path leads down the west side of the old pit and once down to the water the bridge under the railway is clearly navigation size, not culvert size, and the water is remarkably clear. It almost certainly predates the railway and might well be a candidate for the shortest chalk stream in Norfolk.

You can stand right by where the water emerges from the ground in the centre of the old pit. Around you is open scrub growing up from the uneven floor of the former chalk and flint quarry. Beyond, the steep but not vertical sides of the pit lead up to the rim, perhaps 60 feet above. The water course is straight and passes under the railway about 100 yards below the spring. You can follow it with dry feet because there is a narrow walkway through the bridge, cantilevered out over the water. Presumably this was set there for the benefit of railway maintenance works although there is no attempt to discourage any one else from using it providing they are prepared to bend double. Downstream it is another 100 yards to where boats must have turned right and followed a backwater a short distance to join the river navigation about a mile above Sandon staunch.

The information panel says that the makers of the quarry were after not only chalk but floorstone flint needed for making gun's flints – in great demand at the time of the Napoleonic wars which coincided with the high noon of inland navigation. Here, where the outside of a bend in the Little Ouse cuts into higher land, the floorstone bed is only about three metres below the surface – compared to nearby but much older flint mines at Grimes Graves. Brandon, once the centre of the world gun flint industry is just four miles downstream.

At St Helens Well the quarrying has obliterated any signs of the medieval setting of the well, but excavation in 1961/2 showed that below the surface the foundations remain of the remote church of St. Helens that stood guardian on the bluff above the well. In the days when the church stood alone on the heaths above the river valley it must have been a wild and evocative spot but a welcome one for those seeking clean water. Now the surrounding land is mainly Forestry Commission plantations though the valley bottom is not planted up. The National Grid Reference of the bridge is TL 840873. The information is on the east-west track that goes near the Two Mile Bottom picnic site on the A.134 to the St Helens picnic site beyond. The access road to the St. Helens site starts at TL 819880 between the river and the railway; it is a bit of a scramble to get down to the water side.

*(Information from an account by Fergus Muir that was featured in the Summer 2016 issue of the newsletter of the River Gipping Trust.)*

## FLOATING PENNYWORT

This plant – scientific name *Hydrocotyle ranunculoides* - is native to North America and is increasingly found floating on the surface of still or slowly moving freshwater. At present it is mostly in south-east England, occasionally in north-west England and Wales but it is spreading rapidly.

Floating Pennywort became established here from 1990 onwards due to discarded plants from garden ponds being dumped into rivers. As it can grow up to 20 centimetres a day it can quickly dominate a waterbody forming thick mats, impeding water flow and amenity use. It can also outgrow native species by blocking out light, causing deoxygenation, obstructing air breathing insects from reaching the water surface and reducing water temperatures.

Now listed under the Wildlife and Countryside Act 1981 it is an offence to plant or cause this species to grow in the wild.

As such it poses major difficulties to the Environment Agency which has various methods to control the plant, depending on the amount and the location. Three control measures are used either alone or in combination with each other – mechanical cutting, hand cutting and herbicide. When using mechanical or hand control it is very important that no small fragments are released into the water as these will re-establish the plant further downstream.

On the wider sections of rivers the best method is removal by weed harvester with herbicide being applied to the cut material on the bank and to any small plants remaining in the margins. For small patches herbicide can be applied directly to the plant without the need for removal first. And on shallow channels it is possible to hand pull the pennywort to remove it.

During the winter there is a natural die-back of the weed but a mild winter may not have killed it off and this will give it a head start. Last year over a four-week period the Agency removed over 1,000 tonnes from waterways in Cambridgeshire and Bedfordshire.

The Agency also has a partnership arrangement with the Conservators of the River Cam to treat the Cam and the Ely Ouse and over the winter they attempted treat the tributaries of the Cam to eradicate the weed in the headwaters. And last year pennywort was identified on the Bedford Ouse and action is being taken to deal with this situation.

*The Environment Agency has a regular information spot in GOBA News, the journal of the Great Ouse Boating Association, from which this article has been based. It should be stressed here that permission for herbicide use in or near water has to be obtained from the Environment Agency - Ed.*

## THE BOTTERILL PLAN

In its edition of 16 July the Eastern Daily Press reveals the remarkable story of a local man who, years ago, wanted to build a ship canal from Great Yarmouth eventually through to the Bristol Channel with an important branch to Birmingham.

In 1909 W. J. Botterill, a Norwich engineer, produced plans to create a naval base off the river Yare at Rockland Broad. This was at a time when Kaiser Wilhelm II was building up Germany's armed forces and this was causing some concern in this country. Botterill saw the broad as becoming a great inland lake capable of providing a safe anchorage for 300 cruisers, torpedo boats and submarines. But the plan did not stop there – Botterill envisaged a major extension of the ship canal westwards and including a major branch to a new inland port at Birmingham. This would enable ocean liners to sail from the West Midlands into the North Sea via Norwich.

Botterill's proposal was that vessels would travel from the coast at Great Yarmouth seven miles up the river Yare and Breydon Water to the Berney Arms. From there a 15-mile canal – 120-feet wide and 21-feet deep – would be cut through the marshes to Norwich where a commercial dock, connected to the city's train stations by a new railway tunnel, would be developed. On the way, Rockland Broad would be enlarged from 60 to 400 acres to accommodate the great naval base. The route then went cross country and new docks would have been created at Cambridge, Bedford, Oxford and Birmingham.

It is believed Botterill's plans were first published in 1909 in an article in a journal called *Black and White* complete with explanatory diagrams. This was reprinted in a booklet by the *Norwich Mercury* under the title "Proposed Norwich to Yarmouth Ship Canal" with the subheading "Ship Canal Across England". Botterill was described as a member of the Society of Engineers and Official Arbitrator London Chamber of Arbitration. Great play was made of the fact that the docks would all be on the direct line of the canal and require no lock gates and that would be of great convenience to every type of vessel.

Perhaps not surprisingly the proposal met with little support. Dr Harry Bennett, an associate professor at Plymouth University, thought Botterill's plans to extend the canal across the country was unrealistic. Dr Steven Gray, a lecturer in the history of the Royal Navy at the University of Portsmouth, noted that canals are hugely expensive and take years to build and as little was known about Botterill he would have little influence on policy and would have struggled to get a hearing.



## A VISIT TO STRATFORD LOCK

Your Editor was delighted to be invited by John Morris, Chairman of the River Stour Trust's Council, to visit Stratford Lock and witness the progress that has already been made with the restoration work and to learn of the plans for the future. And so, on 7 September and accompanied by his wife Anita, he made the short trip from Colchester to the Essex & Suffolk Waterworks pumping station on the original A.12 road through Stratford village. Here he met by John and by Gordon Denney who has been very active in carrying out the restoration work.

It should be stressed here that the Waterworks Company has been extremely helpful in allowing the RST to base its operations behind the pumping station. This has enabled the Trust to construct a large square raft, made up of 91 individual segments of Versadock, and which is now capable of carrying loads of up to four tons across the narrow channel to the lock island. Whereas originally the clearance work involved large amounts of manual labour, a digger and a dumper truck can now be floated across and the work has been dramatically speeded up.

Despite it having been built in the 1930s the concrete walls of the lock are in relatively good condition. The same cannot be said for the lock gates, which are in a ruinous state, or for the silt that has collected in the lock chamber. Much of the latter has been removed and is going to be spread on the island downstream from the lock in agreement with the Environment Agency.

Whereas previously the head of the lock was blocked off from the main river the exciting news is that the blockage has been removed and there is now a navigable channel right to the head of the lock, where a watertight dam has been erected so that the lock site can be drained down. This is an important step forward.

Provisional plans have also been made with Hargreaves, lock gate manufacturers of Halifax, about the four new lock gates – two at each end – that are going to be needed. For the moment the top gates, and the tree and other growth that encompasses them, have been left in situ at Hargreaves request and they will be visiting the site in due course to oversee their removal and to salvage any reusable parts. Both bottom gates are open and have been cleared of rubbish pending their removal.

Moving south down the lock island the Trust has put in nearly 180 metres of gabions to shore up the land except in one short location where a reed bed has been established. And at the end the EA has renewed the landing stages at the official portage place and erected several directional notices.

Previously the only access to the site from the south involved a somewhat perilous trip across the top of a sluice gate close to a public footpath. Money has recently been donated that will enable a proper bridge to be erected here giving a much improved route to the lock.

Your editor left the site greatly encouraged. Currently the hope is to formally reopen the lock in 2018 as part of the RST's 60 years celebrations. But if the plans work out boats could be able to use the lock before that important date.

## STRATFORD LOCK - 7 SEPTEMBER 2016



Top: The recently created channel from the head of the lock back into the main course of the river. Bottom Left: A general view of the bottom end of the lock showing one of the gates. Below the lock is one of the temporary dams that have been put in by the RST to enable the lock to be drained so that it can be cleared out of years of silt – much has already been done but more needs doing. Bottom Right: The top gates have been completely covered in tree and other growth. The curved barrier is one of the original ways of sealing off the lock – today it serves no purpose as there is a modern temporary barrier immediately upstream but out of sight.



## NORTH WALSHAM & DILHAM CANAL



*The work of the Old Canal Company and the volunteer workers carries on. This picture was taken on 14 August at Pigneys Wood and shows the digger which has just installed a large pipe on the back soke on the right as a prelude to establishing a pedestrian crossing.*



*A line up of plant for the day at Bacton Wood – three dumpers, one digger and one lorry. The plant was for use on the North Walsham bank opposite Pigneys Wood where the lorry was parked by the new sluice with the tools and grass seed for completion of the seeding on the north west bank.*