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**ANNUAL GENERAL MEETING**

This year's AGM took place on Sunday 19 April based on The Hume Arms public house in the High Street at South Kyme beside the river Slea and was attended by 15 members and 8 friends. In the morning the more energetic and fit members had a conducted tour around the navigation in Sleaford including Navigation House, the launching site, the lifting bridge, Cogglesford Lock and Cogglesford Mill before moving on to the pub where they enjoyed an excellent lunch served up by the landlord, Virendra Shukla and his team.



The formalities of the meeting then took place before the room was re-arranged to allow Steve Hayes, the Secretary of the Slea Navigation Trust, to give a presentation about the river and the work of the trust. We are grateful to Steve, and to his wife Chris who is Chairman of the trust, for all their help in making the arrangements and to David Tomlinson for master-minding the programme for the day.

## HERE AND THERE

**DOCTOR TOM MOORE:** Most of our readers will associate the name of our member Tom Moore with the sterling work he has carried out with his dredger at Honing Staithe Cut and Briggate Mill Pond. But this work is only part of the story for since 2003 he has flown more than 500 missions as a Flying Doctor for the East Anglian Air Ambulance. In February the Prime Minister, no less, announced that Tom has been awarded the Point of Light for this service. This new award has been developed in partnership with the Points of Life programme in America which was established by President George W. Bush and has since recognised more than 5,000 people. Tom's voluntary work began in 1983 in Hampshire and carried on following his move to Dilham in 2002. He donated at least one day a fortnight to the air ambulance service and has saved the lives and eased the pain of literally hundreds of people.

**IWA WATERWAYS:** The Summer 2015 issue of this journal included a fighting letter from our archivist Ivan Cane highlighting some of the problems affecting waterways in East Anglia and which the Environment Agency seems unable to deal with. The failure to remove weed from the Old West River, the closure of Old Bedford River due to silting at its northern end and the removal of the bottom gates at Swaffham Bulbeck lock being just some of the many problems confronting those wishing to navigate in the area.

**KING'S LYNN FERRY:** The centuries old ferry service that connects Ferry Lane, King's Lynn, with West Lynn. has been operated across the Great Ouse by Steve and Gail Kingston since 2000. Recently operations have been made very difficult for them by the constant build up of silt in the river. This restricts the ability for the ferry to reach the landing stages at times and necessitates passengers having to walk on causeways of duck boards to try and avoid the mud. To overcome the problem an amphibious boat has been acquired that is fitted with tracks to enable it to drive over the mud. The business has three ferries in all that operate six days a week continuously from 6.45am to 9am and then every 20 minutes before a second continuous session from 5pm to 6.30pm. Each year nearly 90,000 passengers use the service for which West Norfolk Council provides an annual subsidy of £20,000.

**ELY MOORINGS:** On the basis that to do nothing about the moorings problem. that was raised in our last issue. was not an option. East Cambridgeshire District Council canvassed the views of as many interested parties as possible. The consultation period ending on 19 January by which time no less than 636 completed questionnaires had been returned, 24 from local residents, businesses and other stakeholders and 612 from boaters. The vast majority, 83.5%, favoured the moorings being limited to a 48-hour stay and with no return within another 48 hours. A small number suggested either a 24-hour or a 72-hour stay. The main reasons for using the moorings were to use the city centre shops and supermarkets and to use the waste bins and pump out facilities. The need for more available moorings was cited as was the need for more electricity and water points. By far the most popular option was for the moorings to be free for the 48-hour period but then to be followed by a charge and this is being adopted with part-time wardens being appointed to oversee matters.

**NARBOROUGH BONE MILL:** The Heritage Lottery Fund has awarded a £92,200 grant towards the restoration of the historic bone mill that stands beside the river Nar about a mile downstream from Narborough. Originally used to render down bones from local slaughterhouses into agricultural fertiliser it ceased working at the end of the 19<sup>th</sup> century but the 16-foot waterwheel and the foundations of the main mill building remain together with three underground sluices and four millstones. A team of volunteers will restore the mill and its workings and it will be opened to the public. The mill is not near a road but its raw materials and finished products used to be carried by horse drawn barges. It was the closure of the navigation in 1884 that led to the closure of the mill.

**DENVER SLUICE COMPLEX:** Plans to regenerate and improve this area are being prepared by consultants working for the Environment Agency which owns the site and is involved in the Ouse Washes Partnership, a three-year project largely funded by the Heritage Lottery Fund. They include the provision for an open-air ice-skating pond, a visitor's centre, improved moorings and other facilities for boaters, water sports facilities, better trails for cyclists and walkers and a water taxi service between Downham Market and Denver.

**FENS WATERWAYS LINK:** It had seemed that there was a real chance that this project, which has been stalled for some time due to lack of funding, might be able to progress in the shadow of the Boston Barrier project. There are economic benefits as a result of reducing the risk of tidal flooding in the town and these can be significantly increased by investing in the waterways to attract more tourists and businesses. Because the barrier will control the water level in the haven this will lead to the provision of new and improved moorings whilst the link will also benefit as boats will be able to enter and exit far more easily than at present. In turn this should make the link more attractive as will any work to extend the present official head of navigation at Donnington High Bridge southwards towards the river Glen. The government is committed to funding the Boston Barrier and work will start in 2017 and be completed by December 2019. The plan had been for Lincolnshire County Council to invest £11 million in waterways projects in and around Boston to help regenerate the town but this is in doubt due to major disagreements centred on the provision and the size of an access lock for the new barrier.

**RIVER NENE:** Two developments on the upper reaches of the river are currently being considered. The first is a proposed mooring basin at Thrapston close to the historic bridge in the town and which could involve leisure facilities such as an attractive building to house a cafe and other services, mooring pontoons, a canoe launch point and pump out and servicing facilities. The second is a proposed new marina at Irthlingborough alongside a straight stretch of the river immediately upstream of the lock. Here there are three versions of the proposed facilities to cater for some 120 craft with varying numbers of cruisers and narrow boats.

**MIDDLE LEVEL:** New wooden doors made of the hard wood ekki have been installed at the west end of Salters Lode Lock. Elsewhere work is in hand building a new footbridge across the High Lode.

**RIVER STOUR:** On Saturday 2 May Griff Rhys Jones, Vice President of the River Stour Trust, formally opened the new gates at Flatford Lock. In fact the installation of these gates has been completed some months before and it had been hoped the opening ceremony could take place somewhat earlier but high water conditions made this impossible. The gates are made of ekki, an African hardwood, and were put together at a workshop in Acton, near Sudbury. Work to reopen Dedham Lock should now follow after which the Trust hopes to turn its attention to restoring Stratford St. Mary lock.

**PIPPS FORD LOCK:** The River Gipping Trust's work is concentrating on preparing the way for opening up the by-wash to the lock and keeping the downstream towpath clear of overhanging shrub growth. The discovery of a random lump of stone turned out to be the remains of the 18<sup>th</sup> century by-wash weir and was much more extensive in situ than originally realised. So much so it is hoped to include its preservation in the latest proposals for the by-wash reinstatement. Indeed it has become an area of great interest as it has a number of features the Environment Agency is anxious to conserve. They include areas of clean gravel in the stream bed and tree cover overhanging the river itself. There are also traces of otter using the stream regularly and evidence of water voles returning.

**RIVER SLEA:** It had been hoped the new winding hole in South Kyme would be open in time for the annual May boat gathering but sadly this was not to be. Funding was largely in place, preliminary discussions with the Environment Agency over land drainage consent had been completed and a contractor had been identified. At the last minute, however, it was decided planning permission would be needed despite the fact no structure was being erected. At the same time an Ecological Survey would have to be completed before land drainage consent could be given. Sadly the work will be delayed and is now scheduled for the autumn. Meanwhile volunteers have cleared the site of the winding hole in readiness for the contractor.

**FULNEY LOCK, SPALDING:** Disturbing news reaches us that this lock is currently impassable due to lack of maintenance. A group of boats navigating up the tideway recently with a view to navigating the Welland were forced to abandon their plans. This is a serious matter that is being taken up at highest levels.

**LICENSED BOATS:** The Environment Agency reports that 6,917 boats were registered last year bringing in revenue of £2.085 million. Of this number 4,554 were power boats, which is 274 more than in the previous year.

**CLEY HARBOUR:** Once a busy port on the north Norfolk coast, today Cley harbour is silted up and unnavigable to all but the smallest craft. Plans are now being developed to dredge the river Glaven that flows through Cley and runs out to the sea via Blakeney Point so that sailing boats will be able to use the port once again. Planning permission to widen a stretch of the river channel from 7-feet to 26-feet were approved by North Norfolk District Council in 2014 and funding is now being sought to carry out the work.

## THE UPPER CANAL A special feature by Ivan Cane, EAWA Archivist



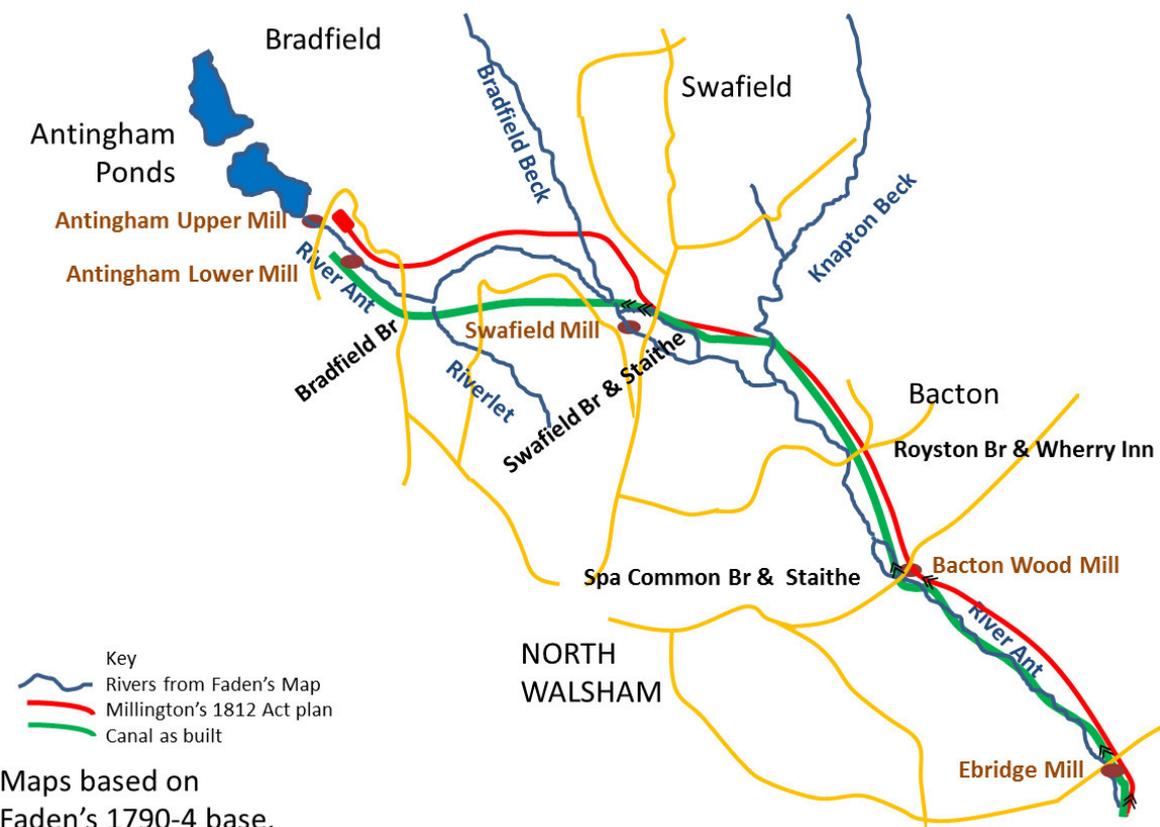
*Connell Bridge, unloading Coal  
Bradfield  
Byles Whitaker*

### **Wherry unloading coal at Bradfield Bridge, possibly for brickyard c1870 – Clifford Cushion**

Faden's maps of 1790-94 give us a snapshot of the area of the Upper North Walsham & Dilham Canal from Antingham to Ebridge, prior to the building of the Canal (shown in blue on map overleaf). There were four mills at the time. A small one, Antingham (Upper) Mill, stood at the base of the two large Antingham Ponds, beneath the "shadow" of Bradfield Hill, which no doubt helped with the damming of the minute River Ant. The infrequent waters released at Antingham would not have been sufficient to power Swafield (recorded as early as 1537). So, this mill additionally utilised the waters from Bradfield Beck, which probably greater than those of the Ant as it has a larger catchment area, and the rivulet from North Walsham. At Swafield, the waters are shown as parting and then joining together below the village. The northern-most branches may have been the former course of the Beck, as there is evidence in the fields that this had been diverted, as a leat, to feed the Swafield millpond. The northern branch could arguably have been the overflow for the millpond. A similar situation is seen at Bacton Wood Mill (a Domesday site but rebuilt in 1747). By now, the waters have been further supplemented by the Knapton Beck. At Bacton Wood, the river fed the millpond, and an eastern stream may again have acted as the bypass stream. Faden's Eastgate

Mill (also mentioned in 1537) stood across the river east of the town on the Happisburgh Road (now Ebridge Mill).

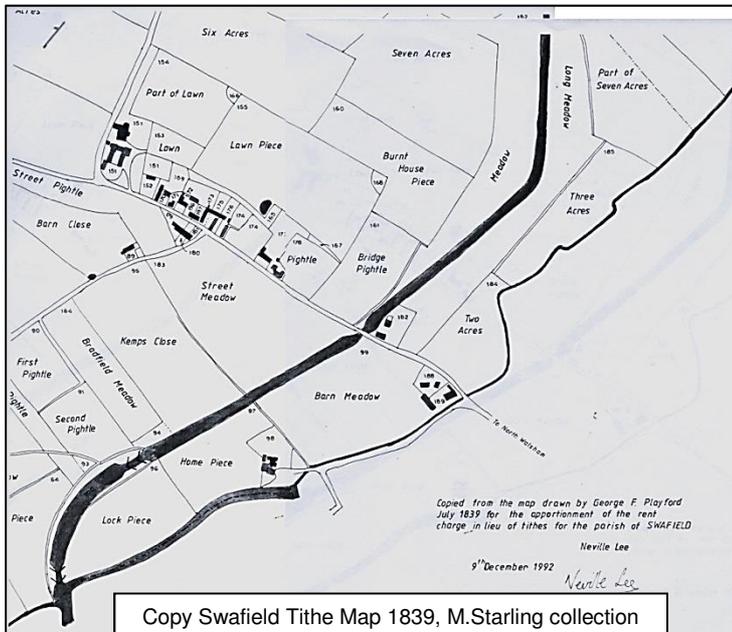
In 1797, an Act had been passed to create a toll road between Norwich and North Walsham, which, although it improved the route, added significantly to the cost of transportation to the town. This, and the fact that much coal was brought overland from the North Norfolk beaches, led to a call for the construction of a canal. During 1811, three plans were drawn up, two by John Millington and one by William Youard. Following this, a meeting was held at the King's Arms, where it was resolved by 55 local proprietors that an application for a Bill to construct a canal should be made. They chose Millington's idea for a canal (shown in red on map), mainly following the valley side to the north of the River Ant. After some 12 years of "contemplation", construction was started on 5<sup>th</sup> April 1825 by a labour force of 100 Bedfordshire "bankers". Interestingly, it was Mr Youard who cut the first spade of earth at Austin (Royston) Bridge. One wonders to what extent he was instrumental in the changing of the route, which now connected with the millponds at the five mills (marked green on map). Thomas Hughes was the contractor, an experienced man who had been involved in the building of Scottish canals, as well as harbour and port work.



*"The line of the canal was not coincidental with the original bed of the river and therefore, it is a true cut...Construction was not easy as the land through which it passes is very marshy. In fact, Hughes describes it as the worst description of peat,*

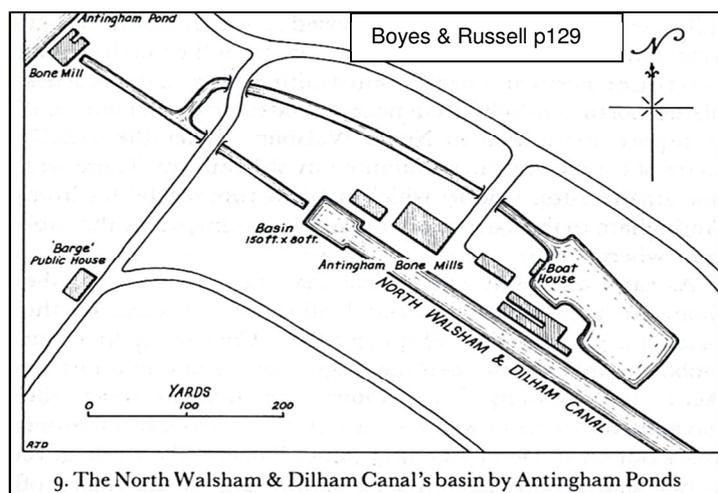
though by puddling he considered that he had been able to make a satisfactory bed and embankments.” (Boyes & Russell, 1977, pp128).

The building of the Canal, under its Act, involved the re-routing of any waters within 1000 yards of its proposed route so as to allow the canal a water supply. The Act also states that any junction with the River Ant has to be on the level. So, for the first mile from Antingham, the canal ran parallel to the River Ant, joining it at the level of Swafield Mill Pond. The widened Canal from the junction with the river up towards Bradfield Bridge would then have acted as an "improved" mill pond for the corn mill. The Canal then dropped by two locks, following the course of Bradfield Beck through the village, the company building a fine skew bridge to accommodate the road. The canal then bends east-north-east towards Pigney's, and south-east towards Austin Bridge. The Ant is still to the south and passed under the



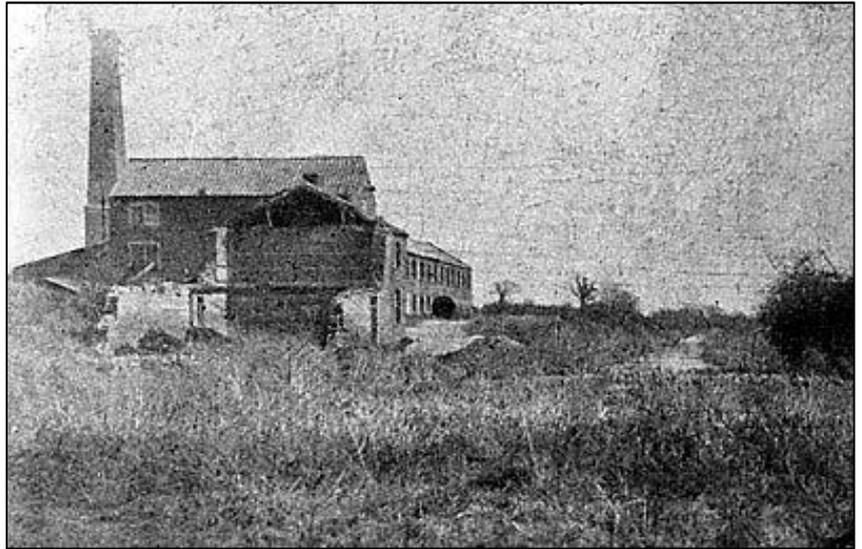
Bacton Road to the south of the Wherry Inn, running close alongside the Canal. Four hundred yards downstream, the Canal Co built a spillway to allow excess water from the canal to flow into the river. Further down, the river is joined by the waters from Knapton Beck, which had been diverted along the eastern soke dyke and passed under the Canal in a culvert. Around here would have been the original cut for Bacton Wood Mill, which the canal then utilised, again widening to increase the amount of water in the millpond. Meanwhile, the waters of the Ant continued through a lake, which had a boathouse, to rejoin the canal on the level above Spa Common Bridge. The constructed Canal bisects the old river course many times along the reach to Ebridge, with the river waters diverted into the side drains and culverted under the Canal from west to east. From here they travel along the east soke, into which the Ebridge spillway falls, passing through a culvert alongside the lock and emerging below the bridge to supplement the waters in the Briggate Reach.

At Antingham, the lie of the land would have entailed another two locks to reach the Upper Mill. Instead, a large basin, 150ft by 80ft, was constructed in a fairly deep cutting. Adjacent to the terminus a new two storey bone



g. The North Walsham & Dilham Canal's basin by Antingham Ponds

mill, 65 yards long, was constructed (below in 1920 – B. Abel). A channel connected the Upper and Lower mills, allowing goods to be moved in small shallow lighters between the two, and also for the transhipment of goods to and from the wherries.



Joseph Cubitt, the miller at Bacton Wood, undertook extensive rebuilding at his mill in anticipation of the opening of the Canal. Joseph was also father of the eminent civil engineer William Cubitt. It is

likely that the granary at Ebridge Mill (as it was called from 1835), with its lucam overhanging the canal for loading the wherries, was also built at the same time. Although the owners at Swafield are not reported to have changed the mill with the coming of the Canal, they did use it for marketing its sale in 1828 *“The New Canal from Yarmouth to Antingham runs directly alongside...” Norfolk Chronicle 30 August 1828.*

In Swafield, a complex of warehouse, stables and coal sheds were built on three sides of a square to serve the canal and community. At Royston Bridge, the Wherry Inn was built with a warehouse at the canal end, and other buildings towards the rear of the staithe. Spa Common became the main staithe for North Walsham, so there



were a fair number of canal-related buildings here on both sides, and by the millstream. Wherries also moored above the bridge.

There is evidence of three dry docks on the Upper Canal, one at the west end of Ebridge millpond (constructed by Edward press 1874?), one to the side of Bacton Wood Lock, where a few timbers remain, and one at Austin Bridge opposite the Inn (shown above). Here, traces of the brickwork and the emptying drain into the River Ant were found when the area was being cleared by work parties.

The *Norfolk News*, for Saturday 6<sup>th</sup> October 1860 reports that:

*“NORTH WALSHAM FATAL ACCIDENT - On Monday afternoon Mr. Benjamin Postle Woollsey of Swafield, miller and farmer, on crossing the upper lock of the canal at Swafield (which he had been accustomed very frequently to do) for the purpose of seeing after his workmen, that being much the nearer route, it is supposed that he was taken with giddiness in the head, from which he had lately suffered considerably and falling into the river was unfortunately drowned. Mr. Woollsey had been cautioned by his medical man against crossing this dangerous place, which few other persons but himself ventured to do. As his business required him to be frequently from home, no particular account was taken of his absence till a very late hour, when on search being made, his body was found in the river quite close to the lock.” (Norfolk Mills website)*

Trade was mainly of corn, flour, mill offals, fish gips, oil cakes, coal, feeding cake, manure and wood, with a 12- ton “cabbage wherry” running weekly from Antingham to the Yarmouth Market. Wine was also a cargo, but Arthur Walker recalls *“The last was discontinued after a wherryman had bought a gimlet, sampled the port and liked it so much, without realising its strength, that he was out of action for some days and found at Acle”* (A. Walker, 1956, unpublished). The coal trade was never as anticipated, since it was still cheaper to cart overland from the coast. The coming of the railways, particularly the Yarmouth and North Norfolk in 1881, provided tough competition for the Canal, especially with the Bone Mills changing allegiances. By 1893, the Canal above Swafield was abandoned, and later (1926) de-canalised as there was an offer to purchase for sporting purposes, although this did not materialise. When the work parties were excavating the upper lock last year, they found that the top gates had been replaced by two sets of shuttering, placed as a ‘V’ so that they were held by the cill. No doubt these were placed there to maintain the level of the millpond, after the original gates came to the end of their lives. The mill itself was demolished in 1947 and, at some time later, the watercourse was diverted around Swafield top lock, emptying the pond. Bradfield Beck was further diverted to enter the canal below the bottom lock, leaving the leat dry.

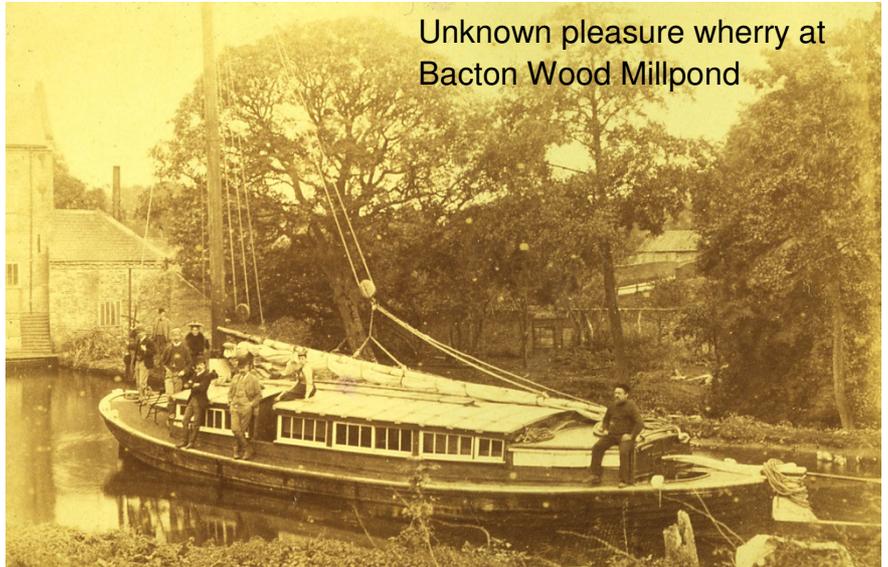
Edward Press, during his ownership, encouraged pleasure boat use of the Canal. He converted five wherries to carry passengers, and advertised these for hire *“...fitted with every Convenience*



Spa Common

for the Enjoyment of Parties wishing to Enjoy the Rivers and Broads of Norfolk.” (Advert, 1888). Adjoining landowners, having the right to navigate the canal without charge, also took advantage of the amenity, and the 1880 maps show boathouses at Spa Common (2) and Ebridge, with the 1907 Sales Particulars emphasising the “Exclusive Right of Pleasure Boat Traffic” supplemented by several images showing amenity use of the canal.

Following Edward Press’ death in 1906, the canal ownership passed through several hands until the establishment of the North Walsham Canal Company Ltd in 1921, which, in turn sold the section above Swafield Bridge to Michael Starling on 28<sup>th</sup> July 1982, and downstream to below Ebridge Lock to the Old Canal Company in 2010.



Unknown pleasure wherry at Bacton Wood Millpond

The rains of August 1912 led to the breaking of the canal bank above Bacton Wood, which was repaired, as was some damage from where the road was washed into the canal at Ebridge. In 1926, the North Walsham UDC put forward a plan to release purified effluent into the canal below Bacton Wood; they were already releasing “surface water” above Swafield Upper Lock via the “Town Drain”. Following a Government Enquiry, this was allowed with some restrictions. An elder of the town related to me that the area below Bacton Wood Lock, being shingle-bottomed, was a popular swimming place for the town, with the girls changing on the mill bank and the boys on the other. However, he remembers his Headmaster calling an assembly, at which he told them that they were no longer to swim in the Canal, as the laundry untreated waste effluent was making it unsafe. By 1944, the nitrates were causing excessive weed growths, blocking the canal and restricting the flow. To dilute this, the bank was cut just below Bradfield Bridge and the south back soke enlarged to 15’ wide. This led to the canal bed becoming dry, and as such was sold to be incorporated into a local arable farm in 1948.

Although the canal was repaired after the floods, and some works undertaken in the 1920’s, it seems that there was little trade above Bacton Wood lock, with the canal reported as out of use by 1927. It is unknown whether the *Ella*, who was trading to the Mill until 1934, loaded above or below the lock. Having finished trading the *Ella* was laid up in Ebridge Millpond until purchased by Nat Bircham in 1936, who then took her downstream. There are no records of the locks being used on the Upper

Canal since then. In 1940 the canal was designated as Defensive Line One by the War Department, which led to the unbanked sections of the canal being dredged by half-yard draglines, with the water levels lowered by a couple of inches along the Ebridge Reach, and the spillway at Ebridge rendered. In this rendering the builders drew the date "1941". Gun spigots were also placed on the Spa Common bridge parapets, and pill boxes placed at strategic points. Bridges were also mined. In 1943 and 1948 the Catchment Board's dragline was used to clear the unbanked sections of the Swafield – Royston Reach to clear pollution from the town.

Arthur Walker (N.W. Canal Co. Secretary) was keen to restore the Canal, and saw it still as a financial proposition for commercial carrying and pleasure boating. In 1953 he notes that "*All preliminaries (including grant) arranged for dredging the whole Swafield – Royston Reach by dragline*".

Unfortunately, as the land alongside was "*devoted to arable cultivation*" the dragline could not be used. However, in 1956, Robert Aickman, in the Inland Waterways Association's *Bulletin*, held Arthur up as an exemplar - "*What can be achieved if the will is present*" was his caption on Arthur's photograph of the company's mud dredger working along the Ebridge Reach. Sadly, Arthur's plans did not come to fruition. The next main restoration scheme was at the instigation of the Norwich Branch of the IWA. The plan was for North Norfolk



District Council to purchase the canal and for the IWA to set up a Trust, who would then be responsible for the restoration, management and maintenance of the canal in the future. Restoration would be "*undertaken by voluntary effort and by means of*

*Community Programmes funded by the MSC...*" (Jan 1983). After informal discussions, the NNDC decided that they were willing to purchase the Canal, and the Chief Executive, Mr Nolan, was "*given a mandate to approach the canal company*" by the Leisure Services Committee, in November that year. The scheme later floundered as the NNDC was unwilling to accept the Statute responsibilities of the 1812 & 1866 Acts.



Ebridge Mill, c1960 –  
N.Riseborough-Woodhouse &  
Lock c 1978, G.Ecklesey

The latter half of the twentieth century saw many changes to and around the Canal. By

1950, Ebridge was the only mill still working (closed c1998). Swafield Mill and the Royston staithe buildings had been demolished or converted for residential use, whilst those at Spa Common, between the canal and millstream, were pulled down in the 1970's to make way for a house and scrapyard. The Wherry Inn no longer held a licence, and the arch at Ebridge was replaced by a platform bridge. However, the most significant change was the dewatering of the canal from above Royston Bridge to Bacton Wood Lock. It is difficult to exactly date this event, or the circumstances that surround it, but the most likely scenario is connected with the re-building of Royston Bridge. In 1969, Bacton Gas Terminal was being constructed, and the main route for lorries was via Royston. In order to make the bridge stronger, it was decided to lower the deck, with an Armco tube underneath to take the canal waters. So as to make construction easier, the canal bank was breached above the building site, allowing water to flow into the east soke, leaving the site "dry". The Armco tube was even painted with bitumen up to the expected water level in preparation for the return of the flow. For some reason, the flow was not re-instated through the bridge. This stream then passed through a culvert under the canal, below Royston Bridge. The culvert had not been built large enough to deal with the full flow, and soon became blocked, resulting in flooding of meadows to the north. The Internal Drainage Board decided that the easiest answer was to dig out the culvert, allowing the water to cross the canal in a stream well below the level of the bed. So this stretch never had its rightful waters returned.

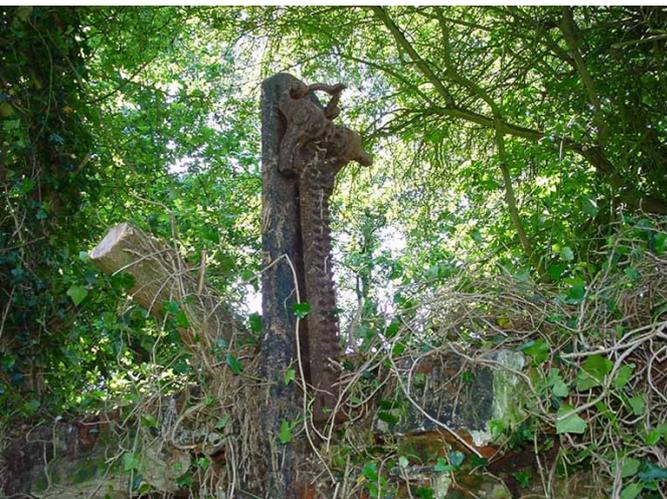
In 1992, the East Anglian Waterways Association put forward their proposals for the restoration of the Canal; which was followed, in 1994, by a meeting with the NW Canal Co. directors. Over the next few



years numerous meetings and/or correspondences were held and exchanged between the EAWA and various bodies such as the Councils, National Rivers Authority, British Gas and others, mainly at the instigation of Alan Faulkner. Civil Engineering Work, Channel Restoration and Ecological Surveys were all

professionally commissioned. In 1999 a meeting between all interested parties decided that "*to do nothing was not an option*".

The new Millennium saw the first restoration works undertaken on the canal, with dredging at Spa Common and the inaugural voluntary work party at Briggate Lock, then at Bacton Wood Lock June 2001. That's another story, though.



Photos -Bacton Wood Lock  
Work Party, June 2001,  
G.Brown

## **WELCHES DAM LOCK**

The Project Hereward team has issued an update on the repairs required to this lock based partly on a report by Roy Sutton in December 2007 supplemented by observations made following a site visit on 19 January 2015.

### Chamber Wall Repairs:

2.1: No major structural repairs are needed. The chamber is basically sound and were unnecessary major repairs to be undertaken then there would be a risk of creating more problems by disturbing the balance that has taken over a century to establish, than might be solved.

2.2: The verticality of the chamber walls and the condition of the downstream southern training wall should be monitored in future years. At some time major repairs will be needed to this downstream southern training wall, but not yet.

2.3: The main cracks (those over 3mm horizontal width) should be filled with lime mortar that is soft enough to allow the movement that has caused the cracking to continue without risk of creating rigid patches that would spread damage to adjacent areas. The purpose of filling is both cosmetic and to tighten-up the structure, preventing secondary damage due to water and frost.

2.4: Areas of brickwork loosened by cracking (and so sounding "hollow") should be removed one leaf deep with a further leaf in alternate courses for keying-in new brickwork. There is no point in attempting to cut out deeper than this unless it is found there has been substantial mortar loss at the depth under consideration as well as the surface.

2.5: All areas of blown render should be replaced with new render.

### Chamber Floor:

3.1: The chamber floor is of 9in x 2in longitudinal timber planks laid over 4in wide and 7.5in deep wooden beams (transoms) that span between recesses in the lock walls. The transoms are at centres varying from 4ft 2in to 2ft 10in. Some of the floor planks have broken loose from the transoms and some transoms are rotted and no longer provide support. Comprehensive repairs are required.

3.2: Water in the chamber, combined with the floor planks presently prevent access to see the exact constructions of the transoms; especially how they span between the walls and are fixed to the walls. Further investigating is needed in which a section of flooring planks is removed to provide access to examine a complete area of transoms and to survey their exact positions. Following that investigation it will be possible to design a repair which will either replace or supplement the rotted transoms.

### Lock Gates:

4.1: The top gates are holding back the 2m head of the Old Bedford River with only minor leakage. Overall they appear in basic sound condition.

4.2: The breast post of the southern bottom gate is split and slightly rotted. However the wood is resistant when hit with a sharp lamp-iron and at least 80% of the section is sound. This area governs the overall life of the gates. With refurbishment it should last a number of years. The hollow post of the southern bottom recess has warped. The bottom gate transoms are starting to rot at water level, but at present 95% of the original section is sound. None of the problems represent a structural danger at present.

4.3: If the existing gates were overhauled with new sealing boards and with the meeting posts shaved to remove the gap in the wasted area then the majority of the lock leakage problem would be removed and the gates will be serviceable for a further number of years. Bitumen painting, especially in areas showing signs of rot, would help.

Summary:

No major structural repairs are required to the chamber walls beyond minor but prevalent remedial crack repair work. On the lower lock gates there is excessive leakage past the deteriorated mitre sealing boards. A further problem is that the beams supporting the boarding of the wooden chamber floor have wasted and as a result large areas of the boarding are now loosened with some entirely free and will require replacing.

It was noted on the inspection that the line of sheet piles driven across the upstream entrance to the lock, which have closed the lock to navigation, are not in fact holding back the water of the Old Bedford River. This is because they do not extend to the southern bank of the entrance but leave a gap of around 1.5m. The 2m head of water is being held entirely by the lock top gates with only a small leakage at the mitre. This supports the premises that the piling was introduced in 2006 to prevent use of the lock and therefore navigation rather than to support the head of water, and the lock top gates are still performing this function well.

*Andrew Storrar*

A leaflet has been produced jointly by the Association and the Inland Waterways Association promoting the reinstatement of navigation through Welches Dam under the heading of "A new dawn" as an important part of Project Hereward. Over the Easter weekend IWA Peterborough organised a protest cruise at Horseway Lock, at the northern end of the closed navigation. As there is no winding hole at Horseway the boats were in pairs – joined stern to stern with one leading the way to the lock, and the other then taking the pair back to the junction with the Sixteen Foot Drain.

## BROADS NOTES AND NEWS

**BROADS AUTHORITY CHANGES:** Professor Jacquie Burgess has taken over from Dr Stephen Johnson as the new chairman of the Authority whilst Sir Peter Dixon has become vice chairman. Jacquie was first appointed a member of the authority in 2012 and was elected vice chairman a year later. She lives in Trowse and is a keen sailor. Sir Peter lives at Hickling and is a member of several Broads organisations such as the Broads Society and the Norfolk Broads Yacht Club. Meanwhile Matthew Bradbury and John Ash have been appointed members of the authority by the Secretary of State for DEFRA.

**NEW DREDGING EQUIPMENT:** In February the Broads Authority took delivery of "Iona", the second new mud wherry to be delivered from the yard of John Kearney in Northern Ireland. She joins "Gleaner" that arrived last year and will be joined by a third vessel before the end of the year. These wherries are smaller at 16½ metres than the wooden boats they replace which were obtained when the Authority purchased May Gurney and its Griffin Lane dockyard in 2008.



This will enable them to navigate the narrower rivers such as the Chet and the Ant.



Another development is the retirement of the old steel-hulled barge with a crane mounted on it; this has been replaced by a versatile long reach excavator which will sit on linkflotes and dredge using a new hydraulic clam shell bucket. Over the last four years the Authority has purchased three of the long reach hydraulic excavators and a set of four linkflotes.

**THE BROADS BEAT:** This beat is made up of two full time officers, two community police officers and four special constables from the Norfolk Constabulary. They are based at Hoveton where they work hand in hand with Suffolk Constabulary and have their own trailered boats and a vehicle which are supported financially by sponsorship. Theft of boating equipment is proving a major problem as it appears organised gangs from abroad have been stealing to order and then shipping the navigational equipment out of the country. Hirers, with young people in particular, are being warned of the dangers and also about their own behaviour in not causing problems for other holiday makers.

**HISTORIC VESSEL TOLLS:** In a discussion paper the Broads Society raised the subject of reduced tolls to help Broads heritage boats. This could be in line with the Canal & River Trust's 10% reduction for historic vessels. However the general feeling of the Broads Forum was that this could lead to more complexity and bureaucracy. The Hunter Fleet currently pay 2.6 times the private toll as they are classed as hire vessels but even so it only represents 2.3% of total overheads so a 10% reduction in tolls would be virtually unnoticed. Likewise the Norfolk Wherry Trust felt it would make a negligible difference to running costs. And there would also be problems in deciding what were heritage craft as it is not just an age thing and some boats built in the 1950s were probably just as important or even more so that some built pre war.

**NORFOLK WHERRY TRUST:** Thanks to a grant from the Broads Sustainable Development Fund the Trust is now in possession of museum standard soft ware and had begun the huge task of transferring records to this and adding background information. The early handwritten minutes of the first year of the Trust have been digitised before the originals are deposited at the County Records Office. Likewise Roy Clark's archive of early photographs and others taken in the early days of the Trust have been added to the digital data base.

## NORTH WALSHAM & DILHAM CANAL



**BRIGGATE:** Work has continued apace on the canal and our pictures show (left) the lock which has been tidied up after being left untouched for some time due to safety concerns. Meanwhile (right) Dr Tom Moore has used his dredger to carry out further clearance as the reeds have fought back. The machine looks somewhat precarious perched on the side but Tom's skill is of a high order.



**SPA COMMON:** Through the good efforts of Laurie Ashton and the Old Canal Company a work platform has been acquired which will allow the work parties to expand their already extensive activities. One of the first calls was to service and paint the platform and (left) the team is shown busy at work. The right hand picture shows the OCC's similar pontoon, which had been placed across the Canal to allow work party members access to deal with several large trees growing in the Canal, being lifted to allow the swans, and their nine cygnets, to pass downstream.

There have also been work parties at Swafield where a considerable clearance has been made with trees and other growth being dealt with and the canal taking on the appearance of an attractive waterway.

Meanwhile the North Walsham & Dilham Canal Trust remains active on the promotional side. On Thursday 14 May three films recording its work were on show to the public at St. Benet Hall, Vicarage Street, North Walsham. They featured "Royston Bridge to Pigney's Woods"; "Building the Banks" and "Workboats, pontoons and Dredgers" all being particularly relevant. And over the first weekend in June the Trust held another of its successful open sessions at Ebridge which attracted great interest from the general public.

*Several news items have had to be held over to our autumn issue - Ed.*