



Welcome to our Spring Newsletter. We offer a major article by Ian Shepherd, on the developments of the proposed Wensum crossing by the Norwich Western Link Road. This has been a hugely controversial and protracted project, but all the environmental bodies concerned have been against it. As a major protected chalk stream in Norfolk, with echoes of a similar crossing of the Glaven proposed in 1987 for the Letheringsett bypass, the same issues are relevant to our Group.

2023 has been a traumatic year for all those concerned about the Glaven, because of the flooding which occurred as a result of the extremely wet second half of the year. This is described in our second article together with the problems encountered with the Orsted wind farm cable route crossing the Glaven catchment.

We also bring you up to date with an article on the new wetland created on the Bayfield Estate, which we can further discuss and visit at our **AGM** on

Saturday 6th July 2.00pm at Bayfield Hall. All welcome.

We continue to lobby for improvements in the river water quality, the threats to which remain principally sewerage works output, which is too high in phosphates principally, and some farming practices, which can risk silt and nutrient runoff. The introduction of aspects of the Environmental Land Management Scheme (ELMS) is being embraced by most Glaven Farmers which is very encouraging.

Anglian Water have introduced limited phosphate stripping at Holt Water Recycling Centre, but more still needs to be done to help the Glaven recover from all the adverse inputs to the river system. We have been engaged with their environmental team to try to make some progress.

Ian S has been writing and editing the newsletter since 2004, with tremendous enthusiasm, knowledge and dedication. As a founder member of the Group with Robin Combe, Carl Sayer and others,

and as Hon Sec since its inception, Ian has been a driving force in the protection and recuperation of the river. Since the group formed in 1999. At that time, 25 years ago, the river was in a very sad state. Many positive interventions that the Group have been involved in over the years, by have often been led by Ian. He now feels that retirement as secretary and newsletter editor beckons, and I would like to express the Group's great appreciation for all his top quality output over the years. He has held the Group together, inspired us, and we hope to benefit from his continued contributions to the committee.

We plan to continue the NL as a biennial hard copy (the cost of which is met by your much appreciated subscriptions), with the expert editorial skills of Richard Kelham and Tony Leech from our committee.

Our back page brings you other river news. I hope to see you at our AGM

Henry Crawley

The Proposed Wensum Valley Link Road: The Landscape and Wildlife Impact

In our previous Newsletter we had an article which set out the rejection of a proposal for a road to cross the Glaven river and its meadow – see Autumn 2023 and in particular page 5 for the various routes that were up for consultation. This was in the context of a designation by the Norfolk Wildlife Trust of the meadows south of Little Thornage as a County Wildlife Site in 1982, and in 1984 the designation of the Glaven Valley Conservation Area from the sea to the headwaters of the river, passed by Parliament. It took from 1987 to 1992 to win this road battle. This was in the age when the county council members had a genuine regard for the value of wildlife and landscape.

This era has long since gone and been replaced with growth which comes from the development of land. This is not just county councillors but nationally. The Department for Transport has a policy that it is important to 'facilitate the delivery of development'. Alongside of that is a complex system whereby the road is value for money over a period of sixty years, plus if the council spends say £30 million in planning, that is 'sunk cost', not included in the business case required to get DfT funding. So with the county council plan to build a dual carriageway road across the Wensum we are not so much in a very different league, as on another planet.

The RGCG extends its remit to landscape as well as the ecology of the river and its meadows. The Wensum as a whole is hugely important as a wildlife corridor. The site is tranquil, no noise, no lights, many footpaths. We see



Top: Route C would come at an angle from the left to cross the meadow footpath, with landfall near Low Farm.

Centre: midway across the meadow. At this point the viaduct dual carriageway would be above your head.

Bottom: the landfall is near Low Farm, and the route would run through the Primrose Grove and Nursery Plantation, with the super colony of the barbastelle bat.



Top: this looks back to the wood bridge area, where come from. In the foreground is Low Farm on RHS, and on LHS is Rose Carr, which abuts the Primrose Grove and Nursery woodland.

Bottom: East of Low Farm cattle are grazing the meadow. Behind them is that part of the Wensum Valley Golf Course within the meadow floodplain. This area, alongside all the meadows discussed, saw major flooding by Storm Henk, see the aerial photograph at page 5, where text explains this casts more doubt on the stability of Route C.



The FoI shows there was a series of meetings between the council and WSP consultant and the Environment Agency and Natural England (EA/NE), the first of these, with recorded minutes, was on 18 October 2018, and the minutes mentioned a previous meeting in July 2017; between them was a contract for payment to EA/NE for their advice. The council had considered the current Preferred Route Alignment (PRA) at the July 2017 meeting, which had no minutes, and at the October meeting the subject was entitled Short List Options and favoured Route C. The council Cabinet adopted Route C on 15 July 2019, shortly after the working party recommendation. Those supporting the road went for Route D. but after some discussion the council kept the Route C.

There was one very interesting matter with this October meeting. Immediately after the minutes as seen on the computer there were four bat survey maps with no explanation. All were based on Route C only for Figures A, B, C and D. The placement of the images it seems was a 'last minute' thought by WSP to council members. There was no more to be heard on this until an agenda for the meeting at 15th January 2020. Buried in the Appendix was a list of eight PDFs, one entitled Minutes 18/10/2018.FINAL.pdf. It had taken a long time for WSP to 'correct'. There was more evidence with a botched Technical Note 6 dated 20 December 2019 which only showed Figure D, but not A, B, C, although they were mentioned in the text.

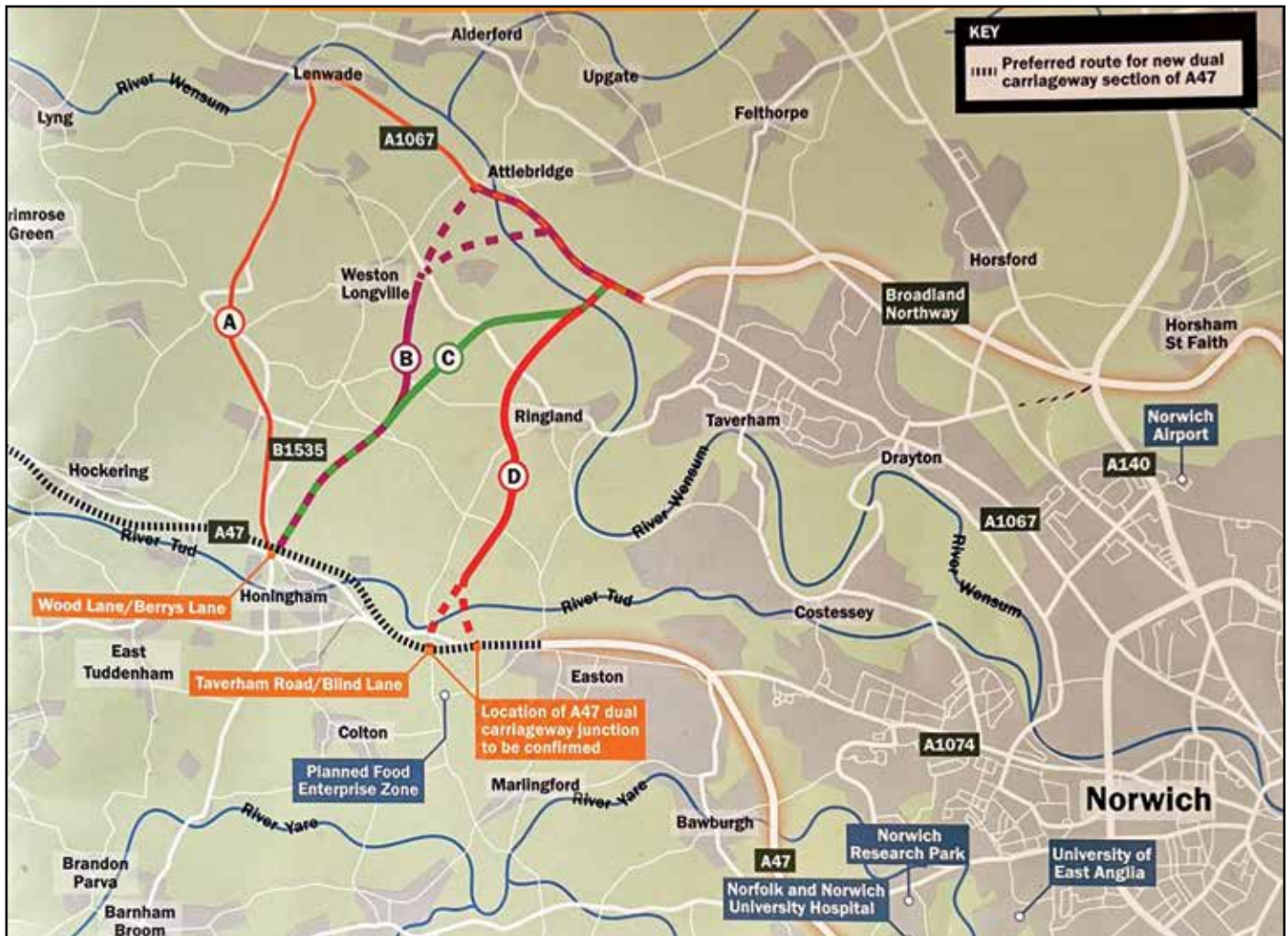
Another colleague had placed a FoI on the contractor to do the build at 2021. This is Ferrovia, and they delivered an 'Refined Alignment Design' for Route C. This was brought about on seeing the route went directly through

landscape and wildlife as intertwining. It is this that makes us illustrate with photographs. We take Low Farm as a 'marker'. This is a Grade II building, the only one in sight. There is a footpath from the Attlebridge stout wood bridge, on the north side, close to the A1067, and crosses the river and floodplain meadow to reach Low Farm. The front page photograph looks through the bridge and provides a panorama direct line across the meadow; and shows the woodland where there is a super colony of the Barbastelle bat.

There is a long history going back to 2004 of Norfolk County Council wishing to build a bridge across the Wensum and the first in 2004 was rejected on environmental grounds. However, the council held a consultation between 26 November 2018 and 18 January 2019. A Freedom of Information(FoI) for the years 2018-2019

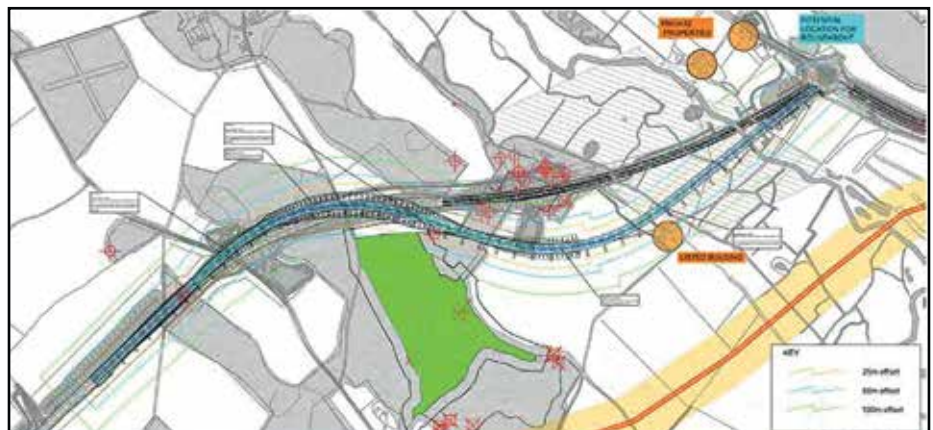
gave an insight on the technical difficulties in taking a dual carriageway road across the river and its meadow floodplain. There was a series of meetings between the council and their consultant WSP, the Environment Agency and Natural England to advise on a short list of route options. The road would take off from the A1067 on the north bank of the river, and land close to Low Farm on the south bank near Ringland.

The road would be 720 metres long. The landfall on the south side would take some 60 metres, with the crossing of the river and meadow floodplain being 660 metres. Our front page photograph shows the terrain that would be affected, and which the road would cross: river, meadow floodplain and the trees beyond which harbour a colony of barbastelle bats. For us the landscape is also key.



Top: Route C was preferred by 18 October 2018, before the consultation, and never changed. Once over the Wensum, the route runs to Honingham to join a dualling of the A47 there. If completed the Greater Norwich Partnership Local Plan will then assign a Garden City with 4,000 houses at Honingham Thorpe.

Bottom: The 2021 refinement on crossing the Wensum is totally irrelevant.



the core woodland. This makes zero improvement to the situation. Since then NWT has done further work and found that all the woodland along the whole route to the A47 has to be protected. In short this is also Not Acceptable, for the damage it would do.

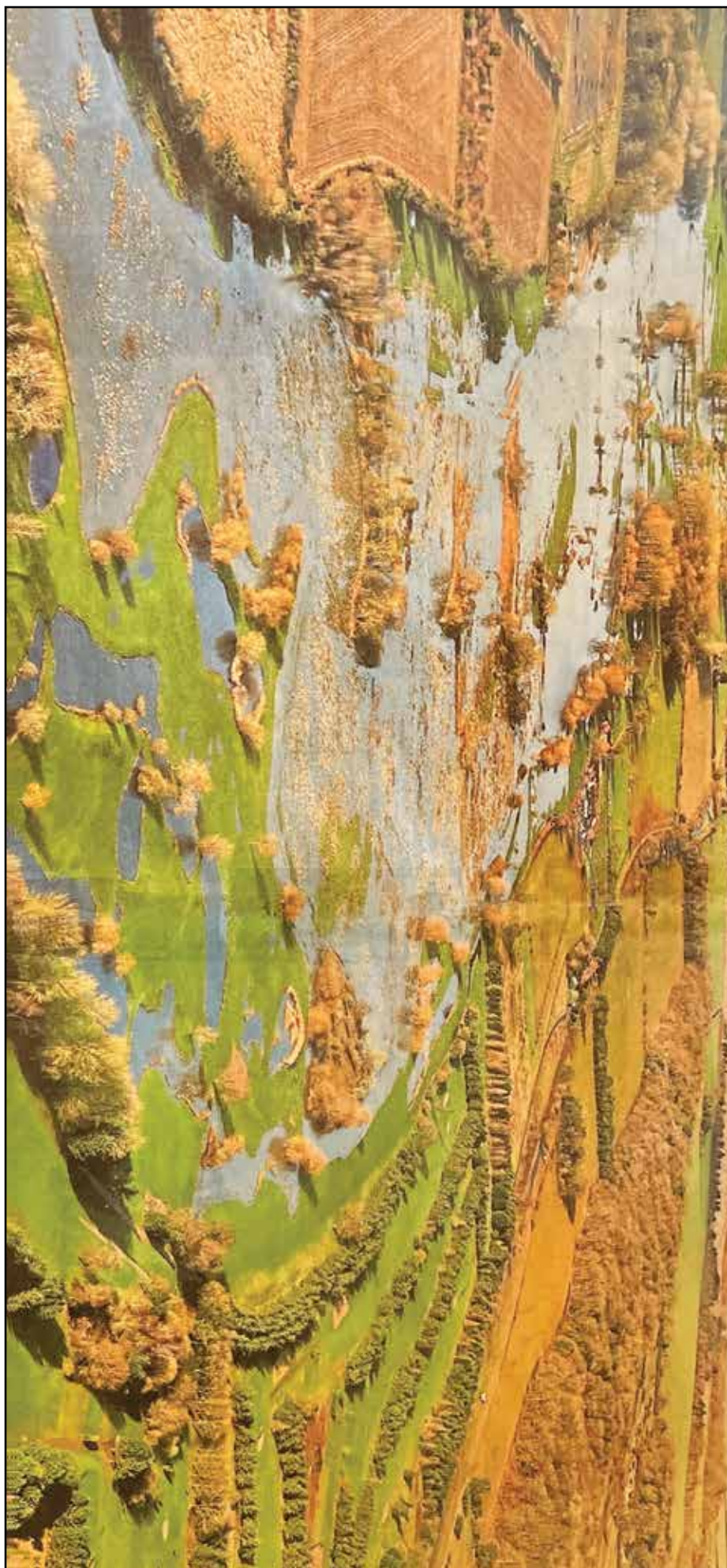
Throughout this whole period a considerable of work had been done on the design of the dual carriageway bridge. This focussed on the meadow floodplain and the hydrology, well known to be very heterogeneous, with a geology that could change within a metre or two from chalk, to clay or peat bog. This is very critical

for the piling and pillars which support the bridge, and for the stability of the viaduct bridge from A1067 on the north bank to the Ringland south bank. The recent flurry of Storms now put the stability at a much increased risk, see our page 5.

The front page photograph encapsulates all the main features of the site, but one is not obvious. The footpath from the bridge is not straight line: there is a kink and a change of direction. At the centre of the photograph there is a line of bushes which act as a marker on the approach to Low Farm. The page 5 aerial picture

shows the degree of flooding as head high.

The Norfolk Wildlife Trust (NWT) are now leading the objectors, which include the Norfolk Rivers Trust, CPRE Norfolk, backed by Chris Packham, Stephen Fry and NWT President Patrick Barkham. The NWT has a bat specialist working on a number of bat species, the most important is the rare barbastelle bat, with the highest (International) designation for wildlife. The colony of these bats which use the woodland on the south side of the river for roosting and maternity is the biggest in England. They also forage



for food over a long way in all directions, and that includes to the south of the site of the woodlands where Route C would join the A47, The River Wensum also has the highest ranking for nature, designated as a Special Area of Conservation (SAC), from the headwaters to Costessey, 78 km long. The other SAC rivers in England are the Test, Avon and Lambourne. How can you replace all these irreplaceable landscape and wildlife features? No wonder England is the most nature-depleted in the world to consider that which is not acceptable.

In 2012 the Government made a huge change to National Planning Policy Framework. There was to be a presumption in favour of development. The exception was unless the project was centred on biodiversity. District councils have to progress their Local Plans within this context. All Local Plans are years behind their targets, mainly because of Government changes. What remains is the set housing target over the number of houses to be built over the next 25 years. Some five years ago the Greater Norwich Local Plan had written in a Garden City at Honingham for 4,000 houses. But this was taken out to become a 'reserve'.

With the HS2 fiasco there was a spray of funding to smaller road projects, which included the NWL but now put back to 2029. Water resource is a huge issue: a network of pipes from Humberside water for former industrial use to support the needs of the East of England. How sustainable is that?

Storm Henk.

The series of Storms experienced across the UK has caused much concern and discussion on the implications. We refer to one specific case, sparked off by a two page spread in the EDP on the 6th January. This was an aerial photograph by Mike Page, following Storm Henk on the 4th and 5th of January. The Wensum Valley Golf Course in the foreground to has flooded. At top and left it shows the footpath from the Attleborough wood bridge across the meadow to Low Farm, but only by the top of the bushes as a 'dotted' straight line. To the right of Low Farm is the track footpath which goes to Ringland, but a little way up the track is Primrose Grove and Nursery Woodland, looking across a strip of arable land – shown as the bottom picture on page 2 as the core of the barbastelle bat.

The stability of the piling and pillars of the viaduct is now yet further under question Likewise the impact on the large lagoons which receive the pollution from the viaduct, and need to be close to the floodplain.

Ian Shepherd

Recent flooding on the Glaven

What happened, and could it have been lessened?

Henry Crawley



The extreme rainfall events through the Autumn and into this year, have been considered exceptional, but maybe the new norm, with climate change. Local annual rainfall has gone from approximately 600mm to 900 mm in 2023. What could or should be done to try to reduce flood damage and pollution from runoff into the river? These events will recur, as many expect they will to an increasing degree.

The RGCG and our colleagues at the Norfolk Rivers Trust (NRT) have been promoting and instigating flood mitigation efforts for many years. The first major project on the Little Thornage meadows in 2006 was to modify flow in the river and reconnect it with the flood meadow by removing the dredging banks that have been created over



Top left: 12th September
Cable route showing subsoil running towards the river, access track to right.

Top right: 12th September
Silt runoff bypassing barrier into river.

Middle: 19th September
Hempstead millpond filled with silt on several occasions.

Bottom: 4th October.
Selbrigg pond normally isolated from the river, filled with cable route runoff.





decades of dredging and straightening rivers.

The subsequent major projects at Hunworth in 2010, and the Bayfield New River in 2014 also created re-meandered rivers and connected the river with the flood plain.

The creation of scrapes in the lower Bayfield meadows in 2015, included lowering of some of the rivers banks to encourage lateral flow at times of flood.

The introduction of beavers to the upper Glaven has already dramatically altered the woodland they are inhabiting. It has created an extensive wetland at the headwaters which acts as a buffer to drought and surface water runoff at times of heavy rain.

The latest work to create more wetlands in the upper Bayfield Estate meadow at Home Farm, was started in 2023, and also lowered the main river bank to allow flood spillage towards the scrapes.

Purposefully flooding of meadows in the winter was an agricultural practice in former times, as it put nutrients into the grassland and brought on growth earlier in the Spring to give graziers an advantage. This practice died out and was replaced with more drainage work and digging out the rivers to lower the water table. Meadow that is flooded for long periods will kill the grass, so a balance is needed. To reduce flood risk downstream, water needs to escape sideways at times of high flow, and then run back in quickly. This is how the flood meadows reinstated on the Glaven work well, as we have witnessed in recent years. Another benefit is the deposit of silt and hopefully beneficial nutrients into the grassland or fens. If silt stays in the river having been washed off the land, it can smother the bottom of the waterways when the flow slows downstream, particularly in lakes or estuaries.

If silt runoff is sufficiently turbid, it can reduce oxygen levels and kill fish

**Top: 4th October
Combined outflow from Holt WTW
and runoff flooding into new
Bayfield wetlands. Photo Richard
Price**

**Upper middle: 4th October
Barrier at Bodham crossing over-
whelmed.**

**Lower middle: 5th October
Bayfield new wetland flooded with
storm overflow from river.**

**Bottom: 5th October
Letheringsett Millpond let down af-
ter flooding, showing silt build up.**

and invertebrates. A silt coated river is disastrous to some spawning fish, especially trout. Silt runoff may also contain agricultural chemicals such as fertiliser and pesticides, which are not good for wild flower meadows and fens. Another potential problem comes from the combined sewage overflow which may spread over meadows when the Water Recycling Works are overwhelmed by heavy downpours, which happens occasionally at Holt, and did this Autumn.

A common reaction to flooding events is a call for more dredging of waterways. I would like to comment on this concept which is often used to berate the Environment Agency (EA), and others for neglecting their duty to mitigate flooding. It is sometimes thought that, if the cross sectional area of a river is enlarged by dredging, it will cope with increased input. A helpful metaphor is to compare a river with a hosepipe, and that if you have the tap full on (a flood), having a larger bore hosepipe will reduce the volume coming out at the far end. What goes in will come out at the same rate, however fat the hose. The only way to increase capacity in the river system is to have a leaky river (or hose).

This is the background to recent flooding, and I will explain why all our best laid plans were overtaken by events.

The first concern this year related to the wind farm cable route which was planned to cross the upper Glaven's two headwater streams at Bodham and Baconsthorpe. The removal of topsoil in an 80 metre wide corridor between Weybourne and the destination near Norwich crosses several rivers, of which we were the first. Previous cable route excavations had caused runoff into the river and we expressed our concerns to Orsted, and Volkerfitzpatrick the contractors, that the slopes down to the river were very vulnerable to runoff into the river. The first problem arose because new land drains were dug through the cable route and directed into river. We were alerted in late July when Hempstead Mill pond a mile downstream filled with sandy silt which was clearly coming down the land drains after rainfall. The EA were alerted and visited.

We were reassured that the drains

Top: 28th October
Bodham crossing, sandy runoff
submerging cable pipes.

Middle: 2nd November
Flooding at Bayfield which
entered the lake.

Bottom: 2nd November
Bodham stream with barrier try-
ing to restrain runoff from cable
route.





**Upper: 2nd January.
Bodham stream, buffer strips overwhelmed by runoff.**

**Lower: 2nd January
Baconsthorpe, sodden fields and insufficient buffer zone.**



were fully consented, would run clear eventually, and that the contractors were taking every effort to prevent runoff. This all sounded very hollow when on 5th August, an extremely heavy downpour washed a massive amount of silt into the river from the cable route at Baconsthorpe, overwhelming the streams above Selbrigg pond, and filling it with silt, for the first time in memory. Hempstead Millpond received another dose of silt downstream.

Another heavy deluge on 2nd October caused the volume of water in the

river to rise to such a degree that both Hunworth and Letheringsett Mills were flooded disastrously. There was clearly road and field runoff that added to this flood, but the cable route runoff was a significant factor.

The EA classed these as Grade 1 pollution events, and what followed were concerted efforts to hold back runoff with plastic sheet barriers, straw bales as absorbers, and increasing numbers of bunds and ditches. These were largely ineffective in preventing further runoff into both the Bodham and Baconsthorpe

streams, because the rains continued, and there was no absorbency left in the stripped and compacted subsoil.

Flooding and runoffs were recorded in September, October, November, January and most recently on 18th February. Runoff from roads and fields on occasions of course contributed to the high river levels. Some farmers were fortunate to have established winter cover crops or cereals, but others lost significant amounts of topsoil. Anglian Water (AW) had recorded two combined sewage overflows when we were invited to visit the Holt Works on 13th October. Their outflow runs through the Letheringsett estate and joins Bayfield at the new Wetlands. The latter were designed to bypass the outflow from joining the wetland, as polluted high nutrient water could adversely affect their ecology. In the event the flooding overwhelmed the bypass and the whole meadow was inundated. Further down the new river overspilled into Bayfield Lake, adding unwelcome silt.

In summary, all the connected and unconnected lakes on the river were flooded with silt on more than one occasion. The river received a mighty dose of sand and mud which will take years to clear from the riverbed. The human and material cost was flooding of two mills, and a very difficult agricultural year for farmers.

On the positive side, all the previously created flood mitigations, beavers and wetlands took up a great deal of flood water which otherwise could have caused worse domestic flooding downstream. NRT took a look at the fish and invertebrate counts not long afterwards, and they seemed to be holding up.

In the aftermath, meetings have been held to focus on making the river even more flood-resilient in the future. The EA are still engaged with Orsted about the consequences of the runoffs, and we hope that the experience has been salutary, in preventing similar events at other river crossings.

With the NRT we have drawn up a list of possible interventions to reconnect further stretches of flood meadow, restoration of stretches in a degraded state, aiming for bigger and better buffer strips to arable farming in the headlands, and maybe extending the work of the beavers one day. Orsted have expressed some interest in helping some of these interventions move forward.

The New Wetland at Home Farm, Bayfield and its Wildlife

Richard Price



Before the works were carried out in the late winter and spring of 2023, this area by the Glaven at the easterly corner of the Bayfield estate was not attractive to wildlife. In the summer and drier periods, the earth was like concrete with the grass eaten low by the herd of Aberdeen Angus in the summers; and in winter the relatively rare and irregular floods usually lasted a short time – not much more than a couple of days or so. As a result there were few birds here.

The commonest was Pheasant, with an ever-present Buzzard floating above.. Such birds that there were largely frequented the river itself not the meadow to its north side. These included Mallards, Mute Swans, Cormorants, Grey Herons and Little Egrets and fly-throughs by Kingfishers. There were occasional waders, and in fact I saw more Jack Snipe than Common Snipe and those were along the lower reaches of the

Red Deer stags processing through barley above the wetlands at dusk, July 2023.

river and in the late winter. In snow about three years ago there was a big influx of Woodcock across a wide front in North Norfolk, and there were at least twenty-five along the fringes of Dovecote Wood which borders the meadow on the north side.

Since the works, not a lot has changed and is unlikely to do so until the vegetation has grown up which I hope it will do during the course of this year. Furthermore, the houses and gardens at Home Farm host quite a lot of breeding birds which I hope will benefit from the wetter adjacent environment. These include breeding Pied Wagtails, Stock Doves, Barn Owls and Kestrels at my house which overlooks the lower end.

However there have been some developments especially during this

recent wet period. Waterfowl have become more frequent favouring the flooded scrapes. These include Mallard, Mute Swans, Greylags, a pair of Egyptian Geese and on 4 February a pair of relaxed Shoveler spent the day on one of the middle pools. There have also been short visits by a Green Sandpiper, a Common Snipe and Grey Wagtails.

The most spectacular visitor was on 18 July 2023. A White-tailed Eagle flew up the river 30 yards from me and disappeared into a well-foliated large tree overlooking the wetland. It eventually flew out the back and up the hill and disappeared into the estate. It was a juvenile female from the Isle of Wight reintroduction scheme and was tracked across to the Snettisham area and two days later heading south past Milton Keynes, seen by no-one else.

The river has always been a good bird migration and commuting route used by Greylags and other geese,



Cormorants, Little and Great White Egrets, a Bittern on one occasion and in the spring a pair of Oystercatchers regularly and noisily fly through. I am hopeful the river and this pattern of bird movements will facilitate more birds finding the new wetlands as the habitat grows up.

Not only birds have been attracted here recently. Henry Crawley spotted Red Deer tracks by one of the scrapes last summer (which tied in with me seeing a group of eight crossing Horse Hill) and Jonah Tosney found Otter spraints by another pool (and Otters are regular visitors to the gardens here). Roe Deer and Muntjac are also regular visitors.

Butterflies were very scarce in the new wetland area. However, I am hopeful that with increased vegetation and reduced grazing, this will change for the better. Certainly I have seen a big improvement in the little meadow out from my garden and bordering the river since grazing stopped five years ago with at least sixteen species recorded there, a big increase in Orange Tips and last summer my first record of a Brown Argus.

Watch this space !

Left top: the flooded wetlands showing the brown sediment, 3 October 2023.

Right top: Brown Argus, July 2023.

Middle: White-tailed Eagle, in flight. Photo courtesy Roy Dennis Wildlife Foundation.

Bottom: Grey Wagtail, August 2023.

News in Brief



Above: felled poplars let light into the wet woodland.

Right: some sculptural tooth work.

Beavers

The Glaven Beavers continue to thrive, and 2 kits have been born. The extra sets of teeth chewing, and the building of more dams have accelerated the transformation of the woodland site in the headwaters. The question of release permits in the UK is stalled by DEFRA. We believe that expansion of beaver territories in the right circumstances one day, will be beneficial to the river ecology.

Mink

The success of the Waterlife Recovery Trust in mink eradication has been widely reported. Their website is worth following. Our locally manned traps have only caught one juvenile male last year, and volunteers are ably supported by Stephen Mace from WRT. It is very probable that no mink breeding now occurs in Norfolk.



Water Quality

Water quality testing is vital to monitor nutrients and pollutants in the river. This supplements any testing done by Anglian Water at their treatment works, or the Environment Agency, and can be done at sites of our choosing. Anne Casey and Julia Mumford-Smith are now taking this up in conjunction with the Norfolk Rivers Trust.

Bodham Stream

This headwater source has been drying up in summers, which is new, and troubling. There was concern that abstraction by borehole might be reducing the flow. AW have ruled out the effect of a new public supply borehole, and the EA are now looking further at the locality. This winter the stream has been anything but dry, with excessive runoff.

We aim to work in friendly collaboration with landowners and farmers, conservation organisations and relevant public bodies.

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