

Flooding Public Meeting Minutes

Friday 2nd February

Panel Members:

Duncan Baker MP

Henry Cator, Chairman, Flood Resilience Programme

Graham Verrier, Area Director, Environment Agency

David Kemp, Incident and Recovery Manager, Environment Agency

Paul Louth, Head of Water Recycling Networks, Anglian Water

Matthew Philpot, Chief Operating Officer/Deputy Chief Executive, Internal Drainage Board

Mark Ogden, Flood & Water Manager, Norfolk County Council

Also attending:

Grant Tuffs, Regional Engagement Manager, Anglian Water

David Allfrey, Interim Director Highways, Transport & Waste, Norfolk County Council

The meeting was opened by Duncan Baker MP who introduced all the panel members. Also, in attendance were elected members, parish councillors, flood wardens and residents from areas affected by flooding. Mr Baker also thanked Hickling Barn for hosting the event.

This was followed by a short introduction from each panel member.

Hickling Group – 22nd Jan residents of Hickling met to discuss their concerns over recent surface water flooding and flood-related issues. A statement of concern endorsed by Hickling Parish Council has been produced and presented to the panel this evening. For this evening's meeting, we present a condensed version of the statement. A copy of the full statement is available to read on the desk in the foyer.

Hickling Village is in the Broads National Park and within the Norfolk coast area of outstanding natural beauty. A nature conservation site, a Ramsar wetland of international importance, a designated special protection area, a designated special area of conservation and a designated site of special scientific interest. The village has historic connections to the Royal family and our new King, who champions the protection of the environment. This jewel in the Broads crown is blighted and contaminated by sewage.

Anglian Water - the local system of holding tanks, hydraulic pumps and sewage extraction pipes installed in the 1960s, in 2024 are not fit for purpose. Sewage overflow from the system contaminating our homes and the treasured and fragile natural environment of Hickling Broad. We demand a commitment from Anglian Water with a clear timeline for upgrading the holding tanks, hydraulic pumps and extracting pipes for Hickling village. Replacement assets all need to match demand for 2024 and beyond and should be funded from contingency, CAPEX and fast tracked. Previously when Anglian Water's assets were overwhelmed, they deployed tankers to pump out the holding tanks and the problems were alleviated. Anglian Water has refused to send out tanks to Hickling saying it is no longer a viable solution and is environmentally unfriendly, yet they have been deploying tankers to other parts of the county. We would like to ask Anglian Water what they were doing before that as it is not now acceptable and how can it be acceptable and environmentally

friendly to allow untreated sewage to flow into our properties, down our highway and into Hickling Broad, a SSSI site. No tankers leave Hickling with no short-term solution and no alternative backup. We demand that the decision-making process around the cessation of the tanker system be made public and Anglian Water, with immediate effect, agree to a return of tankers to remove sewage from the holding tanks as a temporary solution.

Highways – Norfolk County Council highways department has a statutory duty to maintain the public highway and its drainage network in a condition which is safe for users. We have had to endure sections of road across the village that have been under water for weeks due to blocked drains. Highways must agree to carry out a survey of the whole village to identify maintenance required to prevent future road flooding and provide a timeline to carry out such maintenance. Road drains, dykes and ditches that are their responsibility must be regularly maintained.

The Internal Drainage Board – the IDB has been negligent in clearing the system of dykes that are their responsibility, resulting in excess water that should be flowing away from the village flooding our roads and contributing to the overloading of our already overwhelmed and compromised sewage system. The IDB must identify and schedule, as a matter of urgency, work to be carried out.

The Environment Agency – the pollution of Hickling Broad has been reported to the EA on numerous occasions. The EA's lack of response to the pollution of this internationally protected site of special scientific interest is, quite frankly, shocking. Have permits or agreements about permissible levels of discharge of sewage been issued to Anglian Water? If so, we would like to know what they are and how they were decided. The EA must take a more proactive role in monitoring pollution in Hickling Broad and enforcing the law.

Public Health – due to huge pools of surface water contaminated by sewage pedestrians, cyclists, wheelchairs, mobility scooters and cars are all passing through deep water and taking it with them to all parts of Hickling, our homes and gardens. Children unwittingly splash through puddles and dogs and cats have it on their feet and fur and bring it back into our houses. We ask that the risk to health be considered a public health nuisance. The relevant agencies must be engaged and take actions to support our demands.

Finally, a future date must be set by the panel for a follow-up meeting where reports of progress can be presented.

Response from the panel:

Paul Louth from Anglian Water said that he sympathises and emphasises with the difficulties that many have suffered. He had been in the area today to see some of the issues first-hand. Anglian Water is here this evening to show its commitment to working together with the other organisations on the panel to get long-term solutions. They need to deal with the root cause of the problems and not the symptoms.

Anglian Water does not want any pollution. They have a mandate, a long-term strategy around zero pollution which they are committed to. Anglian Water does not think that any pollution should be getting into the water courses. The foul sewage network operated by Anglian Water is sized and equipped for the foul sewage, it is not equipped for infiltration of groundwater or other water getting into the system. We need to think about what is fit for purpose in terms of assets and, in essence, the root cause of the issue is water getting into the system which should not be there. This needs to be managed through all the agencies and Anglian Water is committed to working with them. Fundamentally, Anglian Water wants the same thing that residents do. They want to make sure that

they are working in partnership with the other agencies to deliver the outcomes. Anglian Water wants to let residents have a plan and for the plan to be tracked. Anglian Water is happy to go to a Parish Council meeting and share the actions and show what actions have been done.

This week Anglian Water have started to do additional work in cleansing the sewer from all the silt that has built up from all the water that has come off the Broads. They have not finished and will be back again next week, this is part of their commitment to ongoing maintenance of the system. Paul said that the foul sewage system is designed and sized appropriately, and he committed to doing a review. He fully anticipates that it will show that the sewage system is for foul effluent and will be sized correctly. Paul also added that throughout the whole period, Anglian Water's sewage system has not missed a beat, the pumps have been working as they expect and the sewage works have been operating correctly. The review can be carried out in the next two to three months and will be fully published. We are here to make sure that we have a multi-agency approach to eliminating the wrong water, whether it is groundwater infiltration or coming from the Broads itself, from getting into the network system in the first place. This is a complicated matter and is not just an Anglian Water task to resolve the issue and Anglian Water is committed to working with others.

Norfolk County Council Highways said that they have been looking at quite extreme weather conditions. Part of the problem they have in terms of highway drainage is that the drainage system has somewhere to discharge to. When in extreme weather conditions it can be a problem for the highway drainage systems as well as private drainage systems in the home. This is something that Norfolk County Council, as well as the other agencies, needs to take forward to see what they can do collectively to try and avoid these occurrences happening. The fact that we are all here, with the Flood Alliance keeping us in check and making sure we are doing the right thing moving forward, is important. It's important for us to demonstrate that we are working together to try and avoid what are horrendous situations for a lot of residents in Hickling and beyond.

An action David Allfrey is taking away from the meeting is to check their systems. They have already been looking at their systems in reaction to these events, not just in Hickling but across the County. It is not straightforward, there is a lot of highway infrastructure which drains away through ditches and waterways which are not in their control, so it is important that they work with others including landowners and other agencies where, collectively, they have to try and find a way of, in effect, moving the blockages from the system. When there are extreme events the groundwater levels can become so high that it is a problem for everyone. David said that it is important that take away the action that we will look at our systems and try and make sure that everything is as clean as it can be. Beyond that, it is the case of everyone working together to see what we can do to identify where the system blockages are. David will ask the team to come back and complete a review of the system.

Duncan added that both Norfolk County Council Highways and Anglian Water are committed to putting all resources into making sure that the system is adequate, that it is going to cope and is cleaned out. One of the problems we keep coming across is maintenance. There is not enough investment going in and there is not a fast enough response.

Environment Agency – acknowledged that they need to do more regarding pollution. They are committed to attending all category one and category two instances, these are their highest level of incidents. However, the EA cannot commit to attending some of the lower-level incidents.

Graham will speak to the representative from Hickling regarding data following the meeting regarding what information can be freely shared with them. The EA has a dual role, they need to work in partnership with Anglian Water. They also act as a regulator and the EA needs to be a tough regulator and, where there are breaches take action. They have taken action and there is a commitment to still

do that. The EA and Anglian Water will work together but the EA still have to take on the enforcement role when needed.

David from the EA spoke regarding the groundwater. We have had above-average rainfall since July 2023, the previous year was quite dry but from July to October 2023 it was wetter. In October 2023 instead of the 60-70mm of rain for the month we had 150mm of rain, getting it in short, intense bursts. This corner of Norfolk received 40mm of rain on the day of Storm Babet. On the 13th of October we had already received 40mm of rain and it continued to add up. This goes two ways, it can cause surface water flooding and then go down into the ground raising the groundwater levels up until it causes the problems described at the meeting. In November we had Storm Kieran which almost doubled the amount of rainwater in November as well. There is not a drainage system out there that would cope with that. As an example, 25mm of rain on an acre of ground is around 100 tonnes of water per acre. During these storms, you are getting double that per acre. December was also above average wet, although not double. January 2024 saw 70% of the average rainfall for January in the first four days. It is the continual topping up and the huge amount of rainfall which has caused the problems. Across Norfolk, it is starting to tail off but it takes a long time for the water to get into the system and away through the pump systems, rivers and drainage channels into the river. There are about 44 flood alerts across England and Wales at the moment with a good three-quarters of those for groundwater.

The **Potter Heigham** representative said that the big disappointment they have is that the Broads Authority has not attended. Duncan confirmed that they are in attendance, Dr Packman was standing at the back of the hall. As of the 29th January Potter Heigham has had a sustained continuous flood alert, with actual flooding for 110 days without any real outside assistance. The flood alert was reinstated on the 1st February. Why wasn't the 2004 Contingency Act enacted? There have been people who have had to abandon their homes and have had people with significant property damage and businesses who have not been able to operate for months. It would have been better policy to start thinking of central government aid and looking at activating a lot of the potential assistance that would have come from that. The representative said that they believe that there has been a significant sustained rise in river levels of northern rivers with the River Bure specifically. This affects the ability of the whole network to drain. The EA, the IDB and Anglian Water cannot get water away if the rivers won't let it out. Concerns were raised over the lack of dredging, especially on the Bure. They are in support of the IDB project for the use of the 100 stream and would like for that to be pushed as a matter of urgency as another means of getting water out. They believe that looking back over the last 30-40 years every flood risk management mitigation report scheme has said that there will be a flood barrier at Great Yarmouth and they think that we need to get a flood barrier at Great Yarmouth, not so much to stop water but so that it can be regulated. The water levels on the River Thurne over the last year have been such that there has been no ability to pass cruiser-size boats through Potter Heigham Bridge. Richardsons, who operate a fleet, and operate a pilotage system have provided some information – over the last year only one cruiser passed through Potter Heigham bridge on pilotage. Whereas in 1997, 13,500 passed through Potter Heigham Bridge on pilotage. There is now a requirement to pass day boats through on pilotage.

The IDB does receive funding. They have written to the Chancellor regarding additional funding. The Broads IDB operates across the Broads. There are 37 pumping stations in all and in this area (Hickling) there are three working together. Some of the pumping stations have more than one pump in them. The levels behind the flood barriers are lower than the river. If we switch off the pumps it fills up to the same level so, often they are pumping water round in circles. In this event there has been extensive over-topping for a long period, at quite some depth but we have had to pump as we are maintaining a line of flooding. If we stop it goes even further, so often there is a treading water effect that we are having. The Broads IDB spends around £1m a year managing the network. That is not only pumps but also the main drains and arterial water courses. Matthew is happy to come out and review as the IDB

has around 10km of the main drain in Hickling. The IDB does not maintain every single water course in the district, only the critical ones, but can be reviewed. Some are done every year and some every other year but the maintenance schedules can be reviewed. The over-topping which has happened has cost the IDB alone £308,000 so far in recent water pumping. That is mainly electricity costs and repairing the pumps. The IDB works closely with the EA.

Henry Cator added that the fall between Potter Heigham and Great Yarmouth 0.7m over 15 miles which gives you a fall of one in 42,000. There is no way that one in 42,000 is going to keep itself clear. It is going to suffer from sedimentation and build-up of sediment. This will affect the ability to carry water. There are certain hot spots and low spots that need dredging and one of those is the yacht station at Great Yarmouth.

The EA said that to some extent the high levels are due to the rain we spoke about earlier. The problem for this area and the River Thurne is that it is tidal. In a storm or during bad weather in the North Sea it raises the levels in Great Yarmouth. When the levels are raised in Great Yarmouth it prevents the Broads from draining. The water comes into Great Yarmouth and about two-thirds of it goes into Breydon Water. The rest of it goes up through the Bure, up the Ant and through the Thurne towards Hickling. When the sea level rises it does not allow it to drain. We have seen a lot of sea level rises due to the constant storms; it does not have to be raised far to stop the drainage. It reduces the amount of allowable time the water takes to drain. The water through Breydon Water has a stronger flow and will take precedence. Potter Heigham went into flood alert on the 13th October and it ended on the 29th January when water levels dropped enough to be under the flood warning level. It came back on again this week with the reason being Storm Isha which caused 155mph winds over the Faroe Isles and that is enough in the North Sea. The level for a flood alert in Potter Heigham is 0.7m and it went above those levels yesterday and today.

The bank-level at Potter Heigham is critical as there are waterside properties, you then have the bank which defends the farmland and Potter Heigham itself further inland. Those banks are continually sinking and not at an even rate. The EA will be out there again in the not-to-distant future to push them up and try to protect them as best as they can. They are looking for a historic balance and to try and keep it there as best as they can. They said that they wished they could react quicker and they are going to try and rearrange how they get themselves organised to allow them to do that.

Regarding the barrier at Great Yarmouth, barriers are hugely expensive for example. If the 40m wide barrier at Lowestoft could have been built it would have cost around £200m. They need to balance out the cost and at the moment the EA does not believe that the Treasury would accept their case.

In respect of dredging, the Rivers Thurne and Bure are on a tidal system. The tidal system is dredged and the Broads Authority dredges it for navigation purposes. If some of the silt was to be taken out as mentioned it would be rapidly replaced by sea water. It would not create very much space which is why it is not done. They are aware that there may be a problem on the Bure loop and if it can be proven by remodelling that it needs to be removed, and prove it to the people who finance the projects it could be considered. But it has to be proven.

Audience question from Mr Richardson - 25 years ago the lower Bure was dredged regularly, the water sloshed in and out and the situation was stable throughout the whole year, year on year. They got flooded in the winter for three or four days, then it went away. In October 2022 their yard flooded and was wet for about two weeks before the water went back into the river. It never cleared and the water levels in the river were full, they measured it as height under the bridge. Up until 1997 normal summer low waters were 7'3" under the bridge and normal summer level 6'9", this year throughout the whole year they had three days where it went below 6'. With levels of 6'3" for 2 days. Something

changed, firstly in about 1997 when the water started to back up and again in October 2022 which meant the river stayed full. The fact is that the river was too full to get rid of the rain. Work was done on the lower Bure around 1997 which changed the shape of the river. In 2021/22 there were certain changes to the width of the river in Yarmouth.

Mr Duffield has a place on the River Thurne and has sailed the Thurne for the last 70 years. He said that what had changed was that at Thurne there was a peninsula on the St Benet's bank which was big enough for the annual Spring regatta. The powers that be decided that they would allow the bank to erode and it has done so, back to where the flood wall is. What Mr Duffield believes they are suffering from is tidal lock. There is no incentive for the Thurne to flow into the Bure, it's like a funnel. When it is in flood it welcomes all the water from the Bure but when it comes to the ebb there is no movement that moves it around into the stream of the Bure and it is quite a substantial piece of land that has gone. It is a fairly cheap option to reinstate that to get the flow.

David from the EA agreed that it is tidal lock. He also said that it should be modelled and as part of the Broadlands Future Initiative the EA will be modelling it. They will try and get to the bottom of this so that they can try and improve things for the future.

Mr and Mrs Marsden from East Ruston said that their land is on the River Ant. Their garden, outbuildings, and woodland have been flooded to a depth of 0.75m for three and a half months. The question is about the 20-year Broadland Flood Alleviation Scheme which took place between 2001-2021. £150m was spent to strengthen and realign the banks in the area with significant works taking part in the middle and lower reaches of the river system. Their question to the panel, and in particular to the EA who commissioned the work, is when designing the scheme, what if any measures were put in place to alleviate the effects of flooding and increase groundwater levels for the upper reaches of the Broads river systems and their surrounding villages, particularly in the undefended areas of which East Ruston is one. In the event of tidal locking and high rainfall and with the knowledge of the significance of the flooding events over the past few months which may happen with increased frequency as a result of climate change, could those measures, if there were any, be improved?

Graham from the EA said that there has been significant investment in the banks in the Broads area through the Broadlands, anything we have to do we have to check with modelling. They can't be increasing flood risk or protecting something in one place and diverting it elsewhere, so they have to do extensive studies when they are doing that work. As David said earlier, the EA are trying to restore the historic balance, we have not been able to build the walls significantly higher, it is very unstable ground the embankments are constantly sinking and that has been the battle with the Broadlands work to raise those banks up and keep them within a range of levels. Some of those levels have dipped to be at the lowest point or slightly dipped below where we want them and we need to be quicker at getting those back in and building up the levels. It has been very much to maintain the balance that we had and the Broadlands Futures is going to be looking ahead to what we can do going forward for the whole of the Broads. Graham said that he understands that the embankments they have put in do not always help, if you are on the wrong side of them or don't have embankments at all. As the IDB alluded to earlier, part of that is not just the height of the embankments but about their resilience as well so that we don't see uncontrolled breaches and although it is little consolation at the moment if you are flooding, or have been impacted, or if you are not defended by them that has been something that has been an improvement from that investment as well. That investment did also turn in the latter years to maintenance and that's what we are continuing now at the EA.

We had about a guaranteed £2m just for the Broads area. We went back to Government and our national teams to secure that money after the contract ended, and this last year, the EA managed to prove that they needed to spend more money on the Broads and spent up to roughly £3.5m. There

is still more that the EA can do but that is just showing that we are putting effort into doing the maintenance we need to in the Broads.

With all this, it is about a balance. If we built the walls any higher, they would protect the land behind but it would exacerbate for those that are on the river side so it is a very delicate balance. Whatever we do can have an impact on the others.

Diane, Chairman of the River Thurne Tenants Association said that she has had a bungalow there for 34 years, and has never seen tide or flooding like this. Diane added that members are constantly worried that they cannot access their bungalows, some residents are disabled. She understands that sometimes you get a lot of water that you can't deal with. Diane asked for reassurance from the EA, that when they raise the flood or reinstate the barriers, they don't go above 0.8. David at the EA confirmed this and said that the EA would stick to that.

John from Sutton Parish Council (Chair) said that in 1993 a similar meeting to this one was held and very little got done. His question is regarding the sewage in various properties from Hickling down to Stalham through Sutton. The sewage starts in Hickling, passes through Sutton, moves on to Stalham and then goes to the treatment plant at Wayford where, in times of flood, it overflows into the wildfowl ponds and further on into the River Ant. Are the panel all satisfied that the installation and treatment of sewage in this area is adequate?

Duncan added that he has picked up issues in Eccles-on-Sea, Hoveton and Hickling. The drainage is not coping, and the infrastructure is not sufficient.

Paul said that the position of Anglian Water is that they are here to protect the environment. They do believe that the infrastructure is fit for purpose, and they invest in the infrastructure. They work with modelling with the EA and understand what growth they need to do and invest back in their network when required. The issue that they are seeing here, is that their system is being overwhelmed with groundwater etc getting into their system. The system is designed for their foul sewage network. Anglian Water is here this evening to work with the other agencies present to ensure that they get the right water out of the system and that the foul water continues to flow forward and is treated properly and appropriately. That is Anglian Water's commitment. Anglian Water is spending extensive amounts of money on infiltration and lining but it will not be perfect. They are seeing infiltration in many areas. They are seeing manholes being lifted and they are seeing people doing what they can to protect their properties and their businesses and that water is entering into the Anglian Water system causing it to overload. As far as Anglian Water are concerned, they don't want any pollution, any issues or environmental infractions for anyone else in this room.

Duncan added that £30m has been spent in trying to sort out the issues around the coast, putting in storage tanks in West Runton, Mundesley in the future and possibly Cromer. Hoveton is particularly bad with the issue of foul water and surface water being combined. What is being done to stop the constant issue of it being combined and ending up in the Broads. What monetary value is being spent and which areas are being targeted? Has an analysis been done to look at specific projects where this is really bad?

Grant from Anglian Water said that they have funding to protect the bathing waters around the coast. Legislation for inland rivers is different. Grant does not have the figures for where exactly they spend the money in the area, but they can look at that in the next business plan. Anglian Water have just announced their business plan for the next five years and if they get approval from the regulator £9b will be spend across the Anglian Water network. More than half of this is on environmental protection. Until those funding decisions are taken Anglian Water won't know where it will be spent.

Anglian Water will commit to getting back to Duncan on the investment model when they get approval.

Duncan asked if there was anything that he could do to ensure this money came in. Concentration has been on bathing waters and the issues affecting the Broads seem to have been forgotten.

Matthew Moore from Anglian Water added that they need to manage the root cause of the problem of keeping groundwater and surface water out of the foul water system. Anglian Water will work collaboratively with Anglian Water supplying working capital but it will depend on all agencies working together and all reaching into their pockets to solve the root cause problem. Matthew is unable to tell everyone what financial plans Anglian Water has for these areas but they can commit to working forward with proper investment plans and keeping groundwater and surface water out of Anglian Water assets.

A resident of Staithe Road said that there have been numerous occasions when had to get operatives out. They would like to see evidence that the Hickling pumping station is working correctly and is sized appropriately and asked if this evidence can be provided to Hickling Parish Council. They also asked if the EA would provide the test results for water quality in the Staithe where the raw sewage is running into it. The community needs to know that it is not a dangerous environment to live in and what enforcement action has the EA taken to instruct Anglian Water to put the tankers back on to alleviate the situation in the short term.

Anglian Water committed to share some of the data and is happy to come along to a Parish Council meeting to share the data. When Anglian Water put tankers in place, they are treating the symptom not the root cause of the issue. The Anglian Water system in Hickling is a foul water system only. Paul from Anglian Water will provide numbers of how many flooded /polluted properties they have registered in Hickling.

A further question asked was Is it more likely to happen more frequently due to climate change in which case we need to do something about it?

David from the EA said that he would never say that a single event is caused by climate change. However, this is exactly what he would expect to see if the climate changes are correct. What he is worried most about isn't so much the increased intensity of rain in the winter, it's the sea level rise. There isn't a lot to play with between the height of the banks in Potter Heigham and the sea.

Alby Cator, Ferry Marina, Horning said that he was disappointed by what he had heard this evening. This problem has been raised for over 30 years. He sees the problem as about lack of money and rain. Ministers and MPs cannot possibly be aware of every project expenditure in their ministerial constituencies, let alone quangos like the Broads Authority and the EA due to their lack of accountability. MPs and Ministers all need extra eyes and ears and Mr Cator suggested power to the people – enable, encourage and reward taxpayers to report financial wastage and inefficiencies of, in particular, unaccountable quangos like the Broads Authority and the EA.

Henry responded that on the whole local people know the answers and it is a great pity that local people are not better represented on some of these quangos.

Mr Wells, Hickling asked if the panel can provide a map or chart of Hickling showing all the drains, culverts, dykes and drainage systems colour coded with the agencies who are responsible for those systems.

Mark at Norfolk County Council said that a lot of the data is already on their website. He will collate the information and will provide it.

It was added that a map has been requested by Hickling Parish Council for the last two years. Mark was unaware of this and will look into it.

Mr Batley, an active member of the North Walsham and Dilham Canal Restoration Project said that they have problems speaking to people from the EA. The IDB has a plan, and it took them nine months to find the staff to create the plan.

Graham from the EA apologised that the North Walsham and Dilham Canal Restoration Project have been unable to contact the EA and this is not acceptable. Mr Batley will provide Graham with his details and Graham will look into it. The EA wants to listen to the local knowledge and experience which is why they have come here today. The EA have local staff who live in the environment they are trying to protect and the flood risk they are trying to reduce and they are passionate about it. The restoration project can either contact Graham direct or go through Duncan's office and he will connect them.

Another question raised was that on the 23rd January 2018 the gentleman received a letter from the East Anglia Area Director of the EA who was responding, he believes, to the Horstead sluice which was contributing to the flooding in Horning. In his reply, he stated that any actions at Horstead Mill would have an insignificant effect on the water levels at Horning. However, the National River Flow Archive, which is the official UK record, shows the catchment area of 313 square kilometres which feeds over the Horstead Mill and that flow has a main flow of 2,465 litres per second. To put that in context, that equates to 8,784,000 litres per hour which is enough to fill an Olympic-sized swimming pool every 16 and a half minutes. I put it to the EA that it is certainly not an insignificant amount.

Neither Graham or David from the EA know the details of this so are very happy to pick it up.

Mr Collins, Broads Society wanted to thank Mr Kemp for his explanation. We have climate change which isn't going anywhere, much heavier rainfall which is going to continue, and we have a very low gradient which isn't taking water away. Mr Collins asked if the 100 stream, which was mentioned, could be opened to pump more water out into the sea that way and secondly, if would it be possible to ease the Bure in the lower reaches Scarrow Gap across to Breydon Water perhaps in order to reduce the need for flow to go out through Great Yarmouth?

Matthew at the IDB responded by saying that they are pumping water uphill all the time and anything is possible. It would need some thought and design and the different authorities would need to come together to say it is a good idea.

Sutton Parish Council said that basically you have an issue which was addressed over 20 years ago, a Dutch engineering company was appointed to survey the Broads to establish what needs to be done to protect the Broads and the surrounding area. That survey and report cost the County Council, in conjunction with the Broads Authority, a lot of money but has since been buried – why?

Graham from the EA said that he does not know about the specifics of the report but if there is information out there which could be helpful they should, absolutely, be feeding it into the Broadland Futures. Sutton PC will send the information through to Duncan so that he can connect it to the EA.

Ms Single said that she feels terribly for the people here in these communities, she lives towards Cromer/Aylsham and their roads are all flooded with some people's systems are backing up. The elephant in the room seems to be climate change, everything has changed since 20-30 years ago.

Mr Rhodes owns a boat at Ferry Marina and has two questions. How do we stop the water coming out of the drains in Ferry Road and secondly in Burton on Trent two or three councils got together to fix the problems. They have the same sort of climate although it is not tidal. All he is hearing today is plans that will happen in 10-20 years and people saying that their systems are correct. The question is if Burton on Trent and the surrounding areas have sorted out the problems why is it that this problem hasn't been sorted yet and doesn't sound as though it will be sorted in the next two years?

Duncan said that Ferry Road is unadopted and is not the responsibility of Norfolk County Council but is sadly the responsibility of businesses and homeowners in that area. Mark from Norfolk County Council said that he has looked at the problem and it is complex with high water levels and an unadopted road and they are working with Anglian Water to find a solution. This is one of the priority sites but is down to funding – they had an option for a pump but encountered problems with funding and adoption in the area by stakeholders.

Mr Chapman a farmer who sits on the IDB and also heads up the Upper Thurne Farming Group for Flooding said that the EA are very quick to issue warrant cards for putting sandbags out and it's a shame they can't come out and deal with Anglian Water in the same manner. If the 100 stream was opened they would have to be careful with salinity going up the river the wrong way to Martham Broad and Hickling. Some of the problems are the riverbanks are not at the right height or maintained. The contract has not been completed and the reinstatement works that are lacking have not been completed either and therefore there are low spots. The £300,000 mentioned by Matthew will be clawed back through business rates, council taxes and drainage rates and everyone will be responsible for that. No contribution from EA or resilience funds for emergency works. All through the system of the flooding we have had very little interaction from the EA, except from Ollie on the ground, no other interaction whatsoever from EA.

Graham from the EA said that it comes back to the balance they spoke about earlier. Low spots on riverbank should have been done last year and are planned for this year. The EA are committed to doing that as soon as can this year. Graham will also look the process they take on but cautioned the need to maintain the balance. In respect of enforcement, the EA we will look to take enforcement action where can. They go out and collect evidence, have to make an assessment on what they can take enforcement action on. They have had significant fines handed down by judges where people have been breaking the law and have a list of outstanding enforcement action on various issues they need to take, but agreed absolutely that the EA needs to do more. Banks – Potter Heigham he expects to be there shortly.

Anglian Water said that they are proud of their tradition of self-reporting pollutions to the EA, 98% of the pollutions are self-reported back to the EA and Anglian Water are very transparent on where the issues are. Just because EA does not turn up on-site for category 3 issues doesn't mean that they don't go down in the Anglian Water numbers. Anglian Water is committed and is working with the EA and they understand that the EA has a regulatory role as well. Anglian Water are working as part of the Norfolk Strategic Flood Alliance and wants to see these action points in place. They don't want to see any foul matter coming out of their manholes and appreciate that they need to work with others.

Tunstead – a question for Paul at Anglian Water – they had only five days in December when could flush their toilet. How are they going to fix the problem, they had to move out for two weeks over Christmas as they could not be at home.

Anglian Water said that this was unacceptable. They are talking to residents and appreciate that this is not where they want to be. Anglian Water is here today so that they can work with the other agencies. It is a system issue and they need to understand the ownership of the system and there is no point in dealing with short-term action. We need to go after longer action. Anglian Water is not going to shy away from the issue. They need ministerial support to look at licences, and regulatory levels and look at how we deal with these in different ways. Anglian Water has a role but is not entirely accountable.

Mr Parkinson has a property in Horning which he has been unable to access for months. All he has heard tonight is failure, cleverly organised it so no one is responsible. Need to appoint someone to co-ordinate it all with authority and can be held accountable.

Duncan said this meeting was put together to deal with the problems. There was a meeting on Wednesday in Parliament which Henry attended. He added that powers ought to be put into the hands of Norfolk County Council so that we don't have the multi-agency issue of who takes responsibility being passed around. We need one accountable body. A clearly identified, responsible body. Henry added that they are trying to bring everyone to account, how this is achieved is probably with patience and persistence. Henry is happy to take responsibility, but they have legislation to deal with. There are problems with flooding around the county.

A Hickling resident said that it seems that lot of people here have personal experiences and issues and have been unable to speak to anyone. Things are going to get worse with climate change and it is important that Government appreciate this is a tangible effect on that. Everyone should be doing all can to reduce carbon footprint.

Duncan responded that this evening was about dealing with the stakeholders and get questions answered. Totally agree with you, this is going to continue to happen and that is a direct result of climate change. However it is not a political meeting about climate change, moreover how we can help residents now with immediate flooding issues and plan for the future as a result of the weather we are seeing.

Mr Tomkins from Horning owns marina and said that the unprecedented flooding event they are experiencing is awful. The river has been high for over 3 months. All of the issues which seem to have been raised tonight all seem to be based on the river being kept high. Why can't we have a multi-body brainstorming session to move water from one end of the river to the other?

Duncan said that he is happy to try and get people in, moving water is important.

Herring Bridge

A Horning riverside property resident said that their home flooded on the 2nd November and realises that we had the storm and high tides, wind and rain but feels the rising level outside his home which has made him move into temporary accommodation has a lot to do with manmade operations. Can someone please explain why low cost and building the bridge and dumping all that concrete in the river has got anything to do with the rising river level outside his house.

David from Norfolk County Council said that the bridge had opened yesterday. There is an extensive approval process for projects of the type. Extensive work goes into environmental assessment for projects of that scale and part of that is because it is impacting into the river, is a flood risk assessment process. All of that is published data which is part of the approval process. This project went through

a development consent order process which is a full 6-month examination by the planning expectorate. They developed the modelling which leads into the flood assessment process and that's working with the EA to make sure that they are content that what we have modelled is correct and what the modelling was showing was minimal impact to Breydon water. In effect, what they do is model the river without the bridge and then they put the bridge in to see what effect it has. The EA has highlighted the weather events we have been seeing and the extreme rainfall events. On top of that the EA has touched on the tide locking we have seen as well with the higher tides over the same period. It does not mean that it is linked to the bridge.

Mr Holmes, Broads Society said that on the 6th January, they went and surveyed the bridges at Great Yarmouth, which involved a sonar and visual representation of all three bridges. If you strip water from a channel with a soft bottom then the channel will automatically scour out, it is also visible at the Breydon and Herring bridges where we had a roughly 10ft drop in the riverbed as you go between those bridges. As you go between the new Herring bridge there is no noticeable difference in the bottom, no noticeable restriction to the surface of the water. The gap between Herring Bridge is 50m and between the Haven Bridge is less than 45m. If there is a restriction in the river it is the Haven Bridge which has been there for many years, not the new bridge.

Mr Goodchild, Goodchild Marine & Chairman of the Broads Navigation Committee said that he can only say what they have noticed. There has been one or two exceptionally high tides which are not unusual for this time of year but immediately the tide does turn it evaporates out of Breydon and Burgh Castle. He believes that the problem is that we have locking at the lower Bure and he can remember that many years ago the Bure park area was a wide and deep channel, it is now very narrow and is dry, even at high water, along the banks. He thinks that there is a lock problem in that area which is not allowing the water out into the Yare and believes that if the bridge was causing the bottle they would see this at Burgh Castle. He thinks that the panel needs to look at dredging and would support looking at other ways to get rid of some of the water into the Yare and maybe the 100 stream is something else that should be looked at.

Mr Richards from Waterways Holidays, represents around 75 holiday properties on the Broads, many of which have been flooded. Did the modelling for the bridges take into account the study done in 2016 by the Institute of Civil Engineers on multiple bridges which clearly identified that if you have two bridges that are located less than 215 times the width of the piers you will have an accumulative effect on the tidal locking. However, the cumulative effect only comes in when the water volume is over 13,000 cubic metres per second. Therefore, we would not have seen it for the first two years but this year the water level has risen by 1m at the bridge, according to the data provided by the EA. The question is, was that modelling based on the 2016 Civil Engineers report taken into account in the modelling for the bridge?

David from Norfolk County Council responded that he does not know for sure. The modelling which has been carried out is quite detailed modelling and would have picked up on the various bridges in the river corridor. It will replicate tidal events and extreme events as well. A lot of testing goes through the modelling. All of the flood risk assessment work is published on the NCC website, David will also provide a link.

Potter Heigham resident – when you did the survey and did the assimilation of what was likely to happen did you take into account the flow of the water rather than just what would happen with the tide coming in?

David Alfrey continued to answer that they would have taken into account both, but mainly dealt with the tidal impact and will have taken some effect from that and would have picked up the effect on Breydon water. Did not take into account the effect of River Fern, the River Bure and the River Ant.

Duncan said that this is a concern and asked David if there is a point there? David responded that he doesn't believe there is, they have been modelling and monitoring the sediment movement in the river and they are not seeing any direct impact of changing flows through there. People are more than entitled to look at the risk assessment work which has been undertaken. As we have also heard, those in the immediate vicinity of the bridge location are not seeing problems either. Touched on it earlier as to whether there is a need for further modelling in other locations and other impacts and it was touched on for the Broadland Futures work as well. I think it will be interesting to see what is carried forward under that as well. Full information is on the Norfolk County Council website.

David from the EA –said that if they were flooded on the 2nd November it was Storm Kieran. Two things to mention about the bridge and the tide – modelling has set parameters to it, so it doesn't waste taxpayers' money. Yare water flows both ways, comes in on the tide and out on the ebb, getting in past the ridge because on the 21st/22nd December we had one of the biggest surges we have seen on the Broads. We have been incredibly fortunate that it came on a low tide. There was a surge of over 1.5m to 2m in some places and that is what pushed all the up. This meant that the three top-end gauges on the rivers and they recorded their maximum heights all through this period on that time. Not only that but they were the highest heights recorded this century. David will write to the resident with the information.

Mr Knight has spent years valuing properties along the riverside. Not heard a great deal about the prospect of a relief channel at Scarrow Gap or reopening and pumping the 100 stream. If the people on the panel can give us a costing for the installation of a relief channel down at Scarrow Gap and using the 100 stream it would be very helpful.

Mr Packman from the Broads Authority said that there are two sorts of dredging – maintenance dredging which is done by Broads Authority to facilitate navigation. In 2019 they finished a three-year programme of dredging the Bure. Capital dredging is done by the EA, which is actually widening and deepening the rivers. The Broads Authority has been maintaining the lower Bure to facilitate navigation. In terms of Scarrow Gap, the EA would need to answer these questions and the difficulties but the issue that has been pointed out is the risk of salinity particularly in the north part of the Broads. In terms of digging or providing some sort of channel from Scarrow Gap through to Breydon, Mr Packman does not have any idea about that but the difficulty which might appear is that the northern side of Breydon Water is one of the most important sites for over-wintering birds in Britain and we would need to be careful about what we do at this site. He was really moved by the first lady who spoke from Hickling, it must be awful to have sewage coming up into your garden. This also has an adverse impact on the environment. Ultimately, we are facing climate change and we are going to have more severe events and more tide locking, more big events in the North Sea, and we are likely to have 20% more rainfall in the winter. Therefore, we need to change our infrastructure so our infrastructure can cope with it.

A Hickling Parish Council representative commented that they think the situation is going to get worse but don't get the feeling that the panel feel it is going to get worse. They don't see why they are unable to dredge Breydon water for example to let the sea in.

Duncan said that he recognises that it is going to get worse and it is his impression that the panel does also recognise this. Graham from the EA agreed that we are seeing it get worse now. Broadland Futures is looking at the impacts of climate change and all parties involved to look at what we need to

do differently. They are maintaining banks at the moment, but Broadland Futures needs to look at climate change. Broadlands Futures is happening now and is an ongoing piece of work, due to finish 2026/27. Mr Packman added that there are a lot of players in this. This summer we are expecting the EA modelling to give us some answers about what the options long-term for the protection of the Broads are. Duncan added that many of the issues tonight will feed into this work.

Graham from the EA added that they have the modelling to do now, once they have this it will indicate what they can do. Decisions will be made by councillors and elected officials on what they want to see done and how to fund it going forward.

A Hickling resident said that they have been unable to flush for 85 days. Anglian Water have said that it is due to surface water in drains and not their responsibility. Their bill from Anglian Water says sewage charge covers surface water, highway drainage etc.

Paul from Anglian Water said that the surface water charge is on all bill payments and is a shared charge across all billpayers. Paul will speak to the resident after the meeting about how they can support them.

Another Hickling resident said that they came here tonight as they wanted to hear what the panel had to say but also wanted to hear what you are going to do. When is the next meeting so you can all present what you have taken away from tonight and what you are going to improve?

Henry said that everyone says that there is nowhere for the water to go, the answer is to let it out by doing some dredging. The bottom of the Bure should be dredged and surely, they can start there.

Graham from the EA sad that the dredging discussion is difficult, dredging can be looked at but would have to stack up from a cost-benefit side, and they have to follow Treasury rules. They do look at using dredging where they can but don't want to make promises they can't keep. Henry asked if it can be modelled, and could this be picked up through the modelling being done this year? Graham said that it is very complicated, and they are looking at various options not just one thing. There is a list of things they will be looking at. David from the EA confirmed that the Broads are not going above 0.8m. They want to make it so EA reacts quicker. They are also looking at new trigger levels for when they start work so that they don't get too far behind. They will also make sure that every penny of the £3.4m that they have is not wasted. It is important that they work closely with the IDB, the EA doesn't want them pumping into the river if they can't shift the water.

A representative from the Upper Thurne Working Group said that the group meets twice a year for the management of Hickling Broad and the Thurne Valley. The EA sends an officer along occasionally, but they would like to see a senior officer attending regularly to update on what's going on. Graham from the EA said that they would be happy to do so.

Mr Adams said that the EA has mentioned cost benefit analysis – at the end of the day when get the schemes designed will the cost benefit scheme come in and squash them? And what basis is the cost benefit analysis based on.

Graham from the EA said that it is difficult to say if would squash a particular benefit based on how much it would cost and how many benefits. If it is really expensive and doesn't deliver huge amounts of benefits in the eyes of the Treasury it can be a huge problem.

From the meeting on Wednesday – Duncan reminded the panel of the investment of every £1 spent there is £12 of benefit on flooding. It is never a waste of tax payers money.

Mr Graves from Wayford said that for the last 4 years they have been flooded out and unable to use some of their land (livestock). They have had Matthew and various people out. A neighbour is also flooded. They are downstream from Hunsett Mill and water is leaking back and breaching over the banks. Could the banks be repaired? They have 185 acres with half of this underwater. They do not receive any compensation for this. It will take months for the grassland to recover.

A question for Anglian Water is that in 2012-2022 paid out £4.6bn in shareholder's profit. Should that not be reinvested in national water infrastructure, particularly in East Anglia and isn't it time we re-nationalised?

Paul from Anglian Water said that they have record levels of investment and have way more in reinvestment than they did in a nationalised state. They have a price review and are regulated by Ofwat. They will try and work out what they need to do to invest in the right area at the right time. Investing in £9m in the next period and if agreed hope to invest in the Norfolk area.

Duncan added that this year alone North Norfolk will see £30m investment in the next spending period. If people want to know about that they can write to Grant at Anglian Water and he will issue details of the exact amount of money that is being spent in this window on infrastructure improvements.

A representative from Martin boat building said that they run hire fleet and are unable to get boats through under the bridge since October. The lower Bure needs dredging, if only for maintenance and why aren't they dredging it?

John Packman responded that up to 2019, the BA pulled out 26,000 cubic metres of matter, and they dredge to 1.8m above mean high water and the Lower Bure meets that. They do regular hydrographic surveys which is displayed on their website. The Bure is well managed in terms of dredging for its navigation. The advice he has from colleagues in the EA is to have any significant impact on the levels of water seen at the top here, the amount of dredging you would have to do would be enormous. The real constraint is not by Bure Park but by Vauxhall Bridge, you have a narrow constriction there and then it is well dredged from there up. Water can't get through Vauxhall Bridge any quicker.

Barton Turf Parish Council said that they should get advice from the Dutch, Holland not under water and know about pumping and keeping saline out.

Graham from the EA said that they do link in with not just Dutch but others who do significant schemes around the country.

Mr Lumbar, a member of Broads Society and Ludham PC said that when growing up, the dredger went up and down the Ant all year without any issues, now dredging stopped years ago because of funding and he can't help thinking that there is some correlation between the height of the river and dredging.

David from the EA said that it is a tidal river, the tide will come in and replace it with salt water. They want to keep to that same water level as regulated by the tide. If they go into the big programme of dredging they would have to find cost benefit to do and they won't get it at the moment. They will keep looking at this and will do the modelling Henry and Graham spoke of. Dredging works in some places but not necessarily on tidal rivers.

Mr Foster, Stalham, said that his house has flooded internally 12 times in the last four years, nothing to do with the rivers or the tide, it's to do with groundwater, it's to do with the developments, it's to do with the inability of the IDB, Anglian Water and the Highways to take any responsibility for a dyke which is next to his house that Anglian Water cut off and then said it was nothing to do with them. In a way, we need another meeting as he has a completely different case. He added that, as someone who has had his house flooded that many times, every time your house is flooded internally Norfolk County Council is meant to produce a report, it is a requirement by the Government and this is nothing more than a 'chocolate teapot', it is completely and utterly useless. He has been visited by Norfolk County Council management people five or six times, each time they come they have no understanding of the situation, and they haven't provided him with any help at all.

Mark from Norfolk County Council said that in Sheringham we have been given the money directly and we can use it for local priorities. What we are showing in Sheringham is that we are getting the money directly to the County Council and we can use it more quickly. If we get more funding, we can hopefully use it in other areas as well. Mr Foster to speak to Mark directly about this case.

Ms Thurlow, owns Letheringsett Mill, a business which is on the River Glaven. Back on 3rd October 2023 the mill flooded for the first time in 111 years. They had 12.5 inches of water in the mill which flooded the tearoom, the downstairs floor, and into the sluice gates. There is more silt in the mill pond now than there is mill pond. They are recovering slowly but many other people along the Glaven were flooded as well. They have been in a tussle with the EA for many years and their argument is that the River Glaven is not being maintained. They have been speaking with the EA since the flood. They have had discussions with the EA who have said that they will not dredge the River Glaven. We understand that we don't want the River Glaven very deep as that will encourage more silt to come in from the farmers' fields, however, it does need to be dredged sympathetically. They now have a mill pond full of silt. They asked why the EA wouldn't work with them. The Glaven is only 15 miles long, they need to start dredging at the top and work their way down otherwise nothing is ever going to get done.

Duncan said that they have been having this conversation since October and there was an additional problem with windfarms running through the Glaven Valley causing land and silt run off. Conversations have been held and a lot of work has been done on this area.

Graham from the EA said that they can't say too much around legalities at the moment. They know of the significant pollution and it was a Category 1 incident. Work is going to be done around the property. The EA will work with Ms Thurlow and look at all options. Graham will talk to Ms Thurlow and work around what can do.

This was the final question and then the meeting closed.