River Kennet Flooding at Pingewood, January 2024

An already bad situation made worse

Report by Martin Salter and Del Shackleford, Reading and District Angling Association

www.RDAA.co.uk

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Background

Reading & District Angling Association (RDAA) is the largest provider of recreational fishing in the area and has over 1500 members, a headquarters at Farnham Flint lakes and two full-time fisheries officers led by Del Shackleford. On the Farnham Flint complex at Kirton's Farm Road, which is owned by the association, there is the main lake containing many highly prized specimen fish and three smaller, but separate lakes – Brownlee, Callow's and Willmott's. They all have different fish stocks and Callow's is a designated junior coaching pool with purpose built platforms for both disabled access and coaching. Also on site is the club HQ, café, equipment storage unit and a classroom.

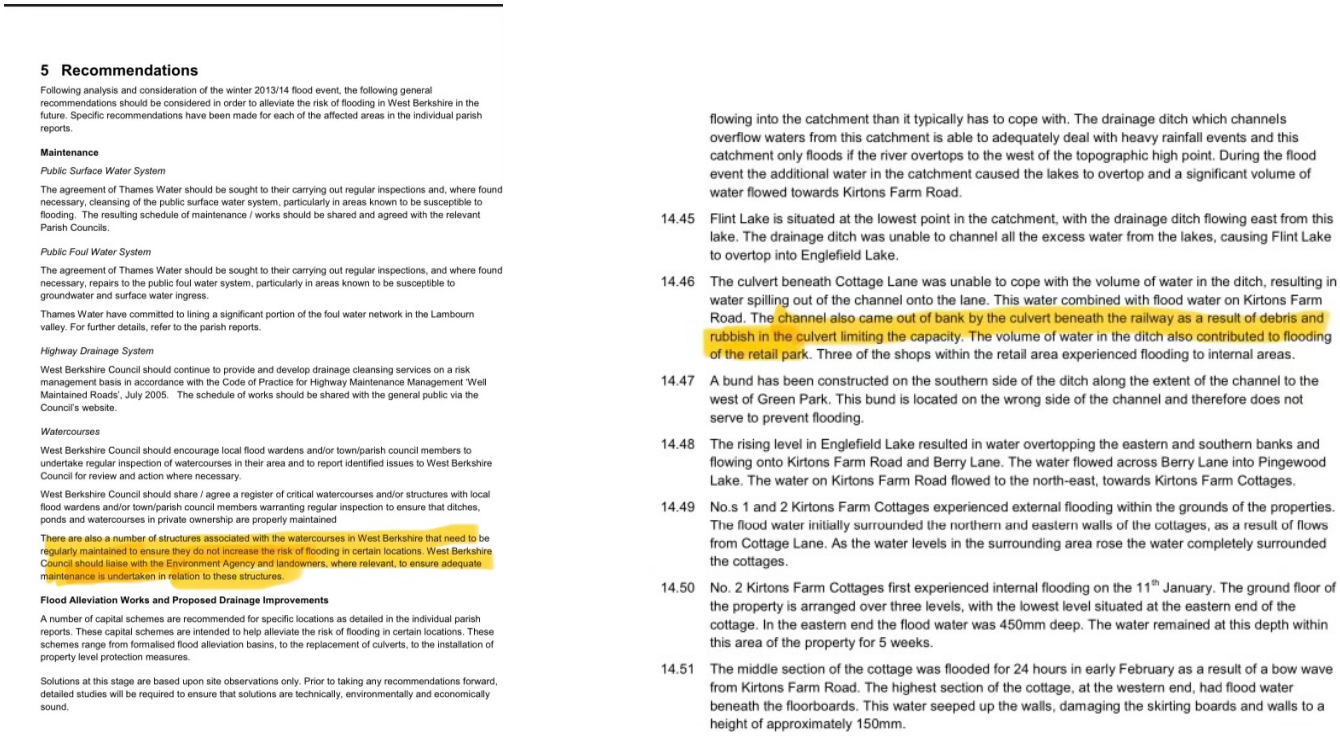
Adjacent to Farnham Flint is Englefield Lagoon to the south and the four smaller Cottage Lane lakes to the north. On the other side of Berry's Lane is Pingewood Lagoon which is also owned by RDAA. The other large lakes to the north-east and south-west are privately owned.

There are two sets of residential properties in Kirton's Farm Road adjacent to both Farnham Flint and Pingewood Lagoon and a number of other businesses. All are in the West Berkshire Council (WBC) boundaries.

The area is part of the functional floodplain and is susceptible to flooding as seen in 2013/14 and previously. The water flows down the Kennet catchment from west to east and will traverse through the lakes and surrounding ditches at times of high water. The lowest point in the system is Willmott's pool from

which there is a functioning outlet to the culvert running under Cottage Lane and up to the railway embankment. This is maintained and kept clear by RDAA. The Basingstoke to Reading railway line forms a barrier to the east of the area and has been identified in the WBC Flood Review of 2014 as a potential source of flooding which is caused if water cannot escape into the flood meadows to the east of the tracks and on down to the Island Road flood relief channel in Reading, which drains into the Kennet at Fobney.

However, there are number of culverts running under the railway track which are designed to carry extra water at times of flood and prevent water piling up to the west and inundating the lakes and the properties referred to above. Obviously it is vitally important that these culverts are maintained and kept clear. This was referred to both in the 2014 review and in the 2019 planning application for Green Park station which noted that this particular culvert remained blocked.



5 Recommendations

Following analysis and consideration of the winter 2013/14 flood event, the following general recommendations should be considered in order to alleviate the risk of flooding in West Berkshire in the future. Specific recommendations have been made for each of the affected areas in the individual parish reports.

Maintenance

Public Surface Water System

The agreement of Thames Water should be sought to their carrying out regular inspections and, where found necessary, cleansing of the public surface water system, particularly in areas known to be susceptible to flooding. The resulting schedule of maintenance / works should be shared and agreed with the relevant Parish Councils.

Public Foul Water System

The agreement of Thames Water should be sought to their carrying out regular inspections, and where found necessary, repairs to the public foul water system, particularly in areas known to be susceptible to groundwater and surface water ingress.

Thames Water have committed to lining a significant portion of the foul water network in the Lambourn valley. For further details, refer to the parish reports.

Highway Drainage System

West Berkshire Council should continue to provide and develop drainage cleansing services on a risk management basis in accordance with the Code of Practice for Highway Maintenance Management 'Well Maintained Roads', July 2005. The schedule of works should be shared with the general public via the Council's website.

Watercourses

West Berkshire Council should encourage local flood wardens and/or town/parish council members to undertake regular inspection of watercourses in their area and to report identified issues to West Berkshire Council for review and action where necessary.

West Berkshire Council should share / agree a register of critical watercourses and/or structures with local flood wardens and/or town/parish council members warranting regular inspection to ensure that ditches, ponds and watercourses in private ownership are properly maintained

There are also a number of structures associated with the watercourses in West Berkshire that need to be regularly maintained to ensure they do not increase the risk of flooding in certain locations. West Berkshire Council should liaise with the Environment Agency and landowners, where relevant, to ensure adequate maintenance is undertaken in relation to these structures.

Flood Alleviation Works and Proposed Drainage Improvements

A number of capital schemes are recommended for specific locations as detailed in the individual parish reports. These capital schemes are intended to help alleviate the risk of flooding in certain locations. These schemes range from formalised flood alleviation basins, to the replacement of culverts, to the installation of property level protection measures.

Solutions at this stage are based upon site observations only. Prior to taking any recommendations forward, detailed studies will be required to ensure that solutions are technically, environmentally and economically sound.

flowing into the catchment than it typically has to cope with. The drainage ditch which channels overflow waters from this catchment is able to adequately deal with heavy rainfall events and this catchment only floods if the river overtops to the west of the topographic high point. During the flood event the additional water in the catchment caused the lakes to overtop and a significant volume of water flowed towards Kirtons Farm Road.

14.45 Flint Lake is situated at the lowest point in the catchment, with the drainage ditch flowing east from this lake. The drainage ditch was unable to channel all the excess water from the lakes, causing Flint Lake to overtop into Englefield Lake.

14.46 The culvert beneath Cottage Lane was unable to cope with the volume of water in the ditch, resulting in water spilling out of the channel onto the lane. This water combined with flood water on Kirtons Farm Road. The channel also came out of bank by the culvert beneath the railway as a result of debris and rubbish in the culvert limiting the capacity. The volume of water in the ditch also contributed to flooding of the retail park. Three of the shops within the retail area experienced flooding to internal areas.

14.47 A bund has been constructed on the southern side of the ditch along the extent of the channel to the west of Green Park. This bund is located on the wrong side of the channel and therefore does not serve to prevent flooding.

14.48 The rising level in Englefield Lake resulted in water overtopping the eastern and southern banks and flowing onto Kirtons Farm Road and Berry Lane. The water flowed across Berry Lane into Pingewood Lake. The water on Kirtons Farm Road flowed to the north-east, towards Kirtons Farm Cottages.

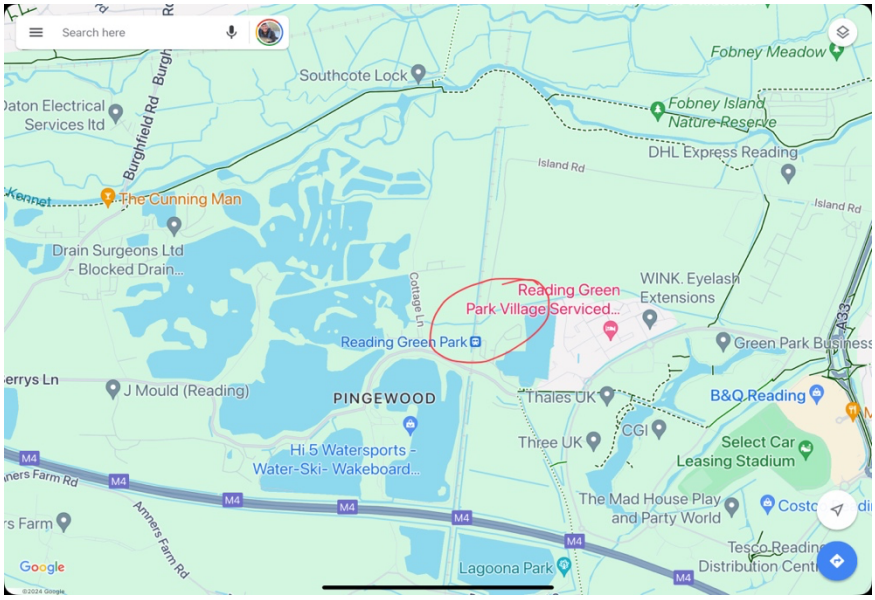
14.49 No.s 1 and 2 Kirtons Farm Cottages experienced external flooding within the grounds of the properties. The flood water initially surrounded the northern and eastern walls of the cottages, as a result of flows from Cottage Lane. As the water levels in the surrounding area rose the water completely surrounded the cottages.

14.50 No. 2 Kirtons Farm Cottages first experienced internal flooding on the 11th January. The ground floor of the property is arranged over three levels, with the lowest level situated at the eastern end of the cottage. In the eastern end the flood water was 450mm deep. The water remained at this depth within this area of the property for 5 weeks.

14.51 The middle section of the cottage was flooded for 24 hours in early February as a result of a bow wave from Kirtons Farm Road. The highest section of the cottage, at the western end, had flood water beneath the floorboards. This water seeped up the walls, damaging the skirting boards and walls to a height of approximately 150mm.

1) Extracts from the 2014 West Berks Flood Review highlighting flooding problems caused in Kirton's Farm Road by the blocked culvert.

Despite their importance being publicly referenced in both the 2014 WBC Flood Review and in the 2019 planning application for the new £20m Green Park Station, the culvert marked on the map below has not been kept clear by Network Rail. On the lead-up to the flood event, Del Shackleford noted that two of the three pipes were blocked and that this posed a serious and urgent flood risk. He asked for them to be cleared as a matter of urgency. This was not done.



2) Map of the area with the culvert and flood relief channel marked and circled

Contact with West Berkshire Council, Environment Agency and Network Rail

On Thursday January 4th, we immediately notified both Network Rail (via GWR) and WBC, in person and in writing, warning that if the culvert was not cleared then flooding would occur within 48 hours. We also raised the issue with the EA who referred us back to WBC as it was not a 'main river' issue.

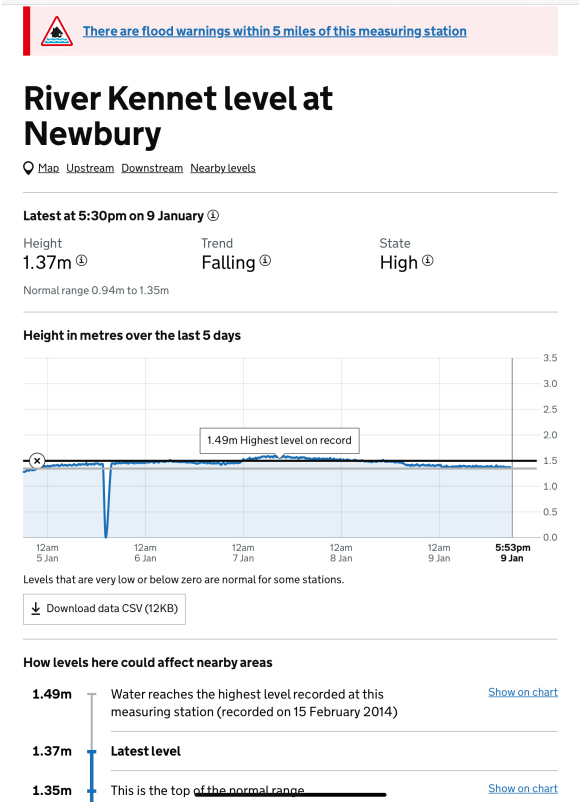
Network Rail failed to respond at all, and on Friday 5th WBC Environment Director Jon Winstanley, disputed whether the culvert was blocked and wrongly claimed that:

"although water levels were generally high in the Kirton's Farm area they are nowhere near the levels reached in 2014. From observations on site I am not convinced there is a blocked culvert."

This was despite the fact that the Environment Agency had issued a Red flood warning for the area, stating:

“Property flooding is expected. River levels are rising on the River Kennet following recent heavy rainfall. ***Therefore, flooding of property and roads is expected this evening, 05/01/2024.*** *Flooding may affect properties closest to the river, particularly in the Burghfield area. Further scattered showers are forecast overnight and into tomorrow. We expect river levels to begin to stabilise but to remain high over the coming days as water moves downstream through the catchment.* ***Note that levels are currently higher than seen in February 2014.*** *We are monitoring the situation.”*

As the EA gauge reading on the chart below illustrates the flood predictions were entirely accurate with record water levels in the Kennet at Newbury registering by the morning of Sunday January 7th at 1.59 metres compared with the previous record high of 1.49 in 2014.



3) EA water level gauge showing record levels on the Kennet at Newbury by Jan 7th

West Berkshire Council quite clearly failed to take the flood warnings seriously, refusing even to accept the Environment Agency's own predictions – which correctly forecast flood levels in the Kennet catchment in excess of the 2014 record.

Joint Emergency Planning Unit

More helpful was the correspondence from Carolyn Richardson of the Joint Emergency Planning Unit (covering Bracknell, Wokingham and WBC) which did confirm that they had reported the issue to Network Rail on the 4th Jan (1704) following the RDAA report that afternoon and that they also "chased yesterday morning (5/1/24 0856) for an update but sadly not received one."

However, it seemed that this was done merely by sending an email enquiry to Network Rail rather than through any person to person high level contact.

The Joint Emergency Planning Unit and WBC were informed by RDAA on Friday afternoon (Jan 5th) that – "the water is now starting to overtop our lakes, they rose 3 inches over night and an inch between 8am this morning and 2pm this afternoon. If this continues, flooding of residential properties will be imminent and totally avoidable."

On Sunday, by which time the whole area was flooded, the Joint Emergency Planning Unit forwarded on the following response from Network Rail, which bizarrely tried to claim that following an on site inspection they had concluded that the water was at the same level either side of the railway track meaning that the culvert was not blocked. This is despite physical and pictorial evidence to the contrary. They stated:

We have heard back from Network Rail and they have confirmed that they visited Reading Green Park Station culvert BKE 31/8C 38m 72ch. The water level of the inlet and the outlet of the culvert is under water and approximately the same height on both sides, which they consider that the culvert is not the

problem if there was a problem with the culvert the water level on the downstream side would be lower than the upstream side.

We replied with pictures and video evidence showing clearly the flood water backing up at a higher level to the west of the railway track. (See Flooding section below).

4) Drone footage taken on January 6th showing the difference in flooding west and east of the railway due to the blocked culvert

Pingewood Flooding – causes and impacts

In an attempt to get both WBC and Network Rail to take the flood risk seriously RDAA contacted BBC South who carried a local radio interview with Del Shackleford on Friday morning and again on their national website on Saturday morning. However, no action was forthcoming.

By the evening of Friday 5th it was clear that we were now in a 2014 situation, with river levels rising quickly in the whole of the Kennet catchment and multiple breaches occurring between Newbury and Reading. With water unable to properly escape to the east of the railway line it began to overtop and fill up in Cottage Lane, putting the electricity sub -station to the north at such imminent risk that the emergency services were deployed. As predicted, the RDAA lakes were soon joined together. Our HQ and classroom facilities were overwhelmed, and the water

began to flood back west and into Kirton's Farm Road and north into the electricity sub-station in Cottage Lane. By Saturday morning the residential properties were flooded out and Jon Winstanley was send the photographs of their flooded homes. No reply was received.

In order to demonstrate the effect of the blocked culvert, RDAA took drone footage of the flooded area on Saturday which clearly shows the flooding caused by the huge volume of water backed up to the west of the railway tracks, while the water meadows to the east remain completely clear of any significant surface water. Further evidence was supplied to the Joint Emergency Planning Unit comprising three videos and photographs from Monday (Jan 8th) which clearly illustrated:

- that the water is far higher on the west than the east of the railway track
- that the culvert is blocked with little or no flow through it
- that the backed up water on the west is now flowing south and flooding the properties in Kirton's Farm Road
- that the water has also flowed north out of the blocked culvert flooding the electricity sub-station.

5) Floodwater backing up to the west of the railway track causing flooding to the electricity sub-station to the north and the cottages in Kirton's Farm Lane to the south as well as to the RDAA lakes and property.

At the time of writing (Wednesday January 10th), the area remains flooded. The floodwater has caused substantial damage to a number of residential properties in Kirton's Farm Road, put an electricity sub-station serving 40,000 people in South Reading at risk and has done significant damage to the RDAA fisheries and accompanying infrastructure.

6) The blocked culvert under Green Park station caused increased and avoidable flooding, damage and hardship to people and premises west of the railway tracks

Conclusions and Questions

We have demonstrated beyond doubt that the failure to ensure an adequate escape route for the floodwaters arriving in the Pingewood area on Friday January 5th contributed to the excessive flooding and damage experienced by local people, businesses and organisations such as ourselves. Both Network Rail and WBC were notified the day before of the impending flood risk and either failed to respond with any urgency or refused to

recognise that there was a problem. They have both contributed to making a bad situation worse than it needed to be.

Network Rail have clearly been negligent in failing to ensure that the culvert was kept clear with only one of three pipes able to convey water to the east of their railway tracks. This is despite the recommendations of the 2014 Flood Review and the problem being identified during the planning process in 2019 for the new £20m Green Park Station.

As result of the recent, excessive flooding of the lakes, residential properties and other premises in Pingewood area, serious questions have to be asked regarding the lack of action by West Berkshire Council in their role as the Lead Local Flood Authority (LLFA) for the area. In particular:

- Did WBC ever prepare a Surface Water Management Plan for this flood prone area as required under legislation. And if so, why did it not include provision for clearing the railway culvert to provide an exit route for flood water building up on the west side of the railway track?

- More generally, on what basis did WBC assess the local flood risk and set out objectives for managing local flooding?

- Why did WBC not consider using the powers available to take action itself to prevent flooding of the highway?

- Correspondence received by RDAA indicates that WBC did not consider there to be a significant flood risk. This was demonstrated to be palpably untrue so we must ask on what basis was this assessment made?

In addition to the damage to the residential properties RDAA has suffered significant damage to its fisheries and accompanying infrastructure. We will be joining with our neighbours to demand answers to our questions and pursue those responsible for failing to act to prevent the avoidable excessive flooding that we experienced.

We welcome the commitment to undertake a formal investigation when the levels have receded as per S19 of

the Flood & Water Management Act 2010 to try to establish what, if anything can be done in the future to mitigate the flood risk in the area. RDAA will make this and other evidence available to that investigation.

We are sending a copy of this assessment to both Network Rail and West Berkshire Council for their comments before taking matters further.

Martin Salter and Del Shackleford, Reading & District Angling Association

10th January 2024

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Appendix A

Powers and Duties of Local Authorities

West Berkshire Council, as the Lead Local Flood Authority (LLFA), is responsible for taking the lead on managing flood risk from local sources. This includes surface water, groundwater and ordinary watercourses, including where an interaction between various sources results in river flooding. Under the Flood and Water Management Act 2010 the Council, as LLFA, has a duty to investigate and publish reports on flood events (to the extent it considers necessary) and to compile and maintain a register of structures and features that have a significant effect on flood risk. It also has responsibility for consenting on third party works to ordinary watercourses.

The Council also has other related roles in planning and development control, public health, emergency planning and highway drainage.

West Berkshire Council is also the Highway Authority and has the following powers and duties:

- maintain highways, including ensuring that highway drainage systems are clear and that blockages on the highway are cleared;
- deliver works that they consider necessary to protect the highway from flooding, either on the highway itself or on land which has been acquired by the Highway Authority in the exercising of highway acquisition powers; and
- divert parts of watercourses or carry out any other works on any form of watercourse if it is necessary for the construction, improvement or alteration of the highway or provides a new means of access to any premises from the highway

Flood and Water Management Act 2010

The 2010 Flood and Water Management Act followed the Pitt Review of 2008 which sought to learn the lessons from the 2007

floods. Among its recommendations was the adoption of Surface Water Management Plans (SWMP) by Local Authorities where the 'risk from surface water flooding was high'. Accompanying the new duties and responsibilities placed by the Act on local authorities was the publication of SWMP guidance to local authorities to 'assist them as they co-ordinate and lead local flood risk management activities'. It states:

A Surface Water Management Plan (SWMP) is a plan which outlines the preferred surface water management strategy in a given location. In this context surface water flooding describes flooding from sewers, drains, groundwater, and runoff from land, small water courses and ditches that occurs as a result of heavy rainfall.

The Act requires the LLFA, in their local flood risk management strategy to:

- assess the local flood risk
- set out objectives for managing local flooding
- list the costs and benefits of measures proposed to meet these objectives, and how the measures will be paid for.

Appendix B

Correspondence with WBC and Network Rail

From: del shackleford <delshack@yahoo.co.uk>

Date: 4 January 2024 at 14:47:16 GMT

To: tom.butler@gwr.com, Martin Salter <martinreadingwest@googlemail.com>

Subject: Culvert under green park station

Afternoon Tom,

Please find attached pictures. I've included an aerial photo of the location.

The culvert which runs beneath the track is blocked and is backing water up to the west of the station.

At the current rate, the local householders could very well be flooded out within the next 48hrs.

Regards

Del Shackleford

Reading & District Angling Association Fisheries officer

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Thursday January 4th

From: Martin Salter

To: Katharine Makant

Service Lead – Planning and Economy (Chief Planning Officer)

West Berkshire Council Market Street Newbury RG14 5L

Hi Katherine

I'm writing further to my call just now to Ruth in your customer services team. As you can see from the email below from Del Shackleford, Fisheries Manager for Reading & District AA, we have been in urgent contact with GWR regarding an impending flooding situation both out our lakes at Pingewood and a number of residential properties in Kirton's Farm Lane and the wider Burghfield area.

This is caused by the failure of GWR / Network Rail to keep the culvert clear that runs under the railway line adjacent to Green Park station. All the surplus water flowing east and then north into the lower Kennet floodplain cannot escape if this culvert remains blocked. They have notified of the importance of keeping this clear by ourselves several times over recent years but it remains blocked and the water is now rising at an alarming rate. Another foot and peoples homes could well be flooded and with tonight's heavy rain this could occur in the next 24 hours.

I would be grateful if you could apply some pressure to GWR and Network Rail by asking when they propose to clear this blockage.

I've attached a map showing the location

Please call Del on XXXXXX if you need more information. He's in touch with the residents who have been alerted to the danger to their homes.

Many thanks

Martin

Martin Salter

President RDAA

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Friday January 5th

From: Martin Salter

To: Katharine Makant

Service Lead – Planning and Economy (Chief Planning Officer)

West Berkshire Council Market Street Newbury RG14 5L

Hi Katharine

Further to our correspondence yesterday I would be grateful if you could ask your colleagues in Emergency Planning to get in touch with either myself or Del to confirm if they have had any response from GWR or Network Rail. Radio Berkshire covered the story this morning so we are hoping that some action might now be taken to clear the culvert and permit the flood waters to escape.

We've been in touch with the EA who rather unhelpfully informed us that because this was not a 'main river 'we should contact yourselves as the relevant local authority.

You might be interested to hear that this issue was identified in the WBC 2014 Flood Investigation Report but no action seems to have followed. I've pulled out the relevant pages below which commits WBC to liaising with relevant landowners in matters relating to increased flood risk.

All the best

Martin

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Friday January 5th

From: Martin Salter

To: Jon Winstanley Service Director – Environment

West Berkshire Council, Council Offices,

Market Street, Newbury,

Jon

It would be good to get some feedback on what action, if any, is being taken to unblock this culvert and reduce the risk of flooding to properties in Kirton's Farm Lane.

I'm afraid I do also have to ask what action has been taken by WBC in respect of your 2014 Flood Investigation Report which identified this culvert as a flood risk source if it is not kept clear?

The report is makes plain that WBC has a key role to play in this regard:

"West Berkshire Council, as the Lead Local Flood Authority (LLFA), is responsible for taking the lead on managing flood risk from local sources. This includes surface water, groundwater and ordinary watercourses, including where an interaction between various sources results in river flooding. Under the Flood and Water Management Act 2010 the Council, as LLFA, has a duty to investigate and publish reports on flood events (to the extent it considers necessary) and to compile and maintain a register of structures and features that have a significant effect on flood risk. It also has responsibility for consenting on third party works to ordinary watercourses."

So it would be good to hear what action is proposed and whether the culvert appears on your "register of structures and features that have a significant effect on flood risk"

Many thanks

Martin

Martin Salter

President RDAA

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5th Jan 2024, from Jon Winstanley at @westberks.gov.uk>

Martin,

Thank you for your email. The main issue we found in 2014 was a breach in the river kennet which was inundating the lakes around the Pinchington area. Once breach was filled (by the army at our request) the waters receded. I was on site this morning and the work undertaken in 2014 still holds and although water levels were generally high in the Kirtons Farm area they are nowhere near the levels reached in 2014. From observations on site I am not convinced there is a blocked culvert, however we will continue to monitor.

Best regards

Jon

Jon Winstanley Service Director – Environment

* **Environment Department, Place Directorate, West Berkshire Council, Council Offices, Market Street, Newbury**

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5th Jan 2024, to Jon Winstanley at @westberks.gov.uk>

Afternoon Jon,

I think somewhere along the way you have misunderstood. The current situation has nothing to do with the bankside of the Kennet, as in 2012/13.

The current issue is because the recommendation to have this culvert at Green Pack cleared has never happened. The current groundwater inundation is such that the limited capacity of the culvert (2 out of the 3 pipes are blocked) to carry water away down the system is causing water to 'backup'.

In fact, if you when you visited the area had paid attention to the ditch west of the culvert you would have seen the water flowing in the opposite direction. Or looked at the difference between the water levels between the westside and eastside, the blockage is obvious.

It's a shame you didn't call me , as I've been there all day, but must of missed you somehow.

The water is now starting to overtop our lakes, they rose 3 inches over night and an inch between 8am this morning and 2pm this afternoon.

If this continues, flooding of residential properties will be imminent and totally avoidable.

Regards

Del Shackleford

Reading & District Angling Association Fisheries officer

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5th Jan 2024, to Jon Winstanley at @westberks.gov.uk>

Evening Jon

Further to your email and to Del's response I'm afraid you couldn't be more wrong about the water levels being "nowhere near" as high as 2014. The EA's latest Red flood warning for the area states:

" Property flooding is expected. River levels are rising on the River Kennet following recent heavy rainfall. **Therefore, flooding of property and roads**

is expected this evening, 05/01/2024. Flooding may affect properties closest to the river, particularly in the Burghfield area. Further scattered showers are forecast overnight and into tomorrow. We expect river levels to begin to stabilise but to remain high over the coming days as water moves downstream through the catchment. **Note that levels are currently higher than seen in February 2014.** We are monitoring the situation. Activate any property flood protection products such as flood barriers. Go to the 'River and Sea levels in England' webpage for current river levels. Be aware of flooded roads, do not drive through floodwater. This message will be updated tomorrow morning, 06/01/2024, or as the situation changes.

Flood warning area: Properties closest to the River Kennet between Shenfield Mill, Theale and Reading town centre including, Burghfield Lock, Burghfield Bridge, Bear Wharf and Kings Road areas and those closest to the Holy Brook in Calcot, Southcote and Coley areas."

Rather than wasting time arguing about whether or not the culvert identified in your own 2014 report is or isn't blocked, when demonstrably it is, we had hoped that you would be taking action as the responsible authority to get the owners to clear it. There is every possibility with the current rise in river levels on the lower Kennet, coupled with the failure to ensure clear access for accumulated flood water, that residential properties will be at severe risk of flooding tomorrow. A situation that is entirely avoidable as we have demonstrated.

We will be in touch again in the morning

Regards

Martin

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On 7 Jan 2024, at 20:34, Emergency Planning <EmergencyPlanning@westberks.gov.uk> wrote:

Good Evening

Apologies for the delay in getting back to you.

We have heard back from Network Rail and they have confirmed that they visited Reading Green Park Station culvert BKE 31/8C 38m 72ch. The water level of the inlet and the outlet of the culvert is under water and approximately the same height on both sides, which they consider that the culvert is not the problem if there was a problem with the culvert the water level on the downstream side would be lower than the upstream side. As the water would not be able to pass the collapse/obstruction. The problem is further downstream which is causing the water to back up to the culvert and flood the upstream side. They also checked downstream from the culvert outfall and found another head wall that was overwhelmed by the flow of water as well, the water was going around the headwall due to the amount of water, also there was another inlet into the stream from a nearby lake. They

therefore concluded at the time that the flooding was due to the amount of rain and the sheer volume of water resulting in the system not being able to cope.

We will be undertaking an investigation when the levels have receded as per our policies and as per S19 of the Flood & Water Management Act 2010 to try to establish what, if anything can be done in the future to mitigate the flood risk in the area. As a result I am sure the Environment Service who lead on these investigations will be in touch in the future in relation to this.

Kind Regards

Carolyn

Carolyn Richardson
Service Manager – Joint Emergency Planning Unit