

## **DRAFT**

### **Report on the Storm Dennis flooding Feb 16<sup>th</sup> 2020.**

This was the most significant flood since the July 2001 flood. Our fields and land have been sodden for months, and the flooding episode was a result of rainfall on already sodden fields. Interestingly, according to our Flood Warden, we have had 860mm in the last 9 months. The previous 12 to that we had 407.1mm.

The Parish Council are considering this report on the events of the day for three reasons:

- to be sure in the future people know what was done, and what can help alleviate the problems.
- to work out whether anything can be done to reduce the likelihood of future flooding
- to help in putting together our responses to Planning Applications for building within the Parish.

If anyone has a report to add please let the PC Clerk or Chair know. If anyone has photos of videos please send them to us.

Overall, the biggest learning is just how we need to be able to fend for ourselves: When the floods come there are no experts waiting for the call. If anyone is going to stop the water getting into our homes its likely to be us residents, ourselves. So, we need to get organized in advance and have a good knowledge of how the water flows within our Parish.

We do have stores of Sandbags and there is some local knowledge from previous floods, but we do need to be sure we learn as much as we can from this incident. This report is designed to help us on the next stage of that learning.

### **Actions on the Day**

The main flooding sites today were:

#### **1. Belvoir Road.**

Water came off the Public Open Space in front of Barratt's Wickets estate into the dyke running down the East side of Belvoir road. This dyke was not flowing sufficiently and water over-powered the gutter drains and ran into the gardens on both sides of Belvoir Road.





### **Belvoir Road Actions**

**a.** Road Closure

We closed the road (first unofficially using our own cars, later using police signs) to prevent the cars causing waves of water to flow into the gardens.

**b.** Sandbags

Some say sandbags do not work. They did today. They were perhaps at their best when lining the road, preventing the water from coming down into the gardens, and along the white lines in the middle of Belvoir which prevented the water flowing from the east side to the west side of the road.

**c.** Clearing the Gutter Drains

We prodded and cleared out the gutter drains, using brooms, and long metal poles, to create as much flow as possible. It may have a small effect on the day, but in future we should get LCC Highways to do this whenever we think a flood is likely.

**d.** Opened up the main drain in the centre of Belvoir Road

There is an access chamber in the middle of the road at the junction with Belvoir Ave, and another outside #16 and #18. These drains were able to take much more water away than the gutter drains so we brushed as much water as possible into this main drain. This made the most difference on the day.

**e.** Photos – we took lots and asked residents to write down what they thought had happened and the best responses.

**f.** Ask for power cleaning of the gutter drains.

We assumed the gutter drains were blocked underneath and called LCC Highways to come and clean these out – they promised to come the following day.

## **2. Winterbeck Bank Collapse**

The bank of the Winterbeck has collapsed between Belvoir Rd and Barkestone Lane and is starting to eat into the footpath.



### 3. Nottingham Road (Old Railway Bridge)

Three houses along the short lane that runs down to the Old West End Railway Station to the North of the old railway bridge were badly affected by water that seemed to be coming directly from the inundated field to the West and the fields behind.

The Fire Service came to the Parish to rescue the driver of the white van stuck in the water at the Duck-Crossing outside St Mary's then detoured around to these houses and started to pump out as much water as they could, but (and from their own mouths) they were facing an impossible task.

### 4. St Mary's Church – Duck Crossing.

Heavy flooding. No danger to houses. One driver got stuck – white van. Fire Brigade got him out using their inflatable boat. Lots of debris in the road which needed clearing after the water subsided.



**5. 70 Bowbridge Gardens**

Water close to the home in the back garden. Sand bags deployed to keep water out of home and the neighbouring house.

**6. The Church Bridge and Forge Tea Rooms, Muston**

The river water was running through the churchyard, up, around and over the bridge and into the gardens of the Forge and the house immediately across the river from the Forge. No ingress into any homes. But the Forge Tea Rooms have made modifications to help ensure water does not come in: they have hung the doors to open outwards, and have build flood boards in front of each of the external doors. Would this idea be something that other residents could consider?



**7. Flooding on first road into Muston**

There has been a 'ford' here on and off for a number of weeks.

**8. Car crashed into Dyke on Grantham road.**

Car travelling in east direction on Grantham Road, we think it must have hit the standing water at the entrance to the car-boot field, and lost control hit the Bottesford Sign and ended up in the ditch.

Action: none on the day – need to get LCC Highways to fix the Bottesford sign. What can be done to stop the flooding at the entrance to the car-boot field?



**Haw can the authorities help on a day like this?**

Judging from this experience this is what can be helpful from each of the main authorities:

**LCC**

LCC are the authority responsible for flooding in the area. This email exchange suggests that they do not have plans to look into the causes of the flooding events

of 16<sup>th</sup> Feb 2020:

To LCC, as the Lead Local Flood Authority. 25<sup>th</sup> Feb 2020

My name is Bob Bayman and I am the Chair of the Parish Council in Bottesford.

Could you tell me please whether you are planning a report on the flooding that took place in Bottesford on Sunday Feb 16th 2020.

Can you tell how the report will be put together, who is responsible for writing it and when it will be available to see.

Many thanks

Bob Bayman

From LCC. 25<sup>th</sup> Feb 2020

Hi Bob,

Thank you for your email.

As it stands, we have not received any official reports of properties and/or critical infrastructure flooding in Bottesford as a result of Storm Dennis. Anecdotally we have received information on 2 properties which may have flooded on Nottingham Road, however we have sent letters to the residents to confirm this.

If you have any information of additional flooding, or further information regarding Nottingham Road flooding please do not hesitate to contact me.

Kindest Regards,

Amy Jackson BSc (Hons)

Flood Enforcement Officer

Infrastructure Planning

Environment & Transport Department

Leicestershire County Council

It is worth noting this contribution from our own Flood Warden, Peter Sheardown, shows the importance of local knowledge and asking the LCC to put more focus on managing the flood risk in the Parish:

*Bob,*

*When I ring the Croft Control Room 01163054556 ( Duty officer 07860569137) , you report a problem & you pray something will be done. A team may eventually appear & you never get a report that anything has been done. I have sent you an email from Herbert Daybell which mentions in July 2018 that I had tried before to get something done at the gulleys & drains. I have even been on a course at Croft to educate me so that I don't call them out unnecessarily! They can tell you what is in hand & where they have got to, but whether they then keep a record I do not know. I have no idea if they have plans of the drains. What seems to be happening is that the roads are swept less often, the gulleys get blocked more often, then of course there is more debris going down the drains from the gulleys & so the drains block.*

*On our farm we have plans of every land drain laid since 1960. It is essential to have them otherwise it is a nightmare trying to find them if there is a blockage.*

*Peter.*

## **LCC Highways**

Are focused on the roads of course.

We contacted LCC Highways on the Sunday and asked for the Belvoir Road gutter drains to be sucked out, on both sides of the road, to ease the flow of water down the drains. They plan to come to do this on the Monday. We also need to find out whether they are the right agency to clear out the culvert and pipe that runs in place of a dyke on the east side of Belvoir Road.

One report from Stuart Clarke, 31 Belvoir Road, that said they had been to do this at 21.30 on the Sunday – we do not have confirmation yet of whether this was LCC Highways, and what they were able to do.

## **Melton Borough Council can supply sand bags.**

There is not a great deal MBC do on these occasions. But on this occasion it was difficult to get a clear steer or how many would be delivered and where to. This was perhaps because the flooding happened on a Sunday. At time of writing (Monday) the bags have not yet arrived.

### **Environment Agency**

Again limited scope. They focus on the rivers, and did come to prevent any blockages on the Devon outside the front of St Mary's Church. But they are not set up to help us stop water getting into homes. (and I understand are not responsible for the Winterbeck). Someone called Lesley Sharpe came to look at the Winterbeck in the week afterwards – but were they here to work out a solution of to create a better flood map?

### **Fire Service**

They were the best help. They were able to use their engine and pumps to pump out a great deal of water from the front of the houses on Nottingham Road, but by their own measure they were fighting a losing battle given the amount of water coming in from the fields at the back and at the side of the three bungalows.

### **Police**

We had closed the road, by parking cars across the road and putting one resident at either end to redirect traffic. The Police did come, and were able to close Belvoir Road officially. We do need to be careful though, as the PCSO was too keen to re-open the road once the surface water had been dispelled, whilst we knew we had to work in the road to get rid of the water from either side (we were pushing the water into the main sewer in the centre of the road.) After explaining this the Police relented and it was a further couple of hours before we eventually opened the road. One of the PCSOs was a good help with brush and shovel too!

### **Flood Warden in Bottesford**

The Flood Warden, Mr Peter Sheardown is our main support if a flood episode occurs.

There is a monitoring station at Woolsthorpe in the Devon & if there is a risk to property Peter gets a call.

(Anyone can sign up for that.). We have a rain gauge for the EA at Woolsthorpe. Peter looked after it 1962 to 2001. His son does it now. Peter also looks at the BBC weather and MeteoBlue on his phone. (Meteo blue takes an average of several forecasts.) He gets encouragement from The Resilience Partnership (Leics) & they organise training most years. He has taken other Bottesford wardens to them in the past.

### **Residents and Parish Council**

On the day it was down to us to do whatever we could to defend our homes. We need to be sure we are as prepared as possible for any repeat.

The greatest help came from residents of the homes most affected and their neighbours who pulled together to look after each others properties and the significant number of residents from other parts of the Parish who came to help...

The people of Belvoir Road were a great help in getting bags to Nottingham Road and Bowbridge Gardens. Ian from Queen Street was a great help with his van. Matt Reid from Albert Street. Sue Dunsmore helped alert the Parish Council team to the issues in Nottingham Road.

Thanks to all the residents who have sent in photos, suggestions and ideas to help

complete this report: Stuart Clark, Cob George, Sue and Colin Love, Richard Simon,

Parish Councillors: Bob, Leigh, Lorraine and Brian lifted drain covers, distributed sandbags, brushed water and managed calls from other areas affected. Britta from Normanton transporting bags around in her mini. Ex-Councillors Heather Shephard and James Goodson from Easthorpe kept a good eye out across their village, especially at the most vulnerable areas.

Cllr Tony Bennett who joined Bob and Leigh reviewing the Winterbeck flow.

A local resident went off for a petrol-powered water pump to get more water out of Belvoir Road. Borough Councillor Don Pritchett who had the duck-crossing outside the Church cordoned off. The people in Bowbridge Gardens who protected their neighbours who were out for the morning.

Flood Warden Peter Sheardown for his preparation and keeping the bags in good order and accessible. And the people at the Library offered teas and coffees and a place of warmth.

# Causes of the Flooding & Possible Solutions

## Contributions from Residents

### **Resident #1 - views on The Wickets sent to me on the day of Storm Dennis. 16<sup>th</sup> Feb 2020.**

The Winterbeck did not burst its banks at Belvoir Road. It did reach higher than the outflow on the Wickets development drainage channel causing the drain to fill to the same level as the river.

It is my belief that water from the Wickets drainage channel crossed into the ditch that runs alongside the middle part of Belvoir Road. From here it flooded the road and gardens of a number of houses. The water that was flowing along Belvoir Road was the same colour as that in the Winterbeck and the Wickets drainage channel. Once the residents cleared the drains in Belvoir Road the water levels subsided. However it must be assumed that the water continued its journey into the village in the drainage system and may well have reappeared elsewhere.

The Winterbeck from the point it crosses under the A52 up to Belvoir Road has been well maintained. It seems to be cleared and dredged every couple of years. After Belvoir Road the beck enters an area of fenced off land. At this point the channel has not been maintained for some time. In flood conditions the channel is restricted by many trees growing on the sides of the beck. There are fallen trees lying in the river.

At Barkstone Lane there is an old sheep dip that significantly reduces flow. The water can be seen to be 2 or 3 inches higher on its upstream side.

Equally there is a pipe across the river by the road bridge that also causes the river to back up on the upstream side. I believe when the Winterbeck is in full spate it is essential that we can ensure the water can get around and past the village. We risk flooding on a far greater scale than we have seen if something jams and blocks the beck when it is flood.

### **Resident #2 thoughts sent to me following Storm Dennis. Feb 2020.**

We may need to talk to the Canal & River trust, to see if there is a way of reducing the overflow into the Winterbeck in times of flood. Consideration will need to be given in case extra flow downstream will affect West End Old station area. Prevention from the Canal would be best.

### **Resident #3 thoughts following Storm Dennis. Feb 2020.**

1. We should learn that drainage systems from new estates should follow the natural drainage pattern. I think the water from the Barratts estate when it overflowed the dyke, as it was bound to, just followed the natural pattern and went towards the north.

2. Against a new bridge on Belvoir Rd - an ugly new one to replace an old one just because we have an ugly new estate on Belvoir Rd.!

3. A line of trees - alders and willows along the field edges.

4. Raise the outlet from the Barratts drainage pit to make the pit hold more before it overflows into dykes which are inadequate.

5. Hold the managers of the canal to account for overflows AND have a warning system for residents on Belvoir Rd as soon as the canal overtops.

### **Resident #4 thoughts following Storm Dennis. Feb 2020.**

I have never seen the dyke on the Belvoir Road side of the hedge leading to the Winterbeck bridge ever being cleaned out. I am not sure who is legally liable for this. Is the land owner responsible for BOTH sides of the hedge? What we are experiencing must be extensively the outcome of allowing the Wickets' estate being built without provision for adequate water management.

Can you check when the Winterbeck was last cleared along its length and the culverts cleared on Belvoir Road by LCC and also ask Barratt's when they last cleared the dyke from the SUDs pit to the Winterbeck?

This resident also expressed concern over the LCC responsiveness on their website: "water is coming across Belvoir Road and flowing north towards the centre of the village - mainly, it would seem, because the culvert (to the East of Belvoir Rd) has not been maintained. We have tried to contact LCC about this - presumably they were aware of the forthcoming storms. However, nobody answers the phone number - and, indeed the 4 options made available do not include water management/flooding."

### **Resident #5 thoughts following Storm Dennis. Feb 2020.**

Winterbeck upstream to Bottesford

Consider a flood area in fields on the approaches to the villages



I was told that Donya Donger posted something as to why the Winterbeck was so high. When I last looked the Winterbeck, as it runs behind Norris' field in the west end, it was rather overgrown there are also two or three culverts here admittedly quite big but still a pinch point.

#### Winterbeck in Bottesford

There is a check flap on the outlet from Wickets SuDS system dyke so water cannot leave the dyke all the while the Winterbeck is high enough to keep the flap closed.

The bridges and culverts on the Winterbeck potentially restrict the flow. The bridges on Barkestone Lane and Belvoir Road, presumably due to the need to keep the roads level, have the clearance below the level of the banks so when the Winterbeck is nearly full the water backs up onto the banks. Additionally the Belvoir Road bridge is a brick arch so as the water rises it is faced with less of a passageway.

I looked at the Wickets SuDS, the level in the pond is low and there is no water running into the dyke. I wonder if the outlet from the pond is set too low as it seems the pond could be allowed to fill more before overflowing into the dyke.

In the dyke itself the first part nearest the open space has been cleared of plant matter but I'm not sure that the silting up has been attended to. Next to the culverts the water is relatively deep but I stood in the bottom of this section, away from the culverts, which is quite shallow and the water was only 80mm or so deep suggesting the water capacity of this section is low and this is nearest Belvoir Road.

The last section of the dyke up to where it joins the Winterbeck has not been cleared and there is a lot of dead plant growth in the ditch. There are 4 land drains that flow into the dyke, numbered 1-4 on the pictures running from north to south, No 4 being nearest to the Winterbeck. Only one was clear, two had apparent obstructions and one was completely blocked.

#### The Wickets & The Sands

We might have to consider some form of bund around the dyke at the north end where it turns from west to south given how high the water level was and the falling ground I think this is a risk. Did anyone note the level in the Wickets pond?

#### Winterbeck downstream from Bottesford

Discuss with Trent IDB. I have seen in a report from the 2001 flood that the Winterbeck joins the Devon at a right angle giving no chance of entraining the water flow when the Devon is in full spate.

#### **Resident #6 thoughts following Storm Dennis. Feb 2020.**

One problem that most people mention is the Winterbeck never gets cleaned out past the Winterbeck Manor Belvoir Road through to Barkestone Lane as it is private land and the trees along the beck.

#### **Resident #7 thoughts following Storm Dennis. Feb 2020.**

Bob, Thank you for your notes. I have not yet read the response plan been making enquiries/research and considering de - brief. Most of my items match your notes, explicit or implied. Is there a need for a be brief meeting or just desk update of documents such as flood response plan?

#### **De brief issues**

- Training in emergency response responsibilities of MBC councillors and MBC responsibilities/contacts not provided to MBC councillors. I had this on my non urgent list after October-needs to be done soon.
- 1.30 p.m. sandbag delivery never arrived taken by locations en route. Need to ensure what for Bottesford arrives and do we need bigger stock and bigger storage place for these and signs?
- List of names and phone numbers, responsibilities and who in charge if you and other important people not available
- fit young volunteer list and phone numbers
- High vis to identify officials?
- Controlling local social media during the day - members of the public posted misleading information including Lincolnshire phone number for sandbags
- Distribution of sandbags first on a risk basis - best technique for placing, polythene behind? seek advice?
- how to sign the road near church and ford??
- Key ditches and drain junctions to check and equipment to clear (I checked rundle beck that was blocked in 2001, running ok. rain drain junction bowbridge lane had water pouring out low risk I think)
- Return of signs to where? I have 2 in my garage
- Flood gates for at risk houses, possible grants (Pru told me of those at Muston)
- Law relating to flooding - if natural land use and floods neighbour no liability. If land used in modern intensive way then liability. MBC have been asked to check and initiate investigation into flooding caused

by Barratt land draining. Also after discussing with Pru requesting calculations and draining method be checked for Barratt site and other proposed developments where storage ponds to be used.

- Need to understand catchment area for canal rainwater and (thought not now but Grantham water 20 years ago pumped into canal per Pru) Water from River Devon into canal if bridge blocked at Muston (not reported this time), blockages at pipe bridges etc leading to canal overflowing to ditches and into Winterbeck.
- Need to understand source of Winterbeck, both saturated land improved farm drainage, Leicestershire channel versus likely bigger channels in Nottinghamshire. Hearsay upcoming survey of Winterbeck?
- Photos - I took photos including contentious Muston lane and Rectory farm sites no problems on the day.
- I left off economic damage to farm crop yields,
- For Grantham draining rainwater into the canal I said the pumping had stopped. Pru meant pumping from Barrowby road had stopped but still sure earlsfield area of grantham drains into canal and Pru/we are concerned about building at Grantham and the effect on us of water gonging into the canal

#### **Resident #8**

Good report. There are a couple of comments.

- If you remember the difficulty opening up the large drain covers. We should purchase some tools/keys
- I have looked again at the water flow from the Wickets to the Winterbeck. The entry point into the Winterbeck is very low and therefore as soon as the water is higher than normal the water will not flow into the winterbeck. I am not sure there is a solution to this except to dig the Winterbeck deeper. I have attached a couple of photos to show the level of the Winterback on Sunday and the outlet drain from wickets. You will see that the water-level is high and the outlet into the Winterbeck is at the same height.
- The path running alongside the Winterbeck is colapsing. It was communicated by a resident but it is getting worse day by day.  
Work needs to be done on this. Again picture attached.

#### **Resident #9**

Possibilities of Anglian Water putting water into the canal.

It was acknowledged in 2001 that a significant part of the problems in Bottesford area came from the fact that waste water was being poured into the Canal at Grantham, 24/7.

British Waterways were responsible for the Canal then. Water from the Canal seeped into the Devon at Muston and again at Muston Gorse into the Winterbeck.

When questions were asked back in 2001 why this surplus water was being siphoned into the Canal, the answer came back that it came from development in Grantham and the natural flow was into the Canal.

Following the debates into the terrible flooding nationwide, it appears that the easy option to deal with surplus water from new development is to direct it to minor water courses, which is fine in normal weather conditions but not in the extreme rainfall we have experienced now for 6 months.

## **Conclusions**

Flooding episodes can be very different: The 2001 flood was in July when the ground was hard, the 2020 was in February when the ground was saturated. When the ground is saturated it takes very little rain to fill the dykes again and to cause more potential flooding.

The cause of the flooding on Belvoir Road and Nottingham Road, and the reduction of the likelihood of future flooding events has been one of the main areas of focus of this report. We have gone back up-stream along the Winterbeck to understand the causes.

The report concludes:

### **1. Decreasing the amount of water going into the Winterbeck**

Leigh, Tony and Bob visited the tow-path on 28<sup>th</sup> Feb... Canal water was seen, and videoed, seeping over the top of the canal, across the tow-path and into The Thicket. The water is known to pass across the fields north of The Thicket and into the Winterbeck.



We also have a concern that excess water is being put into the Canal, which could be causing the canal to over-flow.

We received this report from Borough Cllr Pru Chandler:

*I am very concerned at the state of the Grantham Canal which I believe is one of the reasons why both the Devon and Winterbeck are causing problems. The Canal & River Trust admit that the problem lies with Anglia Water who are tipping thousands of gallons of surface water into the Canal at Grantham. The fields adjacent to the Canal were never water logged to the extent they are now, and water always finds away to a lower level. The evidence can be seen at Muston Gorse Bridge where the Canal overflows into the Winterbeck*

## 2. Belvoir Road

From the observations made, the flooding on Belvoir Road was due to the water on the Public Open Space at The Sands not draining away appropriately: The dyke from the The Wickets attenuation pond was full, and not moving. The dyke was not draining into the Winterbeck sufficiently. This dyke does not seem to have been built to cope with this level of rain and run-off.



The dyke along the East side of the Belvoir Road was full and not moving.

The gutter drains along both sides of Belvoir Road, between Belvoir Avenue and Keel Drive, were full and not taking sufficient amounts of water away.

The building of houses on The Wickets has not helped. This estate now provides an island and a dam, whereas before they were built water would run across this site to the cricket pitch and towards Easthorpe where it would flow into a dyke to the Devon.

### 3. **Nottingham Road**

From our own observations the flooding of two houses and the gardens of a third was caused by water coming in from the area known as the Nursery behind Andrew Simpson's home.

It seems that water flows in interesting ways from this area:

- a. There are a number of dykes and culverts (3?) that take water from this area down to the Winterbeck. These culverts end in three 'one-way' valves allowing water to flow in to the Winterbeck, but not back. – there is some concern amongst residents that one of these vales may have a broken hinge which should be checked. However – this is not felt to have been the issue that caused the flooding of the bungalows running down to the Old West End Station.
  
- b. There is also a dyke that takes water from the Nursery area back towards the Nottingham Road, past Andrew Simpson's family home, behind the rented home next to the Simpson's family, and to the small garden pond. the water then comes out of that pond into a dyke to the verge at the front of the houses on Nottingham Road. At this point the dyke turn left and head parallel to the road between hedge and verge. It enters a culvert to go under the side road that links the Nursery with Nottingham Road. And just before this side road, residents tell us that it enters a small-bore pipe – that is not big enough to take the water. This causes a blockage, water backs up and water from the Dyke comes out into the drive of Simpson's family home and across towards the back of Mick and Sue Markham's bungalow. Residents feel that this could be rectified, and perhaps for a relatively low cost – and we should help them investigate. There is likely to be some difficulty due to a specific electrical link between the road and some of the homes, that would need to be considered as part of the solution in this area. Solving this issue here would make a big difference – because this was the single biggest issue in Bottesford during this Feb 2020 flooding episode: Ten days later some of the residents of two homes have not yet been able to return to their home.

### 4. **First entrance into Muston**

The flooding that has been here for weeks is thought to be because of a blocked drain. – We should ask LCC to come and unblock the drain.

We have this report from Borough Councillor Pru Chandler:

*Good Morning Bob. There is a drain or gully at the side of the road which silts up . In normal winters Highways come and flush the water through. Some 20/30 years ago they piped the water down to the Devon . This year the problem is being aggravated by run off from paddocks to the east of the road. Around a month ago Highways sent in contractors who closed the road for an hour or two whilst they, using sophisticated equipment managed*

*to clear the water, they swept up the silt and all looked pristine until the next storm when things were back to square one. Obviously the route to the river is silted up. I can confirm that L.C.C. are monitoring the situation and hopefully some action will follow once the weather abates.*

## **Recommendations for Preventing Future Flooding**

### **Reducing the amount of water flowing into the Winterbeck during peak flood events.**

1. Reduce the amount of water coming into the Winterbeck from the canal. Discuss other options with those responsible for the Grantham Canal towpath. The water is known to pass across the fields north of The Thicket and into the Winterbeck. XX years ago the height of the tow-path was raised to stop most of the water flooding into The Thicket – but the work at the time stopped with just 100m more to do, when they ran out of soil. We should consider extending the work done along here to address the final 100m. The PC has contacted **The Canal & River Trust**, and the **Grantham Canal Trust** to ask for their views on this issue.

As a temporary measure and until the towpath can be heightened we could ask that sandbags be laid along the canal-side for the final 100m.

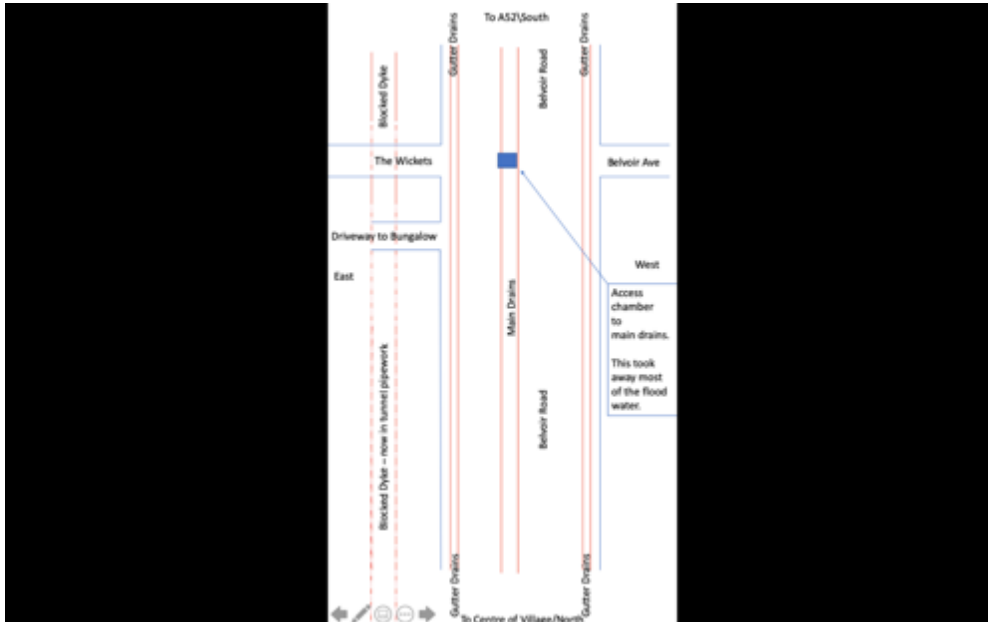
2. We also need to investigate reports that Anglia Water are tipping surface water into the canal, and that this water is contributing to the over-flow of the canal into the Winterbeck. The PC may wish to talk to **Anglia Water** about this issue.

### **Reducing the likelihood of flooding of homes on Belvoir Road**

1. Ask LCC Highways to clear out the gutter drains along both sides of Belvoir Road. (they may have done this on the evening after the flood – we should predict this in future and ask for this to be done before).
2. Ask the relevant authority to clean out the dyke and pipe alongside the East Side Belvoir road and be sure that it flows safely and not into the streets in the centre of the village. Find who is responsible for the pipe and have this pipe cleaned out – it has not been pumped out since it was built and could be blocked. **(LCC, LCC Highways?, Severn Trent? According to LCC it might even be the responsibility of the residents of Belvoir Road!)**
3. Ask Barratts CEO (Mr David Thomas), and Regional Director (Mr Chris Southgate) to meet us again and to assess the out-flow from The Wickets / The Sands site into the Winterbeck and create a system that copes for the levels of rain we have seen in Jan and Feb 2020.
4. Cut the hedge between Belvoir Road and The Wickets grassed area, and keep it cut. To make sure branches do not fall into the dyke and block the dyke. **Barratts** need to tell us why the Management Co. has not yet taken responsibility for Public Open Space at The Wickets and other areas surroundings of The Wickets. Chris Southgate from Barratts has responded offering no willingness to meet, and asserting that Barratts have delivered all

that was expected of them.

5. Construct a map of the drains on Belvoir Road so that residents know which drains take which water were fastest, and how to get access. (We have now constructed our own, but we should ask **Severn Trent** for a map).



6. Build a plan to clear any blockages in the Winterbeck downstream of Belvoir Road (not Environment Agency responsibility?, is it now the authority who replaced the **Trent Internal Drainage Board**?)
  - a. Remove any trees growing within the Winterbeck, even those within private land like the Winterbeck Stud.
  - b. Remove the 'sheep dip' by the Barkestone Lane bridge to east the flow of water downstream and under the Barkestone Lane bridge – which does now seem to be wide enough to cope.



7. The Belvoir Road Winterbeck bridge is acting as a bottleneck. Ideally it should be re-laid to allow more water under it, or for a 'managed-flood escape' to be created to the South of the bridge to allow high water to run off in the direction of the 'Triangle Field', or 'Horse Field' rather than towards Belvoir Road.

### **Reducing the likelihood of flooding homes on Nottingham Road**

1. Ask the owners of the land near the Nottingham Road old railway bridge to review the drainage of the fields.
2. Is there a drainage system from these fields under the Old Station towards the Orston Lane? Is that still working to irrigate the two fields to the South of the old bridge? Or could these fields drain to the Winterbeck? (perhaps meet with the Norris Family).

### **Reducing the likelihood of flooding on the River Devon**

1. Ask the **Environment Agency** to clear any debris in the Devon downstream of St Mary's.

### **Reducing the likelihood of flooding in Muston**

Leigh

## **Other Recommendations**

### **Lead Authority**

The Lead Authority on flooding is LCC. This may be a surprise to local residents. We have not heard from LCC during last weekend's flooding or since. We should liaise with them to see if they have conducted a review and have any ideas for reducing the likelihood of flooding in Bottesford.

### **Parish Council & Flood Warden Changes**

#### **Sandbags & Flood Team**

1. Consider the idea of creating a list of willing volunteers to be the Village Flood Warden's Team on a day like today; together with a Deputy Flood Warden position.
2. Ask all sandbag users to return them as soon as possible to the Village Hall store as soon as they feel they are not needed so that they can be re-deployed.
3. Have an agreement with MBC in place for who we should call for more sandbags, even on a Sunday and Bank Holiday.
4. Doorway flood defence boards could be added by at-risk residents on their external doors – as has been done at the Forge Tea Rooms.
5. Ensure the Flood Warden has a budget to buy
  - a. 30 x Road traffic cones
  - b. 2 x Road Closed signs
  - c. 2 x Residents Access Only signs
  - d. Hazzard Tape
  - e. And to fix the door handle on the Belvoir Road store
  - f. And to replenish the bags damaged this weekend
6. A couple of water-pumps would have helped. The one we did have was kindly provided by a local resident. But it would be good to know we had a

couple that were available and ready to use as soon as needed. They would move standing water to drains.

7. Copies of the Emergency Response Plan should be in each Sand bag depot.

### **Communications, Web and Signage**

1. Create an official "early warning system" between upstream residents and Bottesford PC alongside both the Winterbeck and the Devon.
2. Give a copy of the Parish Council Emergency Response Plan to each of the residents that were in danger this time, so that they know who to call. Make sure they know where all the sandbags are kept and where to get keys.
3. During Flooding Periods put a message on the PC answerphone, and redirect to one of our mobiles. Put a similar message and regular updates on the PC Website.
4. We need to ask Melton Borough Council to put up a Flood Alert sign on the front page and link it through to people who are on duty... The message should also state that the Authority responsible for flooding is LCC. (At the moment it directs people to the Parish Council office – which of course will not be staffed in the event of an Flood Emergency.
5. Create a plimsole pole on the telegraph pole near to the church that shows the depth of the water – both sides - so cars can see the depth of the water from both directions.

Report written for the Parish Council  
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