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Lowdham Community Drop-in- Questions & Answers

Thank you to those who attended our community drop-in on 11 January 2024. We collated questions from the public which can be found below with our answers:

Cricket Pitch flood storage area: Why did Station Road spill before the cricket pitch filled in Storms Babet and Henk? Can we drop the level in the cricket pitch to provide more storage in the interim?

How water affects the village varies depending on the storm, e.g. the rainfall intensity over the catchment. In both Storm Babet & Storm Henk, water in the Cocker Beck rose quickly. While the cricket pitch filled as it was designed to, water flowed downstream and caused flooding on Station Rd. If we lower the level of the cricket pitch, water would be allowed onto the field, however it would be stored prematurely which would reduce the flood risk reduction offered.

During Storm Henk, why were pumps installed in the Cocker Beck on Station Rd?

During Storm Henk, we knew 11 Station Rd was at risk of collapsing into the Cocker Beck. Had this occurred, the Cocker Beck would have been blocked, drastically increasing flood risk to the community. In response, we installed emergency pumps at Lime Tree Gardens to reduce the Cocker Beck flow in order to mitigate the continued erosion of the foundations of the house. However, we acknowledge this formed a dam when it caught debris, forcing water out of the channel. Since the flood, we have learnt from residents, reviewed our process of deploying the pumps and we will do it differently in the future. For example, we will deploy pumps parallel to water flow, and use suction pumps rather than submersible pumps which up take less space in the watercourse.

River level gauge: predicted time taken for the peak level recorded at the Lowdham Grange gauge to travel to Lowdham Village. During Storm Henk, the level gauge was dropping but levels still rising in the village.

During Storm Babet, peak river level was recorded on the Lowdham Grange river gauge at 12:39pm. Using our CCTV snapshots, the gauge board at Southwell Road reached a peak between 13:06 and 15:05 (it remained at a high level in this area for a long time in this event). Due to the volumes of water involved in this event, we'll reference another rainfall event to offer more guidance on travel times.

Peak river level for the rainfall event on 30th October was recorded at 19:25. The gauge board at Southwell Road records a peak river level between 19:48 and 20:03. Using this data we have a travel time of approximately 25 – 35 minutes between Lowdham Grange and Southwell Road.

Merevale Close bridge is a restriction to flow. Have we considered its removal? Why can't we raise it like other bridges? Could the capacity be increased?

Lowdham FAS Outline Business Case (OBC) approved in 2021, Option 10 considered "Enlarge / remove existing structures," which concluded, "there are a number of structures that may restrict conveyance through the village. However, work to date did not identify a single structure or group of structures that by removing/upsizing would provide significant benefit." As a result, this option was rejected.

The new Lowdham flood storage reservoir (FSR) will hold water at Lowdham Grange, reducing flow in the Cocker Beck in Lowdham therefore reducing the risk of flooding, even with all bridges present.

Surface water: why don't STW adopt the drains on Tannery Drive?

Surface water is not within the EA's remit. This usually falls to Nottinghamshire County Council (NCC) as the lead local flood authority. The EA will liaise with Severn Trent Water (STW) and NCC to improve surface water drainage in the village.

During Storm Henk, there was a lack of EA staff attending the pumps installed on Station Rd. Should they have been permanently attended?

Storm Henk was a major flood event, enough that the threshold for a major incident event was surpassed and declared across Nottinghamshire and the level of the Trent reached similar levels to that of in 2000 at the Colwick gauge. During major events like these, we use our flood incident response staff across many communities including Lowdham. As such, during Stom Henk we checked the pumps installed in the Cocker Beck periodically. If in the future the community see a flood problem they need to report, they can call the Environment Agency's incident hotline 0800 80 70 60.

Timescales for delivery of the FSR: why will it take so long? What can be done in the interim. Can construction be speeded up? If we had more money, could the reservoir be completed quickly.

The Lowdham Flood Storage Reservoir (FSR) is a complex flood risk management project. The finished embankment will be a Category A Reservoir under the Reservoirs Act 1975 because a breach could endanger lives in a community. As such, the engineering requirements, emergency action plans and provisions, and safety considerations are higher than our standard river flood embankments. This project has been developed extensively for years. We are delivering as fast as reasonably practicable and additional funding wouldn't make much difference. For updates on FSR construction, please watch our Citizens Space page at https://consult.environment-agency.gov.uk/east-midlands/lowdham/

Storm Babet & Storm Henk: so many properties were flooded during these events. Will the new flood storage reservoir (FSR) protect the community in a similar event?

Without modelling the specifics of each storm, we cannot be completely certain. However the Lowdham FSR model shows 191 properties are protected in the village from both fluvial flow in the Cocker Beck and surface water. Storm Babet flooded 143 properties therefore we anticipate the FSR will protect these properties when complete in a storm of similar intensity

During recent high flow events, floating debris was washed down the Cocker Beck from the Lowdham FSR site. We are concerned this could cause blockages in the village. Can this be reduced?

We will work with our contractor Jacksons to implement measures at the construction site to control debris and collect it before it leaves the working area.

Do the community have responsibilities for the Cocker Beck?

As landowners, you have responsibilities for the stretch of watercourse you own. This is known as riparian ownership. You normally own a stretch of watercourse that runs on or under your land, or on the boundary of your land, up to its centre. Further information can be found in our "Owning a Watercourse" guidance online at https://www.gov.uk/guidance/owning-a-watercourse . We recommend residents check their insurance covers flood damage.

Can a floodwall be built on Station Rd?

The Lowdham FAS Outline Business Case (OBC) approved in 2021 considered floodwalls in the village and concluded, "studies have shown that defences would need to be approximately 2m in height to provide protection to the village [and would be] visually unacceptable due to geometry." As a result, the option of floodwalls in the village to reduce flood risk was rejected.

The new Lowdham flood storage reservoir (FSR) will hold water at Lowdham Grange, reducing flow in the Cocker Beck in Lowdham therefore reducing the risk of flooding.

Local residents have dug grips through the embankment on the east bank downstream of Caythope Rd to allow flood water onto a Severn Trent field, reducing floodwater in the Cocker Beck. Can the Environment Agency lower this embankment?

The Lowdham FAS Outline Business Case (OBC) approved in 2021 looked into this benefit which concluded, "improving the floodplain downstream of the railway may allow for some alleviation of flooding within the village. However, this in isolation is unlikely to provide significant benefit to the village." Through feedback from residents, we are looking into this option again. Any work carried out must be done in liaison with Severn Trent Water, owners of the adjacent field. Our "Owning a Watercourse" guidance which can be found online at https://www.gov.uk/guidance/owning-a-watercourse states landowners "have the right to protect your property from flooding and erosion ... but you must not build anything which could divert water and increase flood risk to other people's property."

Can homes be provided with property level protection while we wait for the FAS? Aqua sacks, flood doors etc.

The solution to reduce flood risk for Lowdham is the new flood storage reservoir (FSR) at Lowdham Grange. To obtain sufficient funding to start the project, we had to ensure costs were kept to a minimum. As a result, we cannot justify property level protection as to spend funding available to protect the community would lead to the FSR becoming unviable.

In Storm Babet the levels dropped very quickly, why is that, did you open a gate?

There is no presence of any EA or 3rd party sluice gates or similar assets on the Cocker Beck downstream of Lowdham. Watercourses react differently depending on the level of rainfall. Storm Babet delivered a very intense amount of rainfall in a short period, causing river levels to rise rapidly. As the water was unable to infiltrate into the ground, the beck rose rapidly, but then discharged away towards the Trent quickly. As the Cocker Beck is a smaller watercourse, this is a common occurrence and is reflected across many of the communities we've seen affected by Storm Babet.

Why are so many houses being built in the catchment, doesn't this impact on flooding?

The Environment Agency are responsible for main river (fluvial) flooding in England. Planning applications in flood zones 2 and 3 must include a flood risk assessment to examine the risk of flooding to the proposed development. The Environment Agency object to proposed developments at high flood risk unless it can be shown that they can be made safe from flooding without increasing flood risk to others.

Our comments are sent to the Local Planning Authority who make the decision on the application. Applications in flood zone 1 are not expected to be at risk of fluvial flooding but may be at risk of flooding from surface water (rainfall). All new development has the potential to increase surface water runoff if areas of land are paved and built on. Therefore, new development must attenuate (hold back) its own surface water on site to ensure that the overall runoff into drains or watercourses is at a ‘greenfield’ level e.g. the same as it would be if the site was still a greenfield site. This is usually done with attenuation basins, groundwater soakaways, underground storage crates etc. The Lead Local Flood Authority, which in your area would be Nottinghamshire County Council, are responsible for assessing surface water plans for major development, to make sure they are appropriate and will be effective. New development with a correctly constructed surface water scheme (sometimes called ‘Sustainable Urban Drainage’ (SUDS)) should not therefore increase flood risk downstream.

Not everyone has access to Facebook, social media, web, please use notice boards to update the community.

The Environment Agency are producing quarterly updates for the Lowdham Flood Storage Reservoir (FSR) and will be placed on the village noticeboard. Our next update is due in February 2024.