Naburn: Summary of the Public Meeting

26 January 2021

On 15 December 2020, we held an online public meeting to provide the community with an update on the Naburn Flood Alleviation Scheme. We hosted this meeting online using Zoom, with a 40 minute presentation from the project team and a 40 minute question and answer session. In total, approximately 17 members of the public attended. A recording of the event can be viewed on YouTube via this link.

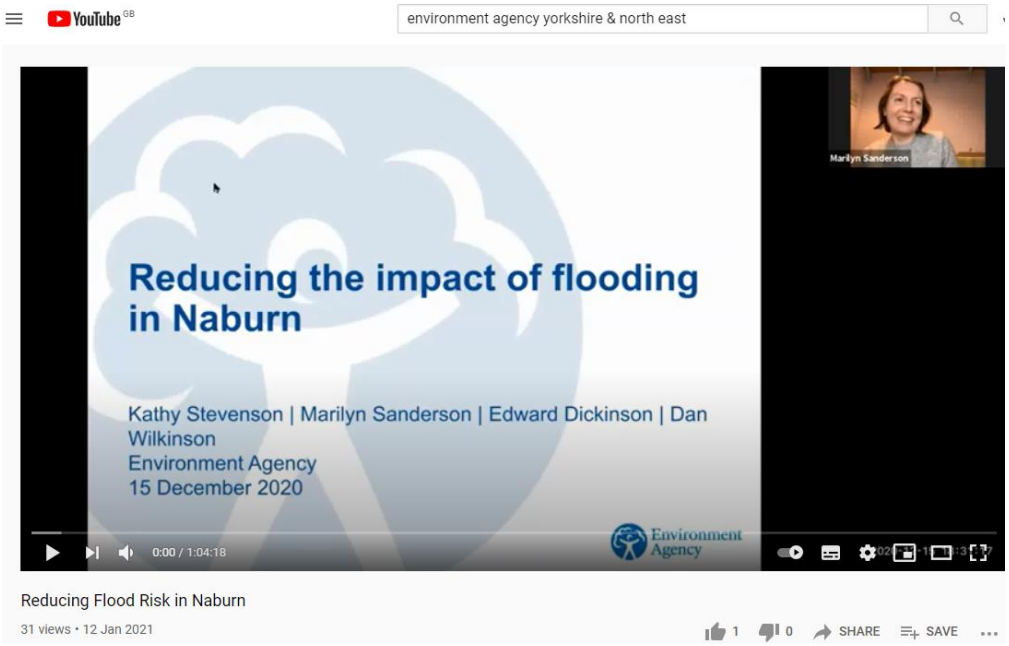

Figure 1 - Screenshot of recording of event uploaded to YouTube

How we advertised the event

We publicised the event using a range of methods including:

- An email invite via our Naburn electronic mailing list;
- A survey asking residents for their input as to what our presentation should focus on;
- An email invite to the Parish Council and local Councillors;
- The Naburn Village Flood Group;
- Posters in the community; and
- Facebook and Twitter posts.

Information we provided

Prior to the event, we circulated an electronic survey asking respondents to tell us what aspects of the scheme they would like us to prioritise in our presentation and which aspects they felt they required more information on, as well as any other comments that respondents would like to make. The responses to the survey are summarised in Figures 2 and 3 below:

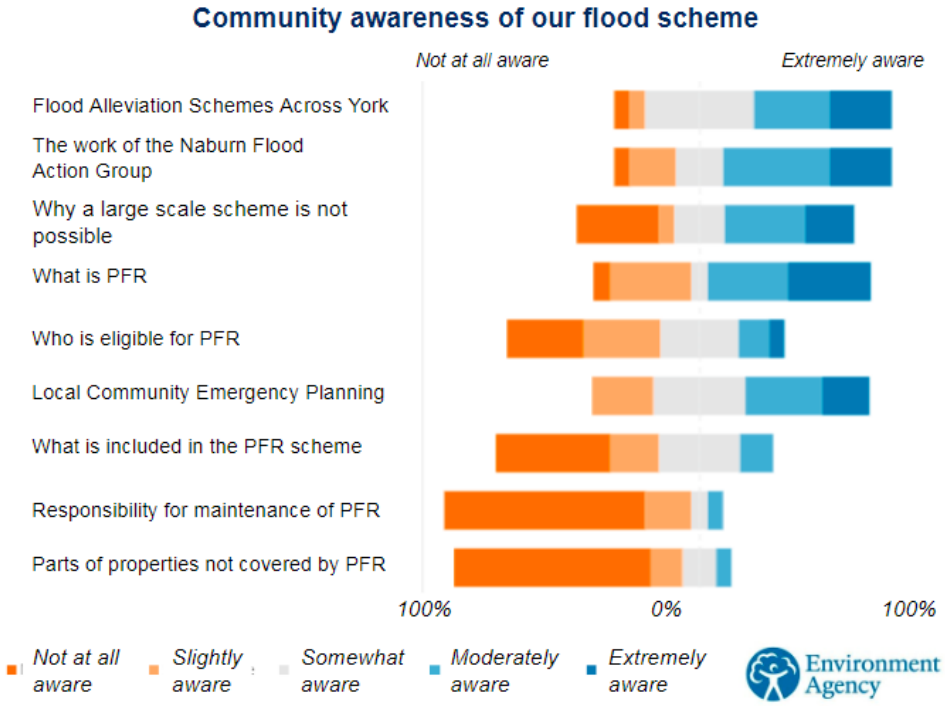

Figure 2 - Summary of responses to the survey which asked respondents to indicate how aware they were of different aspects of our scheme.

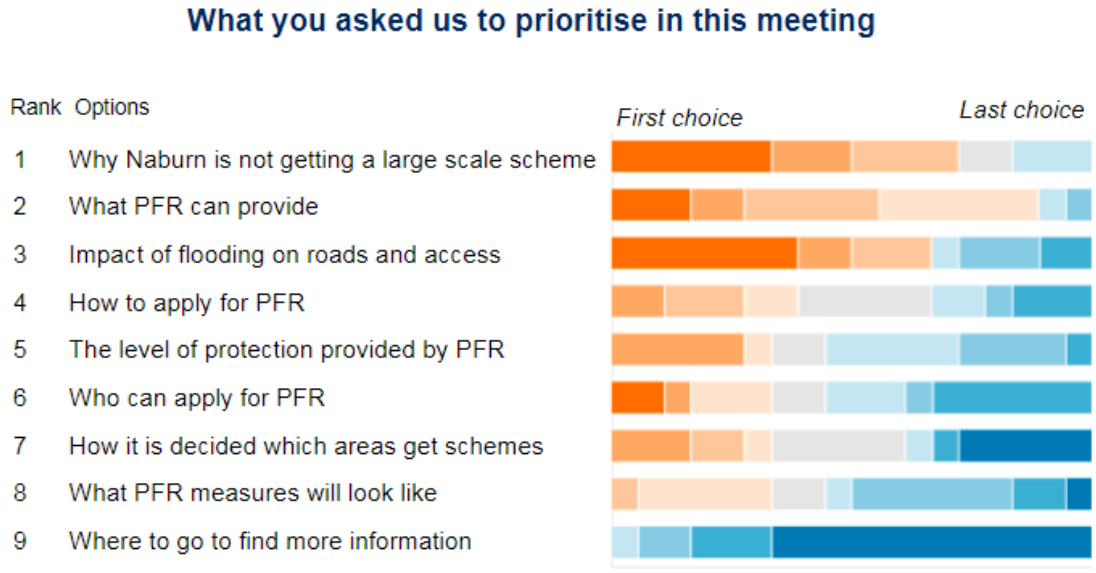

Figure 3 - Summary of responses to the survey which asked respondents to indicate which aspects of the scheme they wanted to know more about.

In total, we received 18 responses to the survey. We would like to thank those who took the time to respond and hope that the presentation reflected your input. In the presentation, we provided an overview of:

- The process the Environment Agency has to follow when seeking to develop a flood alleviation scheme;
- The history of the Naburn flood alleviation scheme;

- The challenges that we faced as we attempted to develop a capital scheme that would be financially feasible and technically viable;
- The conclusion to our process and the identification of a preferred option for Naburn - Property Flood Resilience (PFR);
- An introduction to PFR; and
- Our next steps in Naburn including what we need from yourselves.

We then provided further information during the question and answer session. We will circulate a copy of the presentation in PDF format via the mailing list, along with this summary.

Questions and comments from the meeting

We asked meeting attendees to submit their questions to us via our 'Slido' page (https://www.sli.do/) to enable people to ask questions before and during the meeting. In total, the audience submitted 20 questions and comments. Steve Wragg, Flood Risk Manager at City of York Council (CYC), attended the event and helped answer a question submitted. Within this summary document, we have included the replies to the questions submitted.

Please note that the questions are presented as they were posted on Slido, without corrections for grammar or typos.

– In 2000 just over 50 houses or 1 in 3 were flooded. If the river flooded to the top of the design height of the defences how many houses would be flooded?

The flood height during the 2000 floods was approx. 8.8 metres AOD (Above Ordnance Datum). In order to develop a flood scheme that would provide the 1 in 100 year level of protection for Naburn, we were looking to build defences which would have a minimum height of 9m. If flood water were to overtop the defences at 9m in height, approximately 60 properties would be flooded.

– Properties flood from water backing up the surface water drains from Howden Dyke. What can be done to the drainage system that would alleviate this problem?

The interaction between the River Ouse and the Howden Dyke and the surface water drainage network is significant. When the River Ouse is high, it backs up the surface water in the Dyke, causing flooding. Without creating a barrier between the two, and a method of getting rid of the water from the drainage system, it is very difficult to create a holistic scheme that can prevent future flooding. In addition, any solution addressing the drainage system is dependent on the pumping capacity of the Yorkshire Water pumping station.

Steve Wragg, Flood Risk Manager at CYC, has been speaking to Laurie Gunson (Naburn Village Flood Action Group) about this. It is a matter that CYC have committed to take forward, separate to the Naburn FAS. Where possible, CYC will look for localised solutions and seek to advance them.

– When will the EA contact the residents to discuss the individual pfr measures with householders and why has the threshold been set at £7.5k per household?

The £7.5k allocation given for York is better than in some other areas of the UK. This is partially due to the funding received in 2015. Once homeowners have had their survey, we will be inviting them to discuss the contents of the survey and what options are available.

– How much of the original York FAS funding remains unspent and how do the EA prioritise which areas of the city to protect?

There is no specific allocation of funds towards any individual flood cell in the York FAS. A flood cell is defined by an area where the flood risk can be addressed independently from the surrounding areas. Each cell goes through the assessment process we have described. The assessment process seeks to identify flood defence options which are technically viable and economically feasible given the benefits they provide. This process determines where money can be spent, rather than any upfront allocation of funding.

– Do your surveys for eligibility for property protection take AOD threshold levels into account? How can residents find out their own threshold level?

Yes, we do take thresholds into account. However, when we are looking to identify eligible properties, we seek to identify properties that sit within the 1-in-100 flood risk outline. As such, the threshold levels we look at when determining eligibility for PFR need to be below the threshold level for a 1-in-100 year flood event. Once we have done the surveys, we will be employing contractors to measure the threshold levels in Naburn for those properties where we don't have accurate data. However, it remains crucial that homeowners let us know how and when they have flooded, so please provide us with as much information as possible. If homeowners are new to the area and do not have access to the flood history of their property, we can help them fill in the gaps.

– These general increases in water levels are very interesting, but has any consideration been given to the frequency of flooding going forward?

When talking about the frequency of flooding, we tend to also talk about the probability of flooding occurring in any one year. Hence a 1 in 100 year flood is also referred to by the chance of that size flood happening in any one year which is 1 in 100 or 1% (Annual Exceedance Probability or AEP).

Analysis of historic flood records provides us with a flood level in metres for each frequency of flooding. So in Naburn the flood level for the 1 in 100 flood is equivalent to a 9 metre (AOD) flood level. Our engineers can use this then work to this level to design a scheme.

In addition to considering what flood level a 1 in 100 year flood event will reach now, we must also ensure that additional allowance is made in the designs for future increases as a result of climate change.

As part of our assessments we have also considered protecting against more frequent, less extreme, flood levels. However, for smaller, more frequent floods, the benefits arising from flood defences tend to be lower. This is because fewer properties are protected, whereas the associated costs are reduced at a smaller rate. That is why a 1 in 100 year flood event is the optimum standard of protection we design to.

– I note that gardens are not covered unless there are implications for the property. Please explain what that means

In those properties with adjoining garages, where we can't protect the house without also protecting the garage, there will be sufficient grounds for providing PFR measures for the garage. Where a property has a garden wall which might provide some flood protection, we may be able to help install a barrier or gate in the wall. For instance, we can provide advice to homeowners wishing to install measures in their garden. However, we would need a structural survey of the wall to be done. In addition, the cost of the gate would have to be met by the homeowner.

– How many houses in Naburn have you budgeted to receive the PFR?

We currently estimate about 50 properties, using the current flood outline available to us. However, this will need to be assessed in more detail when we send out questionnaires to properties.

– The costs for flood protection might not come down if freq increases however costs to residents goes up, does that not help the figures balance?

Whilst the cost per property will increase if the frequency of flooding increases, this is more than offset by a reduction in the number of properties affected by higher frequency flooding.

– What strategies are the EA adopting in the Ouse catchment area to reduce the amount of water that impacts downstream during flood events.

The aim of the York flood alleviation scheme is to maintain the 1 in 100 year flood level of protection. To maintain this level of protection into the future, we will need to keep increasing the height of defences, to account for the impacts of climate change. An alternative way to maintain this level of protection is to try and control the speed and volume of water that comes down towards York. As part of York FAS, we have looked at projections and started developing strategies to manage water in the upper catchments that supply water to York. This can be via flood storage areas upstream, natural flood management, land management and tree planting.

– How is the economic viability assessed?

The economic appraisal process for Flood and Coastal Erosion risk management is set out in a publication called the Multi-Coloured Manual. Developed by Middlesex University, the Flood Hazard Research Centre, the EA and DEFRA working in partnership, the handbook provides approaches to implement the policies set out in the HM Treasury Green Book to which all public funded infrastructure spending must adhere.

The Treasury Green Book provides the rules regarding balancing costs and benefits in any public infrastructure scheme. The Multi Coloured Manual set out how those rules should be applied to economic appraisal in flood risk management - for example, the values that can be assigned to houses at risk of flooding and damages avoided.

The process is quite prescriptive. It is worth noting that costs include construction costs, design costs, maintenance costs for the lifetime of the flood defence and any future replacement costs within the life time of the scheme.

– What is the life expectancy for the measures and who is responsible for the replacement costs in the future?

Some of the measures, depending on how frequently they are used/exposed to flood water, will need replacing more often than other measures. Often, when it comes to replacing measures, it is specific elements, like rubber seals, that need replacing. Typically, measures last 10 to 15 years. However, the better they are looked after and maintained, the longer they are likely to last. The homeowner will be responsible for maintaining the measures once the manufacturer's warranty expires.

– When will residents hear from the EA that they are eligible for PFR

We are currently getting contractors in place to carry out the surveys. We are expecting to get everything lined up in the New Year and we are hopeful that we can get the surveys completed in spring 2021. We will be in touch before then with our questionnaires.

– If 50 properties flooded in 2000 and you think up to 60 could flood in future, how will you decide which 10 (or so) properties qualify under the eligibility?

The flood event in 2000 was categorised as being a roughly 1 in 80 year event. We are seeking to offer better flood protection for all properties within the flood outline we are using, which is for a 1 in 100 year event. The 60 properties referred to in the question are within the flood outline for such a flood event, so all properties within this outline are eligible.

– Why is the Foss not dredged to increase water volume within, serving the same purpose as the flood plain, allowing boats to use the Foss Navigation once again!

This question mirrors correspondence that we have had previously with the person who submitted the question. We believe this question has already been addressed separately by our team. Although questions relating to dredging do not relate to the Naburn flood alleviation scheme, we are happy to talk to anyone who may have questions related to the matter.

– Why can't there be an adequate flood gate installed at the river side of the slipway, thus allowing non-return valve sited at the top of the slipway to work?

A flood gate installed at the base of the slipway would have to be considerably higher than the existing road to meet the required flood level. Any surface water that would gather behind the slipway would have to be over pumped. A number of challenges referred to in the presentation, including the need to install piling underground and the likelihood of any single structure being outflanked, would remain.

– When you say 50 properties flooded how do you define a property? Is it the physical house or the boundaries of the whole property (e.g. part of a garden)

It is the physical building - the home. We have mapping software which provides the outline of each building. If the flood outline cuts through a building outline then the property is deemed to be at risk of flooding. If the flood waters enter a garden but do not touch the property then it is not counted as a property at risk of flooding.

– Most residents don't know how much they're at risk. Flooding isnt related to proximity to the river. Will you let each resident know how much risk they under?

We will be getting in touch with residents that are eligible for PFR. For anyone else, there is the government website (link) which enables people to see the flood risk for their property and sign up to our free Flood Warning Service.

– If none of the PFR measures available through this scheme resolve and/or reduce the flood impact to a property, what other options are available?

If what we can provide (resistance measures) is not relevant, then there are other things you can do to protect your property, such as resilience measures (e.g. raised electrics, raised kitchen cabinets, adjustments to carpets etc.).

Next Steps

- We will sign up a contractor to carry out the works;
- We will aim to send out questionnaires to properties in Naburn in the New Year; and
- We recommend that residents sign up to our email mailing list for Naburn by emailing us at yorkfloodplan@environment-agency.gov.uk .

Get in Touch

If you have any further questions about these proposals please contact us at yorkfloodplan@environment-agency.gov.uk