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Thank you for your email of 13th March 2023 asking questions raised by the residents of Polegate at the annual town assembly on the 6th March 2023, in relation to the flood event on the 16th - 17th January (hereby referred to as 'the event'). The questions posed are enclosed at the base of this letter for reference.

We are the Environment Agency (EA). We create better places for people, wildlife, and the environment. We put the climate emergency at the heart of everything we do and help society adapt to environment challenges such as flooding, drought, sea level rise and coastal change.

I have liaised with colleagues and our partners to provide a full response to the questions raised. Questions 16, 17, and 25 I can answer myself. My team (Flood Resilience) are happy to send a Flood Pack to anyone interested. We can send a version by post, or a PDF version (via email). If you would like one, please email us at resilience.solentandsouthdowns@environment-agency.gov.uk. We have discussed the potential to collaborate on creating a website friendly version of the Flood Pack for Polegate Town Council's (PTC) website, which we'd be happy to explore further with PTC. Regarding question 17, the EA is responsible for taking a strategic overview of the management of all sources of flooding and coastal erosion. This includes managing risks through strategic plans; providing evidence and advice to inform Government policy; working collaboratively to support the development of risk management skills and capacity; and providing a framework to support local delivery. The EA also has responsibility for managing the risk of flooding from main rivers, reservoirs, estuaries and the sea, as well as being a coastal erosion risk management authority. As part of our strategic overview role, the EA has published a National Flood and Coastal Risk Management Strategy for England. The strategy provides information on the roles of all those involved in managing risk. To find out more about different organisations responsibilities, please visit <https://www.gov.uk/guidance/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities>.

In relation to question 1, there are many factors that can increase flood risk and so it is difficult to hold accountable one reason for a flood event. Our current understanding is that the event occurred due to an intense amount of rainfall over a short period, which exceeded local capacity. Following the event, we are looking to gather information from the impacted areas to better understand the mechanics of flooding here. We are also improving our relationship with key partners in the area.

Concerning question 2 and 3, the responsibility to maintain a watercourse lies with the landowner (known as Riparian Ownership). A Riparian Owner must let water flow naturally. They may have to remove blockages, such as fallen trees or overhanging branches from their length of watercourse, or cut back trees and shrubs on the bank, if they have the potential to reduce the flow of water or cause flooding. It is good practice to leave all other trees, branches, and shrubs, as they can help prevent flooding by varying the shape and flow of the channel and reduce erosion. The EA has

permissive powers to ensure that Main Rivers are maintained and can issue Notices for the clearance of any watercourse if they become excessively blocked.

Regarding questions 8, 9, 10, 11, 18, 19 and 26, all relevant assets within the area were operating on “winter levels” and therefore were operational throughout the event. There is no downstream manual control mechanism, but there are tidal locking events that can occur twice a day. This happens as the watercourse discharges into the sea via a ‘tidal gate’, that automatically closes on high tides. The tidal gates are not manually operated and they only open when fluvial (river) water levels upstream of them are higher than the tide level downstream. We can confirm that all gates were in working order prior to the event. The EA takes responsibility for maintaining assets that we have adopted or built.

In response to questions 14, 15 and 20, it is the landowner’s responsibility to ensure the watercourse is operating effectively, however, we do have teams which undertake emergency works under our permissive powers. If items are removed from the watercourse by our teams during the use of their permissive powers, it may not be our responsibility to further remove those items from the area. Residents who are concerned about items being left upon the banks of the watercourse can contact our general enquiries team (contact details listed below), to report the situation. I can confirm that we do have enforcement powers related to maintenance of a watercourse, that can be utilised in specific situations. In response to questions 6 and 7 we have raised this concern with the relevant internal teams who will ensure our responsibilities are met in relation to the tree and further updates can be requested from our general enquiries team.

Responding to question 21, and 24, the leaflet has been superseded by the following <https://www.gov.uk/guidance/owning-a-watercourse>. Should an updated / alternative publication become available, I would be happy to share this with your community. On question 22 due to the specific nature of case law, I am unable to provide generalised examples and it would be unsuitable for me to try and provide specific examples related to the Polegate area. In response to question 28, we will continue to work with Grant and his team to ensure a holistic Environment Agency interaction with yourselves.

In response to question 12 and 23, the EA would not be the best authority to complete a project funded by councillor, private, or community funds, however depending on the plans we may be able to offer advice. We regularly check the assets within the area but if anyone in your community finds something of concern with one of our assets, we would encourage them to report the concern to our general enquiries team. Currently there is a low probability that a scheme in Polegate is possible due to the way funding is allocated. All schemes are funded based on a cost benefit analysis. We are exploring natural flood management solutions, which could provide some benefit to flood risk, however this is in the preliminary phase and therefore should not be considered a factor at this time.

In relation to question 5, we are building good connections with our Fire & Rescue partners to explore closer working practices. Although at this time I cannot provide a direct answer to this issue, it may be something that together our organisations can address.

Regarding questions 4 and 13, we have alerted East Sussex County Council and East Sussex Highways as the relevant authorities to the concerns relating to the culvert and will continue to work with them. Any further questions relating to this topic can be directed to East Sussex County Council’s Highways team. East Sussex Highways has provided the following quote in response to question 4:

“It would be helpful to provide context before the simple yes or no answer to this question. The majority of the roads in East Sussex are many decades old and were designed at the time to the appropriate design standards then. The alignment and construction of many of the older roads along with their infrastructure are also ‘evolved’ roads. An evolved road is one which was originally a track used by the population to take goods by cart or manually (pedestrians) and then over many years they became metalled (surfaced) to give them longevity. The act of discharging water off the surface enormously increases road longevity. The drainage systems mostly evolved to carry the average rain (precipitation) that existed when these routes became popular, and the

various acts of parliament made various bodies responsible for them. The early drainage systems were not necessarily designed but were provided by empirical evidence of what would work.

Today East Sussex has a network of highway drainage that has evolved and been designed to a standard relevant at the time of construction.

The increase in atmospheric temperatures due to higher levels of carbon being used has meant that more heat is stored in the air. The higher atmospheric temperature means more water vapour can be stored than previously; this has meant we have a larger volume of water discharging in a fixed period of time than previously.

As the drainage systems were designed and constructed to no recognised standard or to a standard that is now out of date then not all of them can manage the new higher levels of rainfall.

The rainfall event in January 2023 was not a regular event and the existing culvert system would not cope with it. The County Council endeavours to maintain its drainage systems to the best standard it can within the available financial resources but with unusually heavy rainfall the systems will on occasions simply not cope.

To answer the question briefly we will continue to maintain the culverts to a good standard but have no ambition to replace and/or enlarge.

Even if the culverts were enlarged, unless they were part of a wider drainage area study it would not by itself deliver any measurable benefit. There will be many parts/ segments of the system that would have to be upgraded and the cost of this would certainly be substantial.”

Additionally, we would like to note the Blue Heart project, which is partnered with East Sussex County Council and are trying out innovative ways to predict and mitigate the impact of flooding in Eastbourne and southern Wealden area. Below is a statement recently presented to our team:

“The Blue Heart project is seeking to install new water level sensors so that water levels can be better monitored. This new data will inform a new flood warning and alert system so that residents can be better notified of possible flooding. Residents will be better informed, prepared and more resilient to future risks of flooding. In the future, the water level data will be available to the public for viewing via an online web portal.

The system will also be used to better inform risk management authorities for asset management, managing flood risk, better informed decision making and understanding of flooding mechanisms.

We also have a community fund available for those with ideas and projects around the topic of climate change resilience. We have two levels of grant available, small grants of up to £500 are available at any time throughout the year. Larger grants of up to £5,000 are available during an application window each year. The next opportunity to apply for large grants will be in Spring 2024.

For more information on Blue Heart and how to get involved, please visit our website at www.blueheart.org.uk.”

To conclude with question 27, there are several phone numbers that the EA operate. Please find a list below with their descriptions:

Incident Hotline - 0800 80 70 60

You can call our 24-hour incident hotline to report the following:

- Collapsed or badly damaged riverbanks
- Damage or danger to the natural environment
- Dead fish or fish gasping for air
- Flooding from main rivers or the sea

- People taking water illegally from rivers, streams, canals, or underground sources such as wells
- Incidents at Environment Agency-regulated waste sites
- Main rivers blocked by a vehicle or fallen tree causing risk of flooding
- Poaching or illegal fishing
- Pollution to water or land
- Unusual changes in river flow

General Enquiries - 03708 506 506

Our General Enquiries can help answer any questions you have about the work the Environment Agency does, and operates from Monday to Friday, 8am to 6pm. If you are calling from outside the UK (Monday to Friday, 8am to 6pm GMT), please use +44 (0) 114 282 5312.

Floodline - 0345 988 1188

Floodline provides live flooding information and advice on how to prepare for or cope with the impacts of flooding 24 hours a day, 7 days a week.

Flood Warning Service

The Environment Agency provides an online tool to check your long-term flood risk from the sea, rivers, surface water, reservoirs, and groundwater. For more information about your flood risk, visit <https://www.gov.uk/check-long-term-flood-risk>. You may also sign up for our free Flood Warning Service at <https://www.gov.uk/sign-up-for-flood-warnings>.

Finally, we would like to ask for your help in identifying which locations were affected by the event. If you have information which you believe might help us, please complete the online MS Forms questionnaire by visiting <https://forms.office.com/e/LQGEjjsGA>.

Thank you for your patience as we have worked to collate responses to your questions across our internal teams and external partners. Our team looks forward to continuing work with Polegate residents to help raise awareness of issues surrounding flooding and to increase community resilience.

Kind regards,



Flood Resilience Engagement Advisor - Flood Resilience Team
Environment Agency | Solent & South Downs (SSD)

Questions asked by the Polegate community at the annual town assembly held 6th March 2023:

1. What caused the flooding in Polegate?
2. Who can enforce the clearing and keeping clear of the riparian rights in peoples gardens?
3. Can the EA take this on?
4. Volume of water was too great for the culvert, what will be done about this.
5. There was nowhere for the fire brigade to pump the flood water to, what will be done to stop this happening in the future.
6. The tree next to Tesco and across the road will cause a danger who will deal with this.
7. The area at Tesco, who will contact Tesco to ensure that they keep their part of the stream clear
8. When the gate was opened the flood water was gone within 20 minutes, why was the gate not opened before?
9. How does the gate work normally, what went wrong?
10. In the knowledge that there was a spring tide, why wasn't this pre-empted?
11. Were the gates working at 100% optimum performance?
12. Can the EA apply for CIL money to take out appropriate works in mitigating developments?
13. Can the EA liaise with highways where culverts run under the roads, who maintains these?

14. Who should be clearing the culverts when logs get wedged up against them?
15. Who makes sure that the debris removed and set on the bank (for creatures) is then removed so it doesn't fall into the river again and cause a blockage?
16. Can flood packs be sent to all/added to the PTC website or a link to the EA one so everyone can get one?
17. Who is the authority responsible for ensuring that areas don't flood?
18. What was the explanation about the winter and summer levels of water?
19. What is the criteria for opening the gates re salt water/fresh water mixing?
20. Who can ensure that WDC clear their land to ensure that water can flow freely and those at the Wannock mill stream?
21. Please can you send the updated riparian rights leaflet?
22. Can you list the case law that enforces action against landowners who do not maintain their parts of the water course, who enforces this?
23. How will EA manage the flood risk in Polegate?
24. Copy of living on the edge leaflet
25. How will you ensure that people in Polegate understand their responsibilities with regards to the streams on their land?
26. Who is responsible for the gates, maintaining them and ensuring that they work correctly?
27. Can you list the govt hotline and what its for (reporting incidents)
28. Liaising with Grant Moffit? 1995 report.