Cabinet Meeting: 31st October 2023

THIRD ANNUAL FLOOD RESILIENCE REPORT

Report of the Director of Place Management

1. INTRODUCTION AND PURPOSE OF REPORT

1.1 In April 2021, the first Stockport Council Annual Flood Resilience Plan was produced. It described the various roles and responsibilities of the Council with regard to flooding and flood resilience including its roles as the Lead Local Flood Authority (LLFA), Highway Authority (HA) and landowner both of greenspace and working with Stockport Homes with its significant housing assets. The work in this area supports the council's overall approach to climate change via Stockport Climate Action Now (CAN) strategy.

1.2 The second report of September 2022 provided an update on activities since April 2021 and this update continues that process.

1.3 2010 The Flood and Water Management Act (FWMA) conveyed new responsibilities to Stockport Council and other local authorities as LLFAs. Additional duties were placed in 2014 to the LLFA and the Local Planning Authority (LPA).

1.4 The Council, and other bodies can act and has powers under the Act as a Risk Management Authority (RMA) to do works, but these are not duties applicable as a LLFA.

1.5 In June 2023 Greater Manchester Combined Authority (GMCA) published the Integrated Water Management Plan in draft (IWM). A tripartite agreement is now set up with GMCA, United Utilities (UU) and the Environment Agency (EA). This enhances our existing partnership work across all bodies dealing with water. It is intended to support the changes happening to focus on sustainability, greener infrastructure, and climate change. The plan is attached as an appendix 1 and sets the priorities for the future Greater Manchester work and the creation of a joint central team who will work closely with local authorities.

1.6 In 2024, it is proposed the Schedule 3 of the FWMA is enacted in England, as it is in Wales, this may impose more duties and potential ownership of Sustainable Drainage Systems (SuDS) on local authorities. Officers are preparing Business Cases to help us understand this; however, no details have been announced.

2. ROLE AS LLFA

2.1 There is currently an approved and published Local Flood Risk Management Strategy (LFRMS) that sets out how the Council manages flood risk under the duties assigned to it as Lead Local Flood Authority (LLFA). Although the strategy is reviewed regularly and the Council is working on delivering the objectives and attributing specific action to those objectives, it is not the intention of this report to alter that but support those objectives through a resilience plan.

2.2 A fundamental aim of the strategy is that Stockport Council embraces and supports its role as LLFA, and this means taking the lead in helping with

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infrastructure development and re-development, all while working with other bodies in dealing with flood risk. The Council wants to encourage, and wherever possible, enforce current thinking and guidance and be able to provide improvements through working better together in terms of supporting communities to help themselves.

2.3 The main objectives of the strategy are:

1. To better understand local flood risk and make the best use of available information in order to better manage flood risk to people, businesses, property, infrastructure and the natural environment.
2. To reduce the potential impact and costs of flooding in the Borough.
3. To ensure resilience of local water bodies and drainage assets.
4. To ensure appropriate development in areas of flood risk.
5. To develop a collaborative partnership approach to flood risk management and cooperate with other Risk Management Authorities (RMAs) and key stakeholders working across catchments.
6. To assist communities in understanding information on flood risk and supporting themselves.
7. To encourage, support and provide flood risk management which seeks to enhance and protect the environment.

2.4 That report also describes the role of the Council as a Highway Authority. This includes the identification of the resilient network and maintenance of highway assets, regarding highway drainage including the maintenance, repair and improvements to its assets including gullies, culverts etc. The focus on this is to provide safe use of highways rather than managing flood risk. Highways provide opportunities to store and manage water.

2.5 The Council's management and use of its greenspace is also a key element of the overall approach to flood risk management; including the management of watercourses, reservoirs, etc and its greenspace provides opportunities to store and manage water.

2.6 The Council's response to/and investigation of serious flooding events in Stockport, is both a highway issue and as part of the Council's approach to dealing with emergencies. These events can impact residential or business properties and there have been significant events in most recent years including in 2021 and 2022, including very high-water levels in the River Mersey and flooding of adjacent areas.

3. SECTION 19 FLOOD EVENT REPORTS

3.1 The more serious flooding events in 2016 and 2019 have required the production of Section 19 reports, with the aim of investigating the cause of what happened and making a series of recommendations. It is intended that the Annual Flood Resilience Plan will provide a summary of overall progress against the key actions in such reports.

3.2 The recommendations from these reports and the Council's existing flood strategy could be summarised under the following headings:

1. Wider climate measures.
2. Data analysis and understanding of flooding patterns in the borough.
3. Improvements to maintenance of assets including drainage.
4. Managing flood incidents.
5. Flood risk mitigation interventions – both upstream and at flooding locations.
6. Investigations.
7. Ensuring new development appropriately manages flood risks.
8. Supporting community resilience and communications.

3.3 Like many parts of the country, Stockport has suffered from several flooding events in recent years. This increase in severity and frequency of flooding has meant that there is a greater need for additional resources to prepare and mitigate for, as well as preventing flooding wherever possible. When the Council was given the responsibility of the LLFA in 2010, the government allocated a grant of £11,000 to cover the council's additional expenditure. This funding was insufficient for the level of responsibility and required activity, resulting in that funding being removed altogether.

3.4 It is recognised that in recent years there has been a significant change to the demands placed on the services, and that what were once considered one-off events that needed to be responded to, now appear to be periodic severe flooding events.

3.5 The purpose of this and future reports are to provide updates and additional information to the Council on how we are progressing within our resources and current allocations.

4. WIDER CLIMATE ACTION NOW (CAN) INITIATIVE

4.1 The Stockport Climate Action Now (CAN) Strategy provides a broad overview of the Council's approach to mitigating the impacts of climate change, all while reducing the Council's carbon impacts. The work undertaken as part of annual flood resilience plan will contribute to this agenda.

4.2 As part of this plan, there is a commitment to improve tree planting and utilising greenspace to support its aims. One potential opportunity is to utilise greenspace areas to hold water in times of severe weather, and a project called 'Parklife' has identified several potential sites where these features could be located. One of these sites was Diamond Jubilee Park in Cheadle, and as part of the advanced funding for the Cheadle Town's Fund a water holding area has been created. The area is part of the park and can be used for recreation most of the time but should provide a water storage facility in very wet weather.

5. GENERAL FLOOD RISK MANAGEMENT

5.1 In addition to Stockport CAN, measures have been taken under the following headings and activity planned. In the past years, significant progress has been made with operational elements of flood management, which are able to be controlled with stronger management. These include data analysis, maintenance of assets (including drainage), emergency flooding planning, resident resilience information, communications and incorporating the

environment and flood mitigations in the development of our borough plans. All of these areas are on a much stronger footing than at the time of the 2019 flooding and continue to improve.

5.2 We have moved more into project phases, based on the strong connections and contribution the Council has with partners and as such UU and EA. These partners have identified key catchments as pilot schemes within IWM in Stockport, and we have been successful in bidding and implementing schemes to assist.

5.3 The focus is moving to cheaper and more nature-based interventions, rather than the hard engineering solutions we have used in the past. Hard engineering is frequently more expensive and often unsustainable. The latter does not provide the wider environment benefits such as helping improve water quality, biodiversity and amenity. It also often passes the problem downstream to the next community rather than addressing the fundamental cause of flooding.

5.4 We are encouraging more nature-based solutions and surface-based control, as opposed to buried assets and subterranean tank solutions.

6. PARTNERSHIPS

6.1 In partnership with other RMAs, officers have actively engaged with and encourage cross partnership collaboration to work on flood risk, as well as known (or potential) issues. Key partners include:

1. Greater Manchester Combined Authority (GMCA).
2. Environment Agency (EA).
3. Greater Manchester Flood Risk Officers Group (FROG).
4. United Utilities (UU).
5. Upper Mersey Catchment Partnership (UMCP).

7. PROGRESS THIS YEAR

7.1 <u>Mapping, Reporting and Engagement</u>

7.1.1 Officers continue to develop and enhance the Council's approach to recording data and being able to analyse it, while also continuing to record asset information centrally when information is received from inspections and investigations. The "Report A Flood" system now directs the key information to the most appropriate teams and officers; to either provide advice, assist or investigate.

7.1.2 Stockport has many culverted watercourses with complicated ownership responsibilities. The programme of surveying and mapping these assets has now ceased, and we now focus on responding to issues or reports. Support and advice are provided regarding how culvert owners can develop ongoing maintenance plans for their assets and where necessary enforcement action may be required.

7.1.3 De-culverting as much as possible is encouraged as this can assist in restoring natural flows and can enhance the environment to assist in biodiversity and water quality. Culverted watercourses present a major maintenance liability and create unnecessary flood risk. As such, a list of over one hundred sites has

been identified in open spaces, where de-culverting and other nature-based interventions could assist water management.

7.1.4 In the past year, officers have provided Natural Flood Management (NFM) Schemes across the borough and have been successful in bids through the Local Levy Funding in Greater Manchester. These have been supported by the EA and we are looking at further funding through UU and are actively work with them.

7.1.5 We continue to support GMCA in helping to develop and write a Highway SuDS guide. This is where good examples are shown on highway schemes, to encourage highway designers to incorporate SuDS in all designs, rather than the conventional buried asset solutions.

7.2 Catchment and Strategic Approach

7.2.1 In recent years there have been significant flooding episodes; both nationally and locally, which has led to research into appropriate interventions. There is a growing awareness that more mitigation needs to take place across wider catchment areas, to capture and slow the flow of water, as opposed to just focussing on mitigations at the flooding location. This is still a developing area with academic and practical demonstration projects still being supported. Good practice is being shared via national agencies e.g., the EA and regional flood forums for Members and officers.

7.2.2 We recognise that the catchment approach is now considered the most viable and effective mechanism, but the measures are small in comparison. The strategy is developed slowly, but interventions although small, could be frequent and deliverable.

7.2.3 Flood mitigation schemes can include replacement of natural habitats, ‘Slow the Flow’ approaches, changes to farming and land management techniques. In more urban areas, rain gardens, permeable driveways, tree pits and water storage areas can all assist in managing water. This all aligns with Stockport CAN. Providing green and blue spaces assists with reducing heat island effects.

7.2.4 Natural erosion where possible allows water, streams and rivers to follow their natural routes, all while creating storage and slowing water down. Conventional thinking was to try and straighten and engineer rivers, to use the land more effectively. However, that damages the environment and speeds up water, thus reducing the ability of self-cleansing. Meandering rivers are being reintroduced in many parts of the country, which have been proved to assist soil and agriculture.

7.2.5 Areas of wetlands and moss land have been previously disregarded, often being drained and filled in (and that would also include ponds). Such areas are now realised to both store, and hold up water significantly, but also provide major advantages for biodiversity and carbon capture. We are working with partners to identify lost wetlands or provide more in the borough. In addition, we want to find ghost ponds and record these.

7.3 Planning Applications

7.3.1 Officers advise the Local Planning Authority and developers on flood risk and more importantly on sustainable drainage (SuDS) being incorporated into

planning applications. SuDS is now mandatory in Scotland and Wales, and it is expected to be formally legislated in England next year.

7.3.2 Our guidance, and advice for developments seeking approval for planning, is now more focused on removing unnecessary volumes of water from sewers that can assist in reducing flood risk and water pollution. The use of manageable and sustainable techniques within the location of the developments, are usually based on Source Control and accessible surface-based features.

7.3.3 Approximately 260 planning applications per year are assessed, and almost all applications will need LLFA interventions to seek alternative approaches to include more sustainability. The value of this to the Council is that every development and redevelopment is taking measures to reduce flood risk to others, by not being able to simply pass the water elsewhere and it is managed, slowed, and treated.

7.4 Projects and Schemes

7.4.1 Micker Brook and Ladybrook Catchment.

7.4.2 The Council has supported the Upper Mersey Catchment Partnership (UMCP). External funding has given the group the opportunity to capture ideas of measures to support and enhance the catchment around Ladybrook and Micker Brook, which will include flood mitigation. This programme is overseen by the team and has been developed to deliver information and guidance on the catchment. This involves a series of projects conducted by the partners, with the aim of this programme being to improve the water environment for people and wildlife. This would be done all while slowing water flow and reducing flood risk in many hotspot areas. There is a programme of work taking place in Lyme Park including creation of leaky dams. We were also successful for grants to extend and enhance areas in Bruntwood Park and Cheadle Golf Club; to provide more Natural Flood Management on two of the tributaries to Micker Brook.

7.4.3 Ladybrook, Bramhall.

7.4.4 Council officers continue to work with the EA to try to understand and manage the risk of flooding episodes. The EA this year completed a review of the fluvial flood risk along the river. The data does not significantly change any aspects of the flooding expected, and next year the EA will carry out further optioneering that may also tie in with the Micker Brook pilot scheme. Officers have considered the potential for a localised scheme around the Brookdale Cub and Theatre site.

7.4.5 The Micker Brook Place Based Pilot Project.

7.4.6 UU is creating schemes in the region and have chosen to work exclusively on the pilot with the UMCP that we support, which indicates our successful partnership. UU has selected rivers for special attention, these being: the River Tame, River Bollin and Micker Brook (that all affect Stockport). The majority of the upstream catchment work lies outside our borough, and so we have a watching brief. However, we do play a key role in the working and steering group for Micker Brook working with the EA, UU and other partner to identify key deliverables, and our work in supporting and delivering schemes has been on-going.

7.4.7 Schools Hill Project.

7.4.8 The Council has been successful in putting in bids for funding to support schemes along the Micker catchment, with more leaky dams in Norbury Brook. A provision of a wider wetland and leaky dams in Bruntwood Park, with more leaky dams planned in 2023 and more work around the watercourse in Cheadle Golf Club.

7.4.9 Poise Brook Project.

7.4.10 Poise Brook catchment has had much attention in past years. Last year the EA was persuaded to take a lead on a wider catchment project, and also as a result of that, UU has also chosen this as another Place Based Pilot Project collaborating with the officers involved. The EA has recently announced that the leading consultants in flood risk have been appointed to assist the project, which is being assessed and planned over 5 to 10 years. This year, as part of the Poise Brook catchment, the Council bid, won and completed works around Cown Edge in Offerton, installing Leaky Dams and secondary channels. More bids have gone in and been approved for Leaky Dam works in Torkington Park, which was identified as part of the Parklife project reported last year.

7.4.11 Chorlton Brook Cheadle (Lavington Avenue).

7.4.12 Conversations regarding Chorlton Brook are being held between the LLFA and EA. Chorlton Brook is a Main River that is mostly culverted and is shown as one of the highest flood risk areas in the region, with over 300 properties at some risk. Some past interventions and work by both parties, will have limited the impact and internal flooding is not as frequent as other areas. However, it is clear the risk remains, so the EA will decide in the future if they will lead on this. The LLFA has identified some potential mitigation measures to assist with storing and slowing water before it flows into the culvert, causing it to surcharge. One scheme has been submitted to the EA and approved to provide swales and detention areas near to the usually dry watercourse in Lavington Avenue playing fields, which is planned to be completed this year.

7.4.13 Romiley Flood Mitigation Project.

7.4.14 Works have been completed to the Victorian culverted masonry watercourse at Dye Lane in Romiley. The watercourse runs from the centre of Romiley near Guywood Lane, to the River Goyt.

7.4.15 Buckingham Road West Heaton Moor.

7.4.16 Works to divert a culverted watercourse under the highway was completed this year.

7.4.17 Lower Fold Marple.

7.4.18 Officers worked in collaboration with Mersey Rivers Trust and landowners to develop and build a scheme to slow and hold water up before it came onto Lower Fold. This was started last year and completed in February 2023.

8. ENFORCEMENT

8.1 Although the LLFA and EA have powers and limited duties to ensure drainage is fit for purpose and working correctly, this is an extremely costly and time-consuming process. Officers therefore take a pragmatic approach and support residents to find solutions in the first instance utilising their knowledge and

engineering expertise. However formal enforcement action is taken where necessary where the scale of the problem for neighbours is significant and the owner has been unwilling to work with the council to resolve the situation.

9. CIVIL RESILIENCE PLANNING.

9.1 Officers are aware of the number of significant flooding incidents that have taken place in Stockport in recent years. We have worked together to update the Emergency Flood Plan for the Council and partner agencies. Joint discussions and exercises have been held and each major incident has been reviewed for lessons learnt. Each week the Flood Guidance Statement, issued by the Flood Forecasting Centre (FFC) is distributed to key council officers (and those on call), to provide any intelligence about potential weather-related incidents.

9.2 Improved information is in place meaning officers are aware of locations vulnerable to flooding and can provide targeted information warning of any risks with advice about mitigation measures.

9.3 The council has developed much improved information and self-help guidance available to residents both in advance of and during flooding incidents. This information is reviewed following each incident. Details can be found via the attached link. Flooding - Stockport Council

10. SUDS APPROVAL BODY (SAB)

10.1 It is expected that Central Government will confer that the LLFA also becomes the SAB. This will be more onerous on the Council in respect to duties but should attract additional fees from development. A strategic business case is being developed to highlight the changes and impact of this to the Council as LLFA.

10.2 In addition to our current advisory role, it is possible that the SAB will have to take ownership and manage some SuDS features, such as ponds and swales. The other substantial change will be that officers will be responsible for site inspections and enforcement.

11. COMMUNICATION AND GUIDANCE DOCUMENTS.

11.1 A number of guidance documents have been completed, including a Developers' Guidance Document on flood risk and drainage. These are being issued on request, whilst we are trying to establish how this can be better accessed. This is to assist the Planning Application process.

11.2 Information in a leaflet style format has been developed to advise Watercourse riparian owners of their legal duties and the Council's role. Guidance notes have also been drafted. On a variety of topics including:

1. Sustainable Drainage Systems (SuDS) Guidance:
    1. School SuDS.
    2. Garden SuDS.
    3. GreenSpace SuDS.
    4. Highway Design SuDS.
2. SuDS Case Studies:

1. Buxton Road.
2. Barnes Hospital.
3. Covent Garden.
4. Cown Edge Way Leaky Dams.
5. Lower Fold Leaky Dams.
6. Midland Road.
7. Redrock.
8. Stockport Sorting Office.
9. Werneth Road Woodley.
10. Werneth School.
11. Woodford Garden Village.

3. Other Guidance:
    1. On the Waterfront: Responsibilities in relation to watercourses on or near your property.
    2. Groundwater Flooding.
    3. Planning Application Standard Response (Flood Zones 2 and 3).
    4. Cellar and Basement Flooding.
    5. Cross Connections.
    6. Enforcement Protocol.
    7. Norbury Programme: A scheme to review Micker and Ladybrook catchment.
    8. Slow the Flow.
    9. Pond Conservation.
    10. Property Level Resilience (PLR).
    11. The Role of the Flood Risk Management Team

12. FUTURE PRIORITIES

12.1 Whilst there has not been any local significant flooding in recent months flooding risks remain. Supporting residents and providing advice on how they can maximise their resilience is a key priority for the council. In addition, we have continuing to work on a variety of physical and modelling projects.

12.2 <u>List of Future Projects</u>

12.2.1 Poise Brook Catchment Project

12.2.2 The EA is leading on the long-term project (2022 – 2027) for Poise Brook, working with UU, Council officers, and possibly the Mersey Rivers Trust, all while utilising consultancy support. The project will investigate issues relating to flooding in Hazel Grove and Offerton (mainly around Hazelwood Road and Bean

Leach Road), to identify potential solutions which could be the subject of future funding bids.

12.2.3 Romiley Flood Mitigation Project

12.2.4 This will continue through the following year. As a result of the study, we hope we can develop ideas for schemes, with the intention of looking further at the upstream areas higher in the catchment. This is opposed to providing disruptive, expensive and unsustainable engineering solutions in the District Centre.

12.2.5 Ladybrook, Bramhall

12.2.6 Officers will continue to work with the EA to develop a better understanding of the issues impacting on this area and possible mitigation options. They will also continue to seek funding for any identified mitigation measures.

12.2.7 Woodbank Park

12.2.8 Officers are working up a scheme to assist the park with drainage by managing the water more within the park. It is intended to explore and develop a bid through UU's Green Recovery Fund with the intention to remove water from drains and sewers.

13. FLOOD MITIGATION SCHEMES

13.1 Officer time has been spent to identify potential projects across the borough to potentially work up to schemes and to share with our partners for future bid opportunities. These include de-culverting and providing more appropriate and sustainable solutions.

14. RESERVOIRS IN STOCKPORT

14.1 Stockport Owned

14.1.1 In response to the Todbrook Reservoir Dam collapse in Whaley Bridge and the possible potential impact, the Secretary of State for Environment, Food and Affair has notified all undertakers of large reservoirs, that all large reservoirs require a robust and current on-site flood plan. The Direction allowed 12 months from the date of instruction (22nd April 2021), to develop a plan and a further six months for that plan to be operational. To comply with the requirements of the Direction and the Reservoirs Act 1975, the Council needs to develop and maintain flood plans for the following reservoirs:

1. Reddish Vale.
2. Etherow.

14.1.2 Plans have been developed and become operational. In association with this a package of improvement measures is being identified.

14.1.3 Whilst the reservoirs at Alexander Park are not considered a large reservoir, the Council has always treated them as such because of their location and has plans to develop a plan over the coming 2023/24 period.

14.2 Private reservoirs in and around Stockport.

14.2.1 There is one privately owned reservoir within Stockport at Roman Lakes, Marple, who will also have had to develop their own flood plan.

14.2.2 There are also a number of reservoirs in adjacent areas which could affect Stockport residents if issues occurred, including: Whaley Bridge, Lyme Park and Disley. It is intended that contact is made with the organisations responsible for these, to discuss their proposed plans, in the next few months.

14.2.3 Officers are also collating a list of all water bodies and their owners within Stockport, to assist in dealing with potential future incidents.

15. RESOURCES

15.1 In recent years the Council has significantly increased its focus on flood risk mitigation; creating a small team to focus on this area of work and also on highway drainage issues within Highway Assets. The team is utilising some funding within the transportation capital programme, as well as collaborating with partners and developers and seeking grant funding.

16. HIGHWAY DRAINAGE

16.1 The revised approach to highway drainage and gully emptying has used a planned approach that is becoming embedded as a routine activity and the website has been updated to reflect this.

16.2 The planned approach to gully emptying enables more frequent visits to be made to the known higher risk area and the monitoring systems allows the identification of more complicated issues which can then be programmed for further investigation.

16.3 Funding within the transportation capital programme allows a limited number of larger highway drainage improvement schemes to be funded each year utilising maintenance funding

16.4 Further details of how the council prioritises gulley cleansing can be found at Drain cleaning operation plan - Stockport Council

16.5 There are a number of roads under railway bridges in Stockport which have been lowered to allow higher vehicles to pass underneath. This creates potential drainage issues that are difficult for motorists to appreciate the depth of. In the past year we have undertaken work at Lingard Lane, Hume Hall Road and Crossley Road to improve the existing drainage conditions. At Crossley Road we have installed automated warning signs and are now undertaking a more detailed study of the factors involved.

16.6 Work continues to develop solutions for the flooding issues on the A555. Since the road was first opened, maintenance to the storage tanks has been undertaken which has returned them to their original capacity, remedial works to the ponds have been carried out and we have replaced the existing pumps that were in situ from the original stretch of road. Negotiations with the contractor and the Environment Agency are continuing with a view to undertaking further improvements in the near future.

17. FINANCIAL AND RISK ASSESSMENT CONSIDERATIONS

17.1 The highway drainage improvements and flood risk mitigation schemes are funded utilising grant funding, CRSTS maintenance funding or HIP. The gully emptying and minor improvement schemes.

18. LEGAL CONSIDERATIONS

18.1 The Council utilises the relevant legislation to investigate flooding, undertake flood mitigation schemes and manage highway drainage

18.2 The schemes will be subject to agreements with Network Rail, TfGM and DfT these will be subject to consideration by the legal team.

19. HUMAN RESOURCES IMPACT

19.1 There is no expected human resource impact.

20. EQUALITIES IMPACT

20.1 There is no expected equalities impact from this type of work although related equality assessments may need to be undertaken for specific projects.

21. ENVIRONMENTAL IMPACT

21.1 Related environmental assessments may need to be undertaken for specific projects. The proposed approach to flood mitigation may provide additional biodiversity, improved water quality and local environmental improvements and supports CAN priorities.

22. PROPOSED RECOMMENDATIONS TO CABINET

22.1 Cabinet are requested to note the work undertaken to improve flood resilience in Stockport and support the continued partnership working and investment in these area.

BACKGROUND PAPERS

Anyone wishing to inspect the above background papers or requiring further information should contact Sue Stevenson on Tel: 0161-474-4351 or by email on sue.stevenson@stockport.gov.uk