

## **Flooding & Emergency Resilience in Barnsley**

### **1.0 Introduction**

- 1.1 In accordance with national guidance, Overview & Scrutiny Committees have a formal role to play in overseeing the way that public bodies work together to tackle flood emergencies. Therefore, the purpose of this report is to inform the Overview & Scrutiny Committee of what measures are in place to make Barnsley more resilient to flooding events. The report also provides an overview of the most recent flooding event which occurred on 7<sup>th</sup> November 2019.
- 1.2 In addition, in 2016/17 the Overview & Scrutiny Committee Flooding Task & Finish Group made several recommendations and this reports sets out the progress made against these recommendations to date.

### **2.0 Background**

- 2.1 A flood can be defined as the temporary covering by water of land not normally covered with water.
- 2.2 The different types of flooding that may affect the borough are:-
- fluvial flooding which is a result of water levels exceeding the bank level of a river (a map of Barnsley flood risk areas is shown in Appendix 1)
  - pluvial flooding which is caused by water flowing over the surface of the ground or ponding before it has reached a watercourse or drainage system. This often occurs when the soil is saturated and natural drainage channels or artificial drainage systems have insufficient capacity to cope with additional flow
  - surface water caused by rainwater (including snow and other precipitation) which is on the surface of the ground (whether or not it is moving), and has not entered a watercourse, drainage system or public sewer
- 2.3 Flooding can be caused by run-off water from fields and over full rivers; blocked drains; and cracked or burst water pipes (owned by Yorkshire Water).
- 2.4 Barnsley Metropolitan Borough Council (BMBC) is responsible for managing flood risk in Barnsley, from surface water, groundwater and ordinary watercourses. They work alongside the Emergency Services, the Environment Agency, Met Office and utility companies to tackle flooding across the borough.
- 2.5 Historically, there had been a few small-scale flooding events within the borough. Usually, these have affected Darton village which is generally the first community to be affected by high water levels in the River Dearne catchment area and acts as an informal 'barometer' for flooding across the borough. This area is known to have flooded during the 1950s, 1960s 1970s and also in the autumn of 2000, but the impact of these events was relatively small scale.
- 2.6 In addition, a small number of properties in the upper Don catchment in Penistone area were flooded during flooding events in the 1950s and 1960s.
- 2.7 Apart from fluvial and pluvial flooding events during 2007-8, other flooding events have been documented over past decades; however very few records were kept and much of the information about these were anecdotal reports from those affected at the time.
- 2.8 In June 2007, Barnsley was affected by heavy and sustained rainfall which continued for a 10-day period leading up to the first flood. Many of these neighbourhoods had not experienced flooding before and were poorly prepared for responding to flooding. In total, 352 properties (including commercial properties) flooded.

- 2.9 During the two flooding events in June 2007, approximately four times the seasonal average rainfall for the area was experienced. During a 24 hour period, between 14 & 15 June, a total of 118mm was recorded at a local weather station, with 68mm recorded in the north-west of the borough at Cannon Hall, Cawthorne. The intense rainfall continued during the days leading up to 25 June when a further 80mm was recorded at Cannon Hall. This additional rain fell onto ground which was already saturated.
- 2.10 A total of 48 separate localities in the Barnsley were affected by the flood where many properties were flooded twice in quick succession. In addition to entire neighbourhoods being inundated, many of these areas comprised of single properties or small clusters of residential properties. Even so, six distinct communities were severely affected, namely:
- Darton, on the River Dearne
  - Lundwood, on the River Dearne
  - Darfield Bridge, on the River Dearne
  - Bolton-on-Deerne, on the River Dearne
  - Low Valley, on the River Dove
  - Aldham Bridge, on the River Dove
- 2.11 The impact in these localities ranged from between 50mm up to one metre of water flowing into properties. In many cases properties were affected by diluted, untreated raw sewage which had contaminated the flood waters, when waste water treatment installations and combined sewers were overwhelmed by the run-off flows.

### **3.0 Barnsley Council's Response to the Floods & Water Management Act 2010 (FWMA)**

- 3.1 A comprehensive independent review of the 2007 summer floods was conducted by Sir Michael Pitt. The review provided recommendations to improve flood risk management in England.
- 3.2 The Floods & Water Management Act (FWMA) 2010 was introduced by the Government in response to the recommendations of the Pitt Review. The main changes in approach to flood risk management in recent years have all been as a result of the legislation, the aim of which (partly) is to clarify the legislative framework for managing surface water flood risk in England.
- 3.3 The Act clarifies the functions of the different authorities that have a role in managing flood risk. This included identifying authorities (i.e. the Council) as the Lead Local Flood Authority (LLFA) within borough governance areas.
- 3.4 In response to the Act, BMBC, as LLFA, has produced a number of strategies and reports to help meet the Council's duties to manage local flood risk. These include the Preliminary Flood Risk Assessment (PFRA) Report and the Local Flood Risk Management Strategy (LFRFMS).
- 3.5 The Preliminary Flood Risk Assessment (PFRA) Report has been prepared to assist the Council to meet their duties to manage local flood risk and deliver the requirements of the Flood Risk Regulations (2009). The PFRA process is aimed at providing a high level overview of flood risk from local flood sources, including surface water, groundwater, ordinary watercourses and canals. The methodology for producing this PFRA has been based on the Environment Agency's Final PFRA Guidance and also the Department for Environment, Food & Rural Affairs (DEFRA) guidance on selecting Flood Risk Areas.
- 3.6 The Local Flood Risk Management Strategy (LFRMS) sets out how BMBC will work alongside other Risk Management Authorities (such as the Environment Agency, water & sewerage companies), the private sector and local communities to deliver improvements together. This document provides the framework for how the Council manages local flood risk in Barnsley with a four-part approach of prevention; management; response and recovery; and learning and review.

#### Prevention

- 3.7 The Council endeavours to avoid flooding, wherever possible through appropriate design of new developments, together with the maintenance and management of existing surface water drainage

infrastructure, namely:

- the Council will ensure that it adequately maintains its own drainage infrastructure and watercourses on land which it owns
- developers are required to ensure that the drainage on proposed developments is effectively managed and does not cause an adverse flooding impact on the area surrounding their site
- private land owners understand their responsibilities for the management and maintenance of watercourses on their land

### Management

3.8 It is recognised that on occasion, working procedures and efforts can be overwhelmed by the conditions. When this happens, the Council will endeavour to minimise the impact on communities by:

- promoting resilience in the business community and supporting the development of their own continuity plans before flooding occurs
- reduce the reliance on council services during flooding events
- ensure that businesses continue to operate and support the wider community during flooding

### Response & Recovery

3.9 When flooding does happen, the Council will take a risk-based approach to response and priority will be determined on the basis of:

- those individuals and communities that are most in need or least able to help themselves
- local infrastructure that will enable local communities and council service provision to get back to normal as soon as possible after a flood

3.10 The Council promotes an ethos that empowers all parts of the community to become more resilient to future flooding events. It is expected that residents, land owners and businesses in the borough understand the flood risks that affects them and that they take appropriate action to prevent flood damage to their homes and property, preparing flood plans to make themselves more resilient if flooding occurs.

### Lessons Identified & Review

3.11 Following a flooding event, the Council will review its response and revise its plans as necessary. As part of this, the Highways Department, as LLFA, will review the sources and causes of flooding, with a view to making amendments to the Flood Risk Management Strategy.

## **4.0 Current Position**

4.1 The management of flood risk in the borough is key to the Council being able to realise its aspirations for economic growth. Achievement of those aspirations requires a partnership approach to ensure that development is sustainable and works to reduce flood risk.

4.2 As defined in the Local Flood Risk Management Strategy, the Council aims to sustainably reduce the impact of flooding in Barnsley and promote Barnsley as a safe place to live, work and travel to, and supporting future sustainable growth.

4.3 After the floods of 2007, the Council acknowledged that greater investment was required in its own assets to improve resilience and prevent flooding of properties. In light of this, Cabinet approved an investment of £1M into the repair and maintenance of its drainage assets in 2008/09 financial year over and above its normal works budgets. These works were carried out to better protect some of the communities worst affected by the floods.

4.4 Barnsley has also been successful in gaining funding from the Environment Agency for a number of schemes including the installation of Property Level Flood Protection equipment in areas worst affected by flooding and improvements to existing drainage infrastructure. The Council continues to work with colleagues at the Environment Agency to secure funding for other future projects.

- 4.5 The Council has worked hard to improve the resilience within the communities affected by undertaking better maintenance of drainage assets; the installation of physical measures such as flood barriers; better organisation and support.
- 4.6 Work has been done with communities in vulnerable locations including Darfield Bridge, Low Valley, Darton and Low Barugh to provide flood stores filled with equipment for the community to help themselves during flood events. The Council has also worked with these communities to produce flood plans to be acted on in the event of a flood; however to date only 2 groups have submitted their final plans.
- 4.7 Procedures are now put in place so that should a severe weather warning be received then checks are carried out and any necessary works undertaken at known flooding hotspots to minimise the effects of any excessive rainfall.
- 4.8 BMBC's Highways Department, acting as LLFA, works closely with colleagues in the Planning Department (Planning Policy and Development Management) as well as with developers to ensure that the management of surface water run-off as a result of new development sites is achieved in a way which does not have a negative flood risk impact on the site and the surrounding area.

#### Flooding Event on 7<sup>th</sup> November 2019

- 4.9 On Wednesday 6<sup>th</sup> November 2019, the Met Office issued an amber rain warning at 23:44 followed by a Flood Forecasting Centre amber flood alert for surface water at 00:36 on Thursday 7<sup>th</sup> November 2019. As a result, this placed the Council's flood response at 'Level One Be Prepared'. The following section provides an account of the events that followed:
- 4.10 **Response Thursday 7<sup>th</sup> and Friday 8<sup>th</sup> November 2019**
- In response to the rain fall the Environment Agency issued Flood Alerts for the upper River Don catchment and River Dearne catchment at 10:45 and 10:55 respectively on Thursday 7<sup>th</sup> November 2019 - this maintained the Council's flood response at Level One
  - Highway drainage issues increased steadily over the morning and on this basis the Council's Emergency Control Room was opened at 12:00 staffed by both Council and Berneslai Homes managers with staff identified who could be rostered through to 19:00 on Friday 8<sup>th</sup> November
  - An operational control room was established at Smithies Lane depot with road closures, tactical sandbagging and highway drainage issues managed from the depot
  - The operational control room deployed small teams to key areas, namely received requests from contact centre and known surface water flooding locations. River levels were kept in check using online system and site visits
  - Operational control received c185 jobs over the day and evening; closed a total of 20 roads; installed flood board defences to some 14 sites; and tactical sandbags were deployed to 14 locations
  - Communications response implemented, run from the Council's Emergency Control Room, providing information and advice to residents, staff and members. Providing both a local and regional South Yorkshire warning and informing response
  - Flood Warnings were subsequently issued for the
    - River Dearne at Darton and Barugh (12:07)
    - River Dove from Aldham Bridge to Low Valley including Wombwell Ings Caravan Site (14:37)
    - River Dearne at Burton Grange and Lundwood (16:30)
  - The issue of the flood warnings raised the flood response to 'Level Two Take Action'
  - The flood warnings were gradually removed on Friday 8<sup>th</sup> (along with the flood alert for the River Don) and Saturday 9<sup>th</sup> November; and the flood alerts Monday 11<sup>th</sup> November
  - Flooding response continued throughout Thursday 7<sup>th</sup> and then overnight and into Friday 8<sup>th</sup> November and included:
    - Issuing of warning and informing messages to residents, staff and Members via both Corporate Communications and the Contact Centre
    - Road closures
    - Tactical issuing of sandbags to mitigate highway drainage issues where the use of sandbags was assessed as likely to be operationally effective
    - Being prepared to offer emergency accommodation

- Being prepared to support vulnerable people

#### 4.11 **Recovery Friday 8th November to present**

- Flood Recovery Group met on Friday 8th November and then daily until Friday 15th November reverting to weekday meetings from Monday 18th November
- Two main areas impacted by flooding were identified: Low Valley and Burton Grange with Stronger, Safer and Healthier Communities and Berneslai Homes respectively taking the lead in these areas
- Safer Neighbourhood Services and Berneslai Homes teams undertook door to door surveys to better understand impact of flooding and determine insurance cover etc.
- Initial support was provided to residents where this was not being provided by insurers:
  - 'Clean and clear' for flood affected properties (including waste removal, provision of cleaning materials and jet washing of affected sites)
  - Emergency/alternative accommodation
  - Utility safety checks and restoration of utilities
- Individual post flooding needs assessments were undertaken or offered to be undertaken in each property affected by flooding
- Subsequently a range of additional support has been offered to affected residents including support to vulnerable adults
- In relation to affected Council properties at Burton Grange Berneslai Homes have:
  - Assessed each property for repairs and maintenance needs
  - Undertaken urgent repairs to allow homes to remain habitable
  - Begun the process of remedial works on affected properties
- Communications moved into recovery mode, providing residents, staff and members with latest information and updates around recovery efforts, access to advice around funding and emotional support etc.

#### 4.12 **Local, regional and national co-ordination**

- The response and recovery have been and continue to be a co-ordinated effort between the Council and Berneslai Homes
- Throughout this incident the Council has co-ordinated its response and recovery with partners in South Yorkshire Local Resilience Forum (SYLRF)
- Burton Grange was raised at 11:30am at the Strategic Co-ordination Group of the LRF meeting, requesting a site visit from Yorkshire Water Services and BMBC
- In addition to borough response and recovery efforts the Council has provided multi-service mutual aid to Doncaster MBC where the worst flooding impacts were seen in South Yorkshire
- The Council has ongoing dialog with regional and national politicians (including Secretaries of State) and HM Government departments regarding the recovery impacts and efforts
- The Council is leading the SYLRF Recovery Co-ordination Group for the County

#### 4.13 **Summary of financial support available to affected residents and businesses**

- Council Tax and Business Rates relief for affected properties
- Assessed offer of £250 for each affected household from the Council for immediate hardship needs with these payments beginning on Thursday 14th November
- £100 was made available from South Yorkshire's Community Foundation (SYCF) flood response fund which Barnsley Community and Voluntary Services (CVS) were offering support to access. Further means-tested funding will be made available at a later date, for which details are yet to be confirmed
- £500 for each affected household from the Government's Communities and Business Recovery Scheme, with these payments beginning on Friday 15th November
- £2,500 for each affected business from the Government's Communities and Business Recovery Scheme
- This information has been provided to residents direct via a printed information sheet, as well as promoted via our website and social media channels. It was also covered on the front of the Barnsley Chronicle on Friday 15 November

#### 4.14 **Summary of flooding impacts** (please note that a) this is subject to change as further information and intelligence is gathered from communities and b) there may always be the possibility that other properties were affected by flooding however, where this is a private household who are dealing with their insurer for recovery the Council may never be aware of any flooding that took place)

- Predominantly two areas were affected by flooding with a third, Darton, to a lesser extent:
  - *Low Valley*

- *Burton Grange*
- A number of residents were initially provided with emergency accommodation however, none were placed in reception/rest centres
- A number of affected businesses have been identified albeit Enterprising Barnsley are undertaking further and ongoing assessments of the impacts on the local business community

## 5.0 Implications for Local People and Organisations

- 5.1 The Council appreciates the financial impact flooding can have on residents, especially those who are not covered by insurance. Flood Re is a joint initiative between the Government and insurers which aims to make the flood cover part of household insurance policies more affordable; however the Council is aware of a number of uninsured properties. As identified earlier in the report, as a result of the most recent flooding event both the Council and national government have set-up financial support schemes for affected residents.
- 5.2 The Council understands flooding can have a severe impact on people's physical and mental health, regardless of their age. There are many different ways flooding can affect physical health from minor ailments to severe effects. The psychological trauma experienced by flood victims can have a lasting impact on their emotional wellbeing.
- 5.3 In some circumstances, flooding could also lead to a water shortage, limiting access to drinking water, if water becomes contaminated, with the increased risk of waterborne infections and diseases. This has not occurred as a result of the most recent flooding event; however the Council is a stakeholder in public health and continues to work closely with other public health stakeholders locally to address the physical and mental health impacts which arise as a result of flooding.
- 5.4 As a result of the most recent flooding event, the process has now begun of debriefing the response and initial recovery with a view to identifying organisational learning. This also includes South Yorkshire wide learning through the SYLRF. Investigation into the source of flooding in primary affected areas is currently being undertaken and it would be premature at this stage to make presumptions regarding this.
- 5.5 Since the floods of 2007, BMBC has spent approximately £2.2 million over and above its normal maintenance budgets on extra flood defence works. This has been a major contributing factor to reducing the number of flooded properties from approximately 352 in 2007 to approximately 100 in 2019 with similar river levels recorded, particularly at the depth gauges on the River Dearne at Darton and Grange Lane and on the River Dove at Worsbrough.
- 5.6 The 'recovery offer' to residents is being viewed in light of the offer made in this incident as outlined above. Officers welcome the views of committee members on the response to the most recent flooding event in order to inform future policies.

## 6.0 Update on the Response to the Recommendations of the OSC Flooding TFG

- 6.1 In 2016/17, the Overview & Scrutiny Committee's (OSC's) Flooding Task & Finish Group (TFG) undertook a review of what has been learnt since the 2007 floods; what has been put in place to prevent future flooding; as well as make recommendations for continued improvements. The table below shows the recommendations made by the group and the current position:

RECOMMENDATION	CURRENT POSITION
1. An All-member information brief (AMIB) is held so that all Members are aware of, and are updated in relation to, key flood risk management issues, including supporting community resilience	Complete - carried out as part of Highways Check and Challenge session with members
2. Barnsley Leadership Team (BLT) to engage in Emergency Planning to ensure all departments are prepared	Work has been ongoing with BLT; however this will not be finalised until work in relation to recommendation 5 is complete. The recent floods on 07/11/19 will also impact

	on this
3. Emergency contact information card to go into the new members induction pack	Members are aware of emergency contact procedures and briefed on use of Members Enquiries email service
4. Intelligence regarding culverts, trash screens and flood risk spots should be shared with Ward Alliances, enabling them to monitor and report issues	Information shared with Ward Alliances
5. Agree Council-wide principles regarding the response in a flooding event	Work had been drafted for discussion with BLT; however this will not be finalised until review has taken place of the recent floods on 07/11/19. Officers welcome the views of OSC Members on the recent response to inform this work
6. Ensure local flood plans are finalised	Work ongoing with members and affected areas, however currently only 2 groups have submitted their revised local flood plans
7. Investigation regarding the residents' flooding concerns in the Dearne to be followed up	Complete

6.2 Significant steps have been made to address these recommendations; however there are still a number of outstanding issues to be addressed. Relevant officers are continuing to work on these with a view to completion at the earliest opportunity whilst incorporating the learning from the most recent flooding event.

## 7.0 Future Plans & Challenges

7.1 There are difficult challenges ahead as it is not possible to do everything, and part of the Council's strategy is to help flood prone communities to help themselves. In practice, the Council will not undertake all the work and has worked with communities to understand that resilience and self-reliance can better manage flooding to minimise any impact it may have. In light of recent events, the Council will also review procedures for responding to future flooding.

7.2 The Council's strategic approach endeavours to reduce the risk of flooding, whilst acknowledging that in some cases the risk cannot be totally eliminated. The Council will continue to work with affected communities and local residents to raise awareness of their responsibilities and to help them to help themselves rather than placing their sole reliance on the Council.

7.3 Under Section 21 of the FWMA, the Council has a duty to develop and maintain an Asset Register and Record that documents information about assets which are deemed to have a significant impact on flood risk locally. It is also recognised as good practice to have maps of all drainage assets throughout the borough. Currently, the Council is working with professional partners to collect this data, and historical information has been retrieved, however, there is still a significant amount of work required to enable these duties to be carried out. The Council as LLFA does not currently have the resources available to carry out this work. Not only does this have an impact on day-to-day maintenance of the asset, but has a significant impact on the Council's ability to draw down funding from external sources to carry out works.

7.4 Gullies throughout the borough are cleansed on a 10 month cycle by the Council's in-house Operations team. However, there has been a historical lack of cleansing of drainage kerbs due to difficulties with access and lack of resources which has led to significant flooding of the highway network over a number of years. This has now been recognised and Cabinet has approved an additional £1M for the 2020/21 financial year to carry out cleansing and other associated maintenance works to these features and other assets.

7.5 BMBC has invested in the rolling out of the "Pin on a Map" reporting system via the Council's website. This has made it significantly easier for the public to report drainage issues. BMBC's Highways Department is working with colleagues in IT to improve this service by the use of existing asset data

which can be overlaid onto the map to make reporting more accurate. Whilst this system is very helpful, it has significantly increased the number of requests for service received, putting a greater burden on an already overstretched workforce to investigate these issues. Work still needs to be done to educate the public regarding responsibilities for different types of drainage assets.

- 7.6 Climate change is something that threatens to seriously impact much of the world if steps are not taken to combat it. There is growing public awareness and widespread concern on the impact of climate change. Using the latest science from the Met Office and around the world, the *UK Climate Projections 2018* illustrate a range of future climate scenarios up to the year 2100 – showing increasing summer temperatures, more extreme weather and rising sea levels are all on the horizon and urgent international action is needed.
- 7.7 The Council is working with developers to design not just flood resistant development but flood resilient development should flooding occur. The Council is using current guidance from the Environment Agency and Department for Environment Food & Rural Affairs (DEFRA) to reduce run off from developments and increase green space by the use of sustainable techniques e.g. sustainable drainage systems (SUDS) which mimic natural drainage. They aim to manage rain close to where it falls. Not only do they reduce the burden on the sewerage system, they can also help wildlife to thrive in urban areas, with many of the drainage systems being intrinsically wildlife friendly.
- 7.8 Climate Change predictions now show that there will be an increase in intensity of storms, these storms are more unpredictable and give little warning as to where the most intense rain will fall. This year has seen a number of this type of storm which gives rise to major issues with surface water flooding. With this only set to increase and the subsequent number of flood warnings increasing, there is a danger that forecasting will not be accurate enough causing the public to ignore warnings as the last few have not been perceived to be correct. This requires careful education of the public as to the nature of these events and the unpredictability of exactly where it will happen.

## **8.0 Invited Witnesses**

8.1 The following witnesses have been invited to today's meeting:-

- Matt Gladstone, Executive Director - Place, BMBC
- Paul Castle, Service Director - Environment & Transport, BMBC
- Ian Wilson, Service Manager - Highway Delivery, BMBC
- Wayne Atkins, Principal Engineer - Asset Management
- Andrew Frosdick, Executive Director, Core Services, BMBC
- Simon Dobby, Head of Health, Safety & Emergency Resilience, BMBC
- Katie Rogers, Head of Communications & Marketing, BMBC
- Joe Jenkinson, Head of Planning Policy & Building Control, BMBC
- Cllr Alan Gardiner, Cabinet Spokesperson, Core Services
- Cllr Chris Lamb, Cabinet Spokesperson, Place Directorate
- Dave Fullen, Director of Customer & Estate Services, Berneslai Homes

## **9.0 Possible Areas for Investigation**

9.1 Members may wish to ask questions around the following areas:

- What public health information is shared with individuals to keep them safe and well from contaminated water, electricity etc. during flooding incidents?
- What role do other agencies, such as social care and the fire service, have to play in the flooding response?
- What contingency plans are in place if key people are unavailable or the unexpected occurs?
- What is in place to ensure we protect and support our most vulnerable residents?

- How does the response from services compare from 2007 to 2019; were appropriate resources available and have any new lessons been learnt?
- When assets are transferred to the community or individuals take on a Barnsley Homes property, how do you ensure that everyone is aware of where responsibility lies?
- Have areas of risk changed since the last flooding event and what changes do you expect to see in the future?
- What action would be taken if a new development/private land was found to not have adequate flood resilience?
- How will you involve communities in the learning from flooding events?
- What advice is given to people living in single storey properties in preparation for flooding?
- What future local projects will be supported by the Environment Agency to prevent flooding in key hotspots?
- To what extent were flood stores effective in the recent flooding incident?
- How do you communicate with the public throughout the different steps of the process, including those where English is not their first language?
- What benefits would a register and record of assets deemed to have significant impact on flood risk bring to the organisation and would the benefits outweigh the cost?
- How has the recent flooding incident been documented so that information can be used to inform future learning?
- What role do members have to play in supporting the work around flooding and emergency resilience?

## 10.0 Background Papers and Useful Links

- Appendix 1 – Map of Barnsley Flood Risk Areas (attached)
- Overview & Scrutiny Flooding Task & Finish Group Report (2017):  
<https://barnsleymbc.moderngov.co.uk/documents/s19004/Task%20and%20Finish%20Group%20-%20Flooding.pdf>
- Service Response to Overview & Scrutiny Flooding Task & Finish Group Recommendations (2017):  
<https://barnsleymbc.moderngov.co.uk/documents/s21514/Flooding%20-%20Response%20to%20Scrutiny%20Task%20and%20Finish%20Group.pdf>
- The Pitt Review Final Report – Learning Lessons from the 2007 Floods:  
[https://webarchive.nationalarchives.gov.uk/20100702215619/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final\\_report.html](https://webarchive.nationalarchives.gov.uk/20100702215619/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html)
- Floods and Water Management Act 2010: [Flood and Water Management Act \(2010\)](#)
- Flood Risk Regulations 2009: <http://www.legislation.gov.uk/ukxi/2009/3042/contents/made>
- The Environment Agency Preliminary Flood Risk Assessments (PFRA) guidance:  
<https://www.gov.uk/government/publications/preliminary-flood-risk-assessments-and-flood-risk-areas/preliminary-flood-risk-assessments-and-flood-risk-areas>
- Barnsley MBC Preliminary Flood Risk Assessment Report and Local Flood Risk Management Strategy: <https://www.barnsley.gov.uk/services/roads-travel-and-parking/drainage-and-flooding/flooding-advice-and-prevention/>
- Met Office UK Climate Projections (UKCP):  
<https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

## 11.0 Glossary

Term	Definition
Act	A Bill approved by both the House of Commons and the House of Lords and formally agreed to by the reigning monarch (known as Royal Assent).
Assets	Structures or a system of structures used to manage flood risk.
Asset Management	A plan for managing water infrastructure and other assets in order to deliver an agreed standard of service.
BLT	Barnsley Leadership Team includes all of the Council's Executive Directors as well as Service Directors.
BMBC	Barnsley Metropolitan Borough Council.
Climate Change	Long term variations in global temperature and weather patterns caused by natural and human actions.
Defences	A structure that is used to reduce the probability of floodwater or coastal erosion affecting a particular area (for example a raised embankment or sea wall).
Flood Defence	Infrastructure used to protect an area against floods such as floodwalls and embankments; they are designed to a specific standard of protection (design standard).
Flood Resilience	Measures designed to reduce the impact of water that enters property and businesses; could include measures such as raising electrical appliances.
Flood Resistance	Measures designed to keep flood water out of properties and businesses; could include flood guards for example.
Flood & Water Management Act	Part of the UK Government's response to Sir Michael Pitt's Report on the Summer 2007 floods, the aim of which (partly) is to clarify the legislative framework for managing surface water flood risk in England.
LLFA / Lead Local Flood Authority	Local Authority responsible for taking the lead on local flood risk management.
LRF / Local Resilience Forum	LRFs are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. They plan and prepare for localised incidents and catastrophic emergencies based on the local police force area.
OSC	The Council's Overview and Scrutiny Committee.
SuDS / Sustainable Drainage System	Methods of management practices and control structures that are designed to drain surface water in a more sustainable manner than some conventional techniques.

## 12.0 Officer Contact

Anna Marshall, Scrutiny Officer, 25 November 2019