

# **Improving Places Select Committee**

## **7<sup>th</sup> September 2021**

### **Update on ongoing and future Flood Alleviation Scheme (FAS) Projects**

**Tom Smith and Richard Jackson**

[www.rotherham.gov.uk](http://www.rotherham.gov.uk)

# Content

1. Outline of previous presentations to Improving Places Select Commission
2. Overview of November 2019 floods and recent 'near miss' events
3. The Council's six priority Flood Alleviation Scheme (FAS) projects
4. Overview of progress since the last IPSC update:
  - a) Securing RMBC capital funding to deliver the pre-construction process only
  - b) Securing funding from several organisations to deliver construction works
  - c) Progress on advanced phases located along the River Don corridor
  - d) Progress on achieving a "Shovel Ready" status for all six priority FAS projects
5. Planned work for the next three years on the pre-construction process for all six priority FAS projects
6. Next Steps
7. Questions

# 1: Previous IPSC presentations

## Introductory note:

- We have included some parts of previous IPSC presentations to help new members with their familiarisation
- Copies can be made available to IPSC members upon request

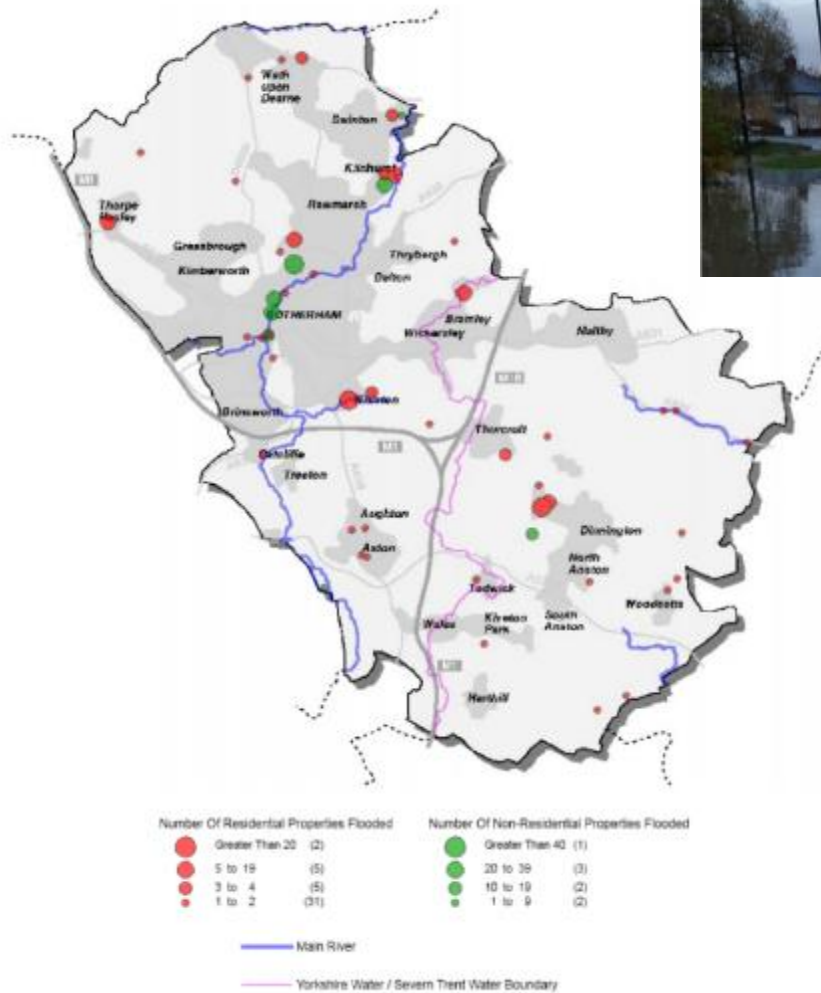
## 6<sup>th</sup> February 2020 to full IPSC:

- Catalyst was to update on the November 2019 flooding, and the Council's emergency response and recovery
- Provided an overview of the FAS projects constructed since the June 2007 floods (i.e. £18m of works)
- Updated on progress of the pre-construction process for advanced phases of FAS projects being developed since 2019, using capital funding secured through external funding (i.e. £6m of works)
- Identified the Council's six priority FAS projects (i.e. estimated £52m of proposed future capital works)

## 30<sup>th</sup> November 2020 to FAS sub-group of IPSC:

- Updated on the impacts of November 19 floods and the 'Section 19' report published in May 2020
- Updated on the Property Flood Resilience (PFR) process
- Provided an overview of borough wide remedial works
- Explanation of the long term funding needs for the six priority FAS projects
  - i.e. with the first stage being to secure £5.8m of investment to undertake the pre-construction process over a three year period to achieve "Shovel Ready" status

## 2: Overview of November 2019 floods



## 2: 7<sup>th</sup>, 8<sup>th</sup> and 14<sup>th</sup> November 2019

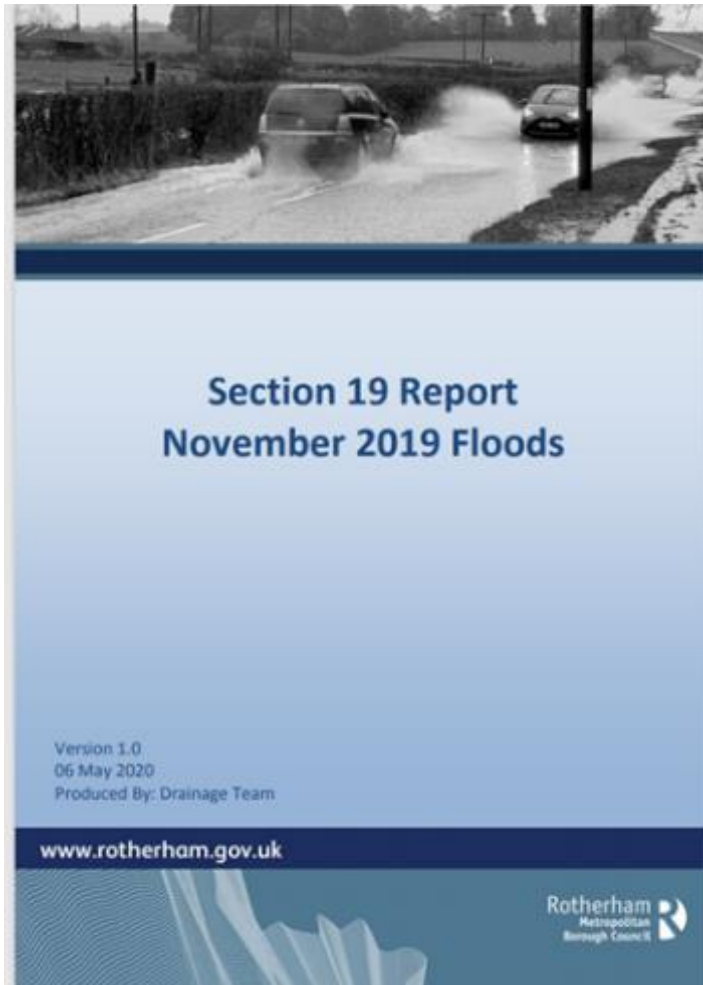
### Key impacts across the borough:

- Flooding of road, rail and tram/train networks severely impacted ability for people to travel
- 38 parts of the strategic roads network were flooded, with many more areas damaged or inaccessible
- 151 residential properties suffered internally flooding or were unliveable – many more were flooded below floorboards
- 277 businesses were directly impacted and 92 businesses were indirectly impacted with many more with accesses cut off
- Numerous other operational impacts across the borough
  - E.g. School closures, assisted evacuations, setting up/operating emergency refuge centres, sandbag requests and pump equipment deployment

**More detail can be found in the 'Section 19' report published in May 2020, and in previous IPSC presentations**



## 2: 'Section 19' Report on November 2019 floods



### Legislative framework:

- Investigation only needs to be undertaken if the Lead Local Flood Authority (LLFA) deems that the scale of the incident warrants an investigation
- If investigation is undertaken the findings must be published in a 'Section 19' report

### LLFA decisions taken:

- Scale of November 2019 flooding warranted a borough wide Section 19 investigation
- Additional internal and external resource brought in to the LLFA team on a temporary basis
- Resources re-deployed from other teams within the Highway Asset Management service area

### Work completed:

- Report published in May 2020
- This work is already informing more detailed studies and capital works that are being progressed
- <https://www.rotherham.gov.uk/downloads/file/1691/section-19-flood-investigation-report-november-2019>

## 2: Recent near misses

### January 2021 catchment wide impacts (Storm Christophe):

- Initially predicted to have major impacts across South Yorkshire (due to prolonged rainfall, with extensive river/watercourse flooding in Rotherham)
- Wettest areas were actually further to west and north than originally predicted by the Met Office and Environment Agency
- River Don was very close to flooding several areas and this almost flooded the Town Centre and much of the lowest lying Parkgate
- Forecast gave more time to prepare than was possible in November 2019
- Network Rail removed critical equipment and closed railway
- Railway flooded, but no properties or businesses thought to have been flooded internally



### 30<sup>th</sup> July 2021 (with impacts localised to the south of the borough):

- Different type of flooding to November 2019 and Storm Christophe
- Short duration and high intensity rainfall affecting local drainage networks
  - No warning time – available photo's are from the community or RMBC staff who were in the vicinity at the time the event happened
  - Impacts were on drainage systems and Water Company combined sewer networks
  - Minimal impacts from watercourse flooding
- This type of situation could happen in any part of the borough



# 3: Proposed Flood Alleviation Scheme Projects

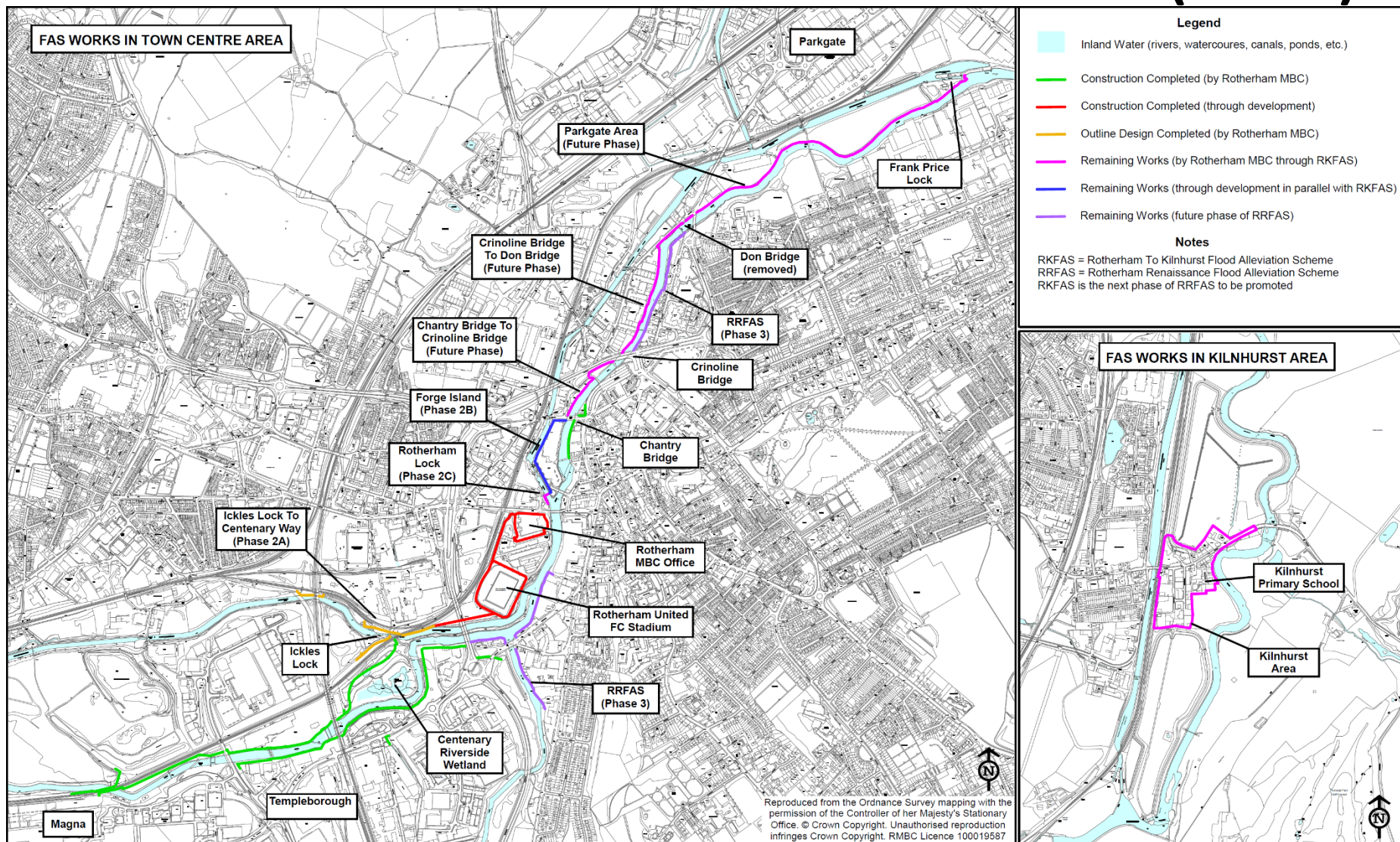
**The Council is currently liaising with Mayoral Combined Authority (MCA), Environment Agency, Network Rail and others in an attempt to secure a required £52m of external funding, to deliver six long term Flood Alleviation (FAS) projects:**

- A: Rotherham to Kilnhurst FAS (£24m)
- B: Parkgate & Rawmarsh FAS (£14m)
- C: Whiston Brook FAS at Whiston (£4m)
- D: Eel Mires Dike FAS at Laughton Common (£3m)
- E: Catcliffe permanent pumping station (£5m)
- F: Culvert renewal programme (£2m)

**The costs stated are the initial estimates only, which are based on feasibility work and may change after completion of the pre-construction process set out later in this presentation**



# 3: Scheme A: Rotherham to Kilnhurst FAS (£24m)





# 3: Schemes B to F



## **B: Parkgate & Rawmarsh FAS (£14m)**

- Feasibility work completed and preferred option selected

## **C: Whiston Brook FAS (£4m)**

- Feasibility work completed and preferred option selected

## **D: Eel Mires Dike (£3m)**

- Feasibility work completed and preferred option selected

## **E: Catcliffe permanent pumps (£5m)**

- Feasibility study now needed

## **F: Culverts renewal programme (£2m)**

- Feasibility study now needed

# 4: Overview of progress since last IPSC update

**Priority and programme critical work areas have been, and will continue to be:**

- (i): Securing RMBC capital funding to deliver pre-construction only
- (ii): Securing external funding from several organisations to deliver construction works
- (iii): Delivering advanced phases of construction works along the River Don corridor
- (iv): Progress on mobilising a £5.8m pre-construction process that is needed to achieve “Shovel Ready” for all six priority FAS projects

**More detail is set out on the following slides**

## 4(i): Overview of progress since last IPSC update

**£5.8m of RMBC capital funding already secured for pre-construction works on 6 Priority FAS projects:**

- £5.8m pre-construction process to be delivered over three Financial Years (i.e. 2021/22, 2022/23 & 2023/24)
- The initial estimated costs for the construction works is £46.2m, taking the overall total required to £52m

Scheme	Initial overall cost estimate (i.e. Pre-construction & construction)	Initial costs to achieve “Shovel Ready” status (i.e. Pre-construction only)
Rotherham to Kilnhurst FAS	£24m	£2m
Parkgate & Rawmarsh FAS	£14m	£2m
Whiston Brook FAS	£4m	£0.5m
Eel Mires Dike FAS	£3m	£0.6m
Catcliffe Permanent Pumps	£5m	£0.6m
Culvert Renewal Programme	£2m	£0.1m
<b>Total</b>	<b>£52m</b>	<b>£5.8m</b>

## 4(ii): Overview of progress since last IPSC update

**£15.5m secured funding against the £52m funding needed (i.e. £36.5m still needed) from several organisations to deliver both the pre-construction process and construction works:**

Funding source	Funding secured to date	Priority FAS projects supported by funding secured to date
RMBC Capital Programme	£5.8m	<ul style="list-style-type: none"><li>Pre-construction process for all 6 Priority FAS projects</li></ul>
RMBC Town Centre Investment Fund	£5.7m	<ul style="list-style-type: none"><li>Rotherham to Kilnhurst FAS Phases 2A, 2B and 2C (in Rotherham Town Centre)</li></ul>
European Regional Development Fund (ERDF)	£1.6m	<ul style="list-style-type: none"><li>Rotherham to Kilnhurst FAS Phase 2A (in Rotherham Town Centre)</li><li>Parkgate &amp; Rawmarsh FAS (in Parkgate area) for</li></ul>
Sheffield City Region Mayoral Combined Authority (Local Growth Funds)	£1.3m	<ul style="list-style-type: none"><li>Rotherham to Kilnhurst FAS Phases 2B and 2C (in Rotherham Town Centre)</li></ul>
Yorkshire Regional Flood and Coastal Committee (Administered by the Environment Agency)	£0.7m	<ul style="list-style-type: none"><li>Business case for Rotherham to Kilnhurst FAS (Rotherham Town Centre, Parkgate and Kilnhurst areas)</li><li>Pre-construction process for Rotherham to Kilnhurst FAS Phase 2C (in Rotherham Town Centre)</li></ul>
Network Rail	£0.4m	<ul style="list-style-type: none"><li>Pre-construction process for Rotherham to Kilnhurst FAS Phase 2C, and for construction of Phase 2B (in Rotherham Town Centre)</li></ul>
<b>Total</b>	<b>£15.5m</b>	<ul style="list-style-type: none"><li><b>Total funding secured to date</b></li></ul>



# 4(iii): Overview of progress since last IPSC update

Delivering advanced phases of construction works along the River Don corridor:

- Within Rotherham Town Centre, as part of the Rotherham to Kilnhurst FAS
  - **RRFAS2A: Ickles Lock to Centenary Way Flood Wall and Flood Embankment**
    - Pre-construction – detailed design and third party approvals completed (including Network Rail, Canal & River Trust, BOC Ltd and Northern Power Grid) and construction contract agreed in principle
    - Construction – planned for October 2021 to December 2022



# 4(iii): Overview of progress since last IPSC update

Delivering advanced phases of construction works along the River Don corridor:

- Within Rotherham Town Centre, as part of the Rotherham to Kilnhurst FAS
  - **RRFA2B: Forge Island Flood Wall and Public Realm Improvements**
    - Pre-construction – completed between 2017 and 2019
    - Construction – completed in 2021
  - **RRFAS2C: Forge Island Canal Barrier**
    - Pre-construction – completed between 2019 and 2021
    - Construction – Started August 2021, and due to be completed in July 2022
    - Above is linked to a pre-booked canal closure





# 4(iii): Overview of progress since last IPSC update

Delivering advanced phases of construction works along the River Don corridor:

- **At Parkgate, as part of the Parkgate & Rawmarsh FAS**
  - Construction – advanced phases of works on watercourse capacity improvement works completed
    - new debris screens
    - removal of obstructions in the watercourse and channel re-alignment works to improve
  - Works delivered under RRFAS2A ERDF contract
- **Partnership working with Network Rail**
  - Vegetation management to reduce risk of siltation and debris build up in channel upstream of a culverted system
  - Full clearance of the culverted system that passes below the railway, canal and an industrial property, before flowing into the River Don



# 3(iv): Overview of progress since last IPSC update

**RMBC mobilisation activities needed to achieve a “Shovel Ready” status for all six priority FAS projects:**

- March 2021 – £5.8m budget allocation made by Council
  - This provided the catalyst to start mobilising the pre-construction process for the six priority FAS projects
- March 2021 to July 2021 – Internal RMBC Financial and Procurement approvals process completed
- July 2021 to August 2021 – Started mobilisation of the RMBC “Client Team”

**Securing a market leading external supply chain to work on RMBC projects:**

- External supply chain for FAS projects is always is very resource constrained
- May 2021 to June 2021 – undertook market testing with the Flood Risk Management supply chain
  - Tested their willingness to work collaboratively with RMBC
  - A very positive response was received
- June 2021 to August 2021 – completed commercial procurement exercises to secure suppliers
- August 2021 – Contract Award made to three “Term Consultants” (via the YORhub framework), for a six year period, with an option to extend by a further two years
  - These are: Pell Frischmann Consultants Ltd, Mott MacDonald Ltd and Capita Property & Infrastructure

**This sets the framework to start delivering the pre-construction works on all six priority FAS projects**

# 4: Planned work for the next three years

**The pre-construction process requires three years of work:**

- Project delivery timescales are dictated by factors that are outside the Council's control
  - Process and timescales needed to:
    - develop complex engineering solutions involving several specialist disciplines (e.g. hydraulic modellers, geotechnical engineers, structural engineers etc)
    - undertake environmental assessment and agree enhancements/mitigation
    - sharing information on scheme development process with communities
    - secure third party approvals with landowners and asset owners
    - secure planning permissions
  - Consultant's will be working on several projects at any given time to deliver the above

**Securing financial approvals to allow construction works to take place:**

- Still a £36.5m estimated funding gap across the 6 priority FAS projects to deliver construction works
- When the complex engineering solutions have been agreed, construction funding will need to be sought from a range of organisations, including, but not limited to:
  - RMBC
  - Environment Agency
  - Regional Flood Defence Committees (Note: Yorkshire Region for 5 projects & Trent Region for 1 project)
  - Mayoral Combined Authority
  - Network Rail
  - Water Companies
  - Private sector contributions
  - Other Government Departments (e.g. Department for Transport, Department for Education etc)



# 5: Planned work for the next three years

On all six priority FAS projects, the pre-construction works will be delivered in three stages:

- Stage 1: Mobilisation of resources, surveys and investigation
- Stage 2: Initial design work and engagement of third parties
  - e.g. community groups, land owners, utility companies, Network Rail, Canal and River Trust etc
- Stage 3: Detailed design, finalisation of third party approvals and work up to procurement of construction suppliers
- The indicative timescales for each Stage is dependent on the complexity and extent of the individual project

Key points are that:

- The above three staged process is a **sequential process** that is required to be undertaken for each project
- Different specialist engineering disciplines will be involved from the outset of each project
- Working on the projects concurrently will shorten the sequential process
- **Concurrent working across all six priority FAS projects is therefore the only viable delivery option**

## 6. Next Steps

- Begin the pre-construction process with the three Consultant suppliers
- Working through the three staged approach detailed above for each of the six priority FAS projects to achieve “Shovel Ready” status in 2024, with concurrent working across the six projects
- Work with stakeholders on these complex FAS projects
- The Drainage Team will continue to respond to flood incidents as and when they occur
- Continuing to work to attract funding to fully deliver the schemes in future and protect residents, businesses and road network from flooding in the future

# 7: Questions?