



**Doncaster
Council**

November 2019 Flood Recovery



Doncaster

Location & Key Facts

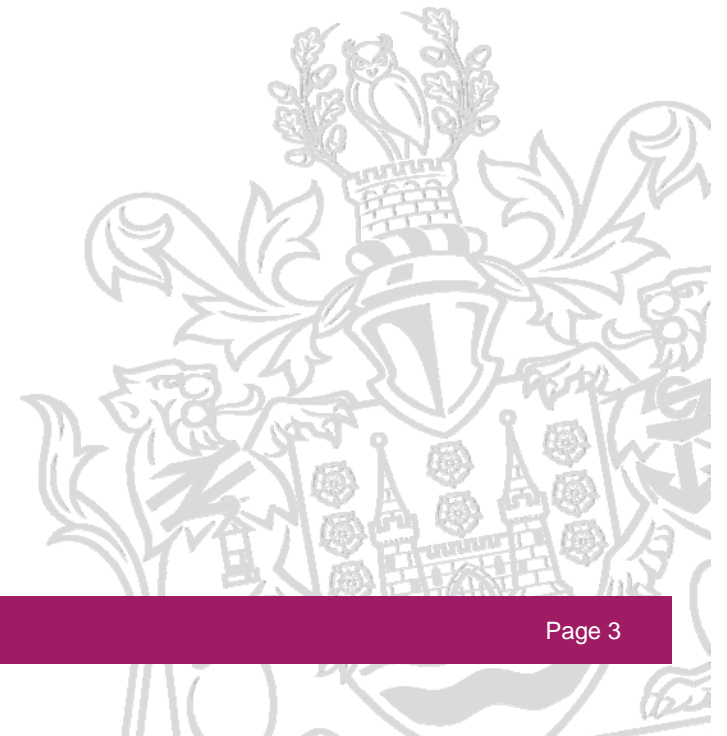


- Population 311,890
- Largest Metropolitan Borough in England
- Central Urban Built Environment
- Farming Land Surrounds the Town and Villages

Doncaster's Flood Risk

Sources of Flooding

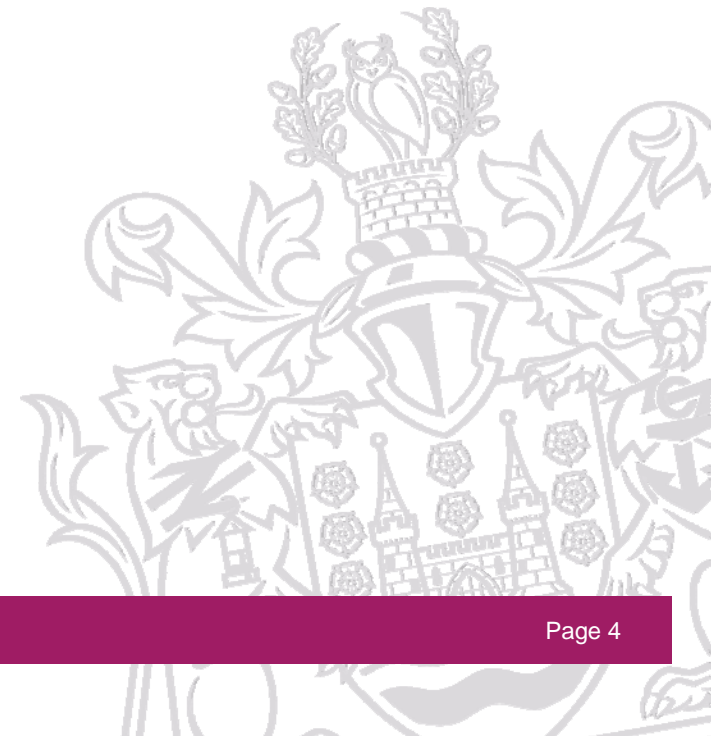
- Fluvial
 - River Don (Primary Flood Risk Threat)
 - River Dearne
 - River Went
 - River Idle
 - River Torne
- Pluvial
 - Land Drainage
 - Surface Water (Highway Network)
- Ground Water
- Tidal Influence



Doncaster's Flood Risk

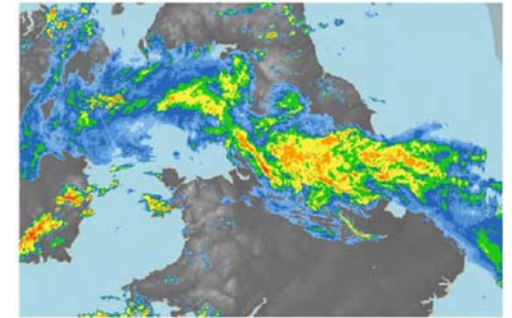
Sources of Flooding

- **Fluvial Flood Risk**
 - Significant Risk – 2,365 Properties
 - Moderate Risk – 5,032 Properties
 - Low Risk – 21,645 Properties
 - Doncaster is the third highest risk authority (out of 14 Yorkshire Local Authorities), with 10% of Yorkshire's Fluvial/Tidal risk within its boundary.
- **Surface Water Flood Risk**
 - 1/30yr Storm – 28,500 Properties
 - 1/100yr Storm – 64,000 Properties
 - 1/1000yr Storm – 81,000 Properties



November 2019 Flood

Key Facts



On 7th November 2019 persistent and intense rainfall fell across many parts of Northern England from a stationary weather front for 24 hours.

The most intense band of rain was located over Sheffield, Rotherham and Doncaster, which had devastating effects on communities in those areas who are at flood risk.

Between a 1 in 100 year and 1 in 250 year storm 82mm 24 hours (Doncaster) With Similar Levels in Barnsley and Rotherham, Sheffield. 125mm Over 24hour Period Wider Catchment (Upstream Highlands)

Leading to highest recorded river levels in Doncaster.

Number of residential properties affected: 712

November 2019 – Flood

Fluvial Flooding – Conisbrough & Denaby

First impacts of rising river levels.

25 Properties suffered internal flooding.

High Impact, fast flowing flood water



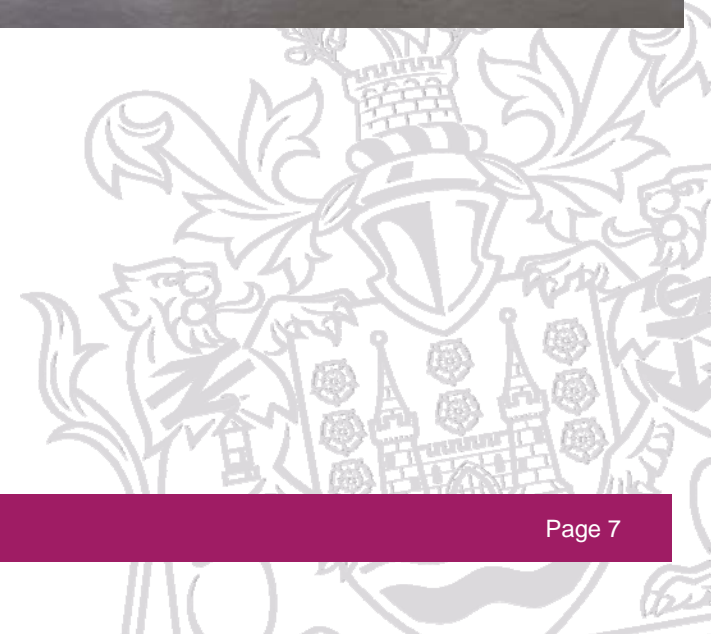
November 2019 – Flood

Fluvial Flooding Bentley

Historic Wash land

456 Properties suffered flooding

Areas below sea level, land drainage compounds river flooding



November 2019 – Flood

Fluvial Flooding – Fish Lake

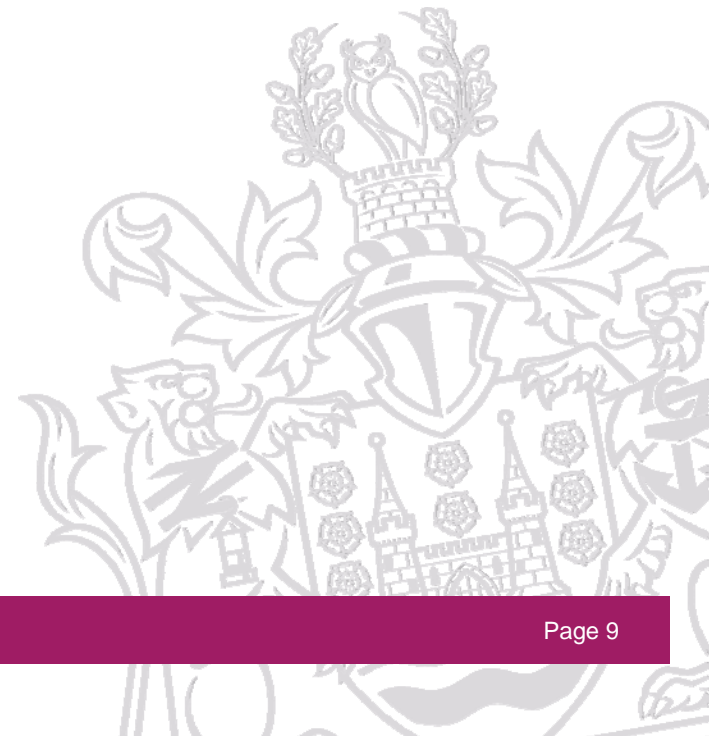
- 174 Properties in and around the village of Fishlake suffered from flooding
- Whole Village cut off from the highway network
- Evacuation and access difficult
- Land drainage again compounding river flooding



Response & Future Alleviation

Key Intervention Measures

- Infrastructure Engineering & Alleviation Scheme's
- Natural Flood Management
- Property Level Resilience
- Community Resilience



Infrastructure Engineering & Alleviation Schemes

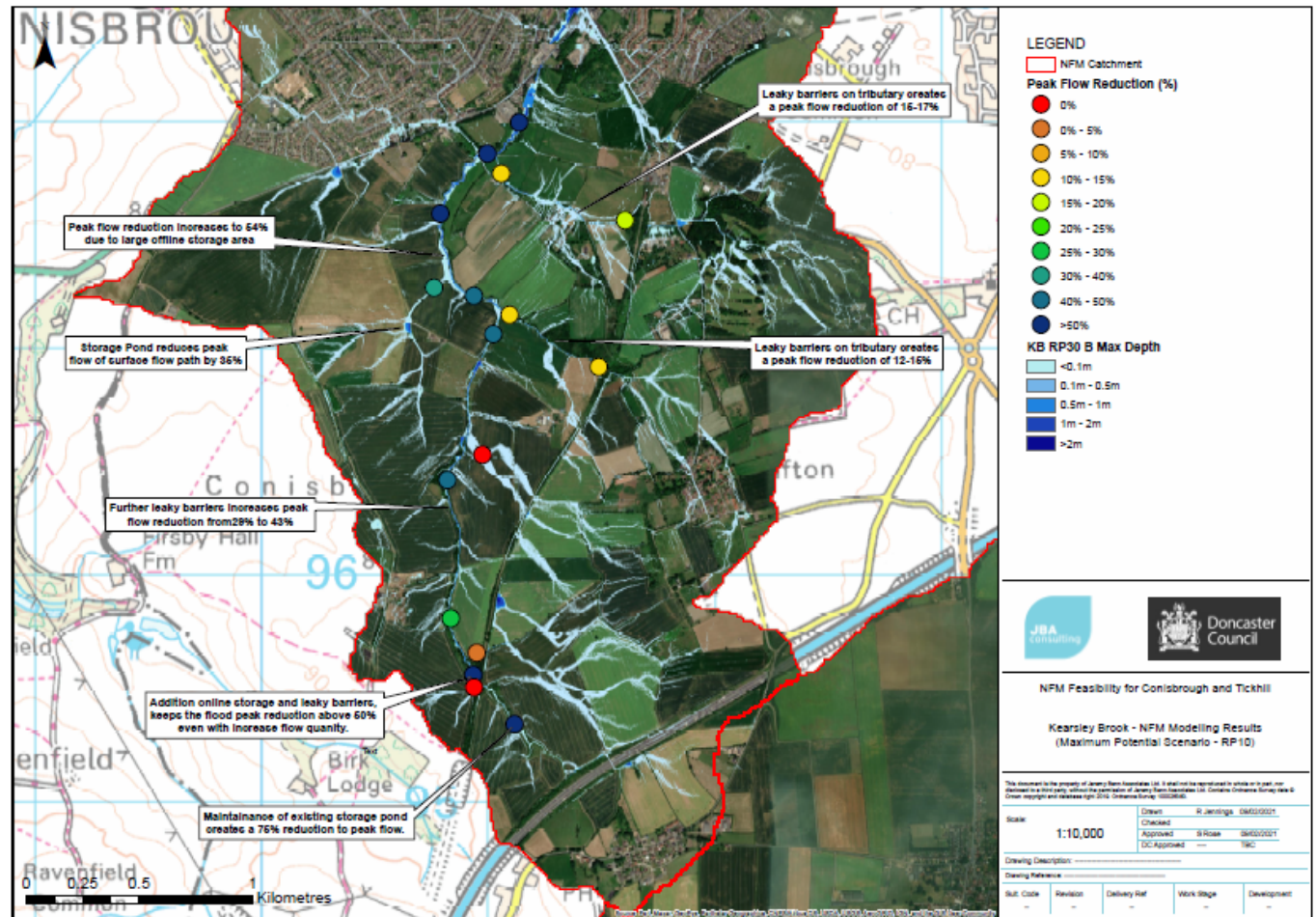
Attenuation, Attenuation, Attenuation !



Natural Flood Management - NFM

Future Mitigation – NFM

- Fast Reacting Catchments
- Leaky Dam's / Barriers
- Tree Planting
- Changes to Farming Practices
- Water Attenuation / Off Line Storage
- Roof Gardens



Property Resilience

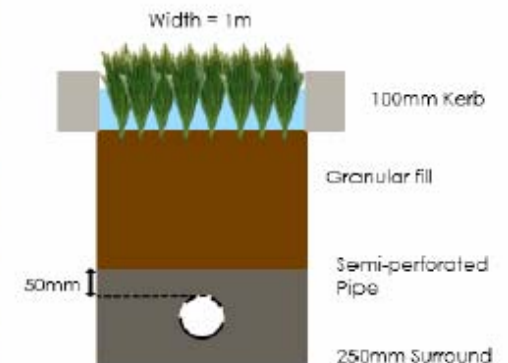
Future Mitigation – Property Flood Resilience



Community Resilience

Living with Water

- Replacing grasses or paved areas of the Highway with Swales
- Soakaways / Holding Attenuation
- Oversized Surface Water Sewers
- Increased Cleansing and Maintenance for High Risk Areas
- Culvert Removal
- Flood Wardens
- Access to Telemetry



Delivery

Funding and Delivery

- **Partnership Working**
 - Environment Agency
 - Sheffield City Region and other Local Authorities
 - Communities & Community Groups
 - Environmental Charities & Volunteer Groups
 - Planning Authorities & Developers
- **Funding**
 - Funding Required £28m
 - Funding Secured £16m
 - Funding Gap £12m
- **South Yorkshire Catchment Approach**
 - Climate Emergency (Sheffield City Council Lead Authority)
 - Smart Investment (Barnsley Council Lead Authority)
 - Technology & Operational Management (Doncaster Council Lead Authority)
 - Community Engagement (Rotherham Council Lead Authority)

Any Questions

