

Scrutiny Committee

Updates

Date:Thursday, 13th March, 2025Time:10.30 amVenue:The Capesthorne Room - Town Hall, Macclesfield SK10 1EA

The information on the following pages was received following publication of the committee agenda.

1. Update on Flood Risk Management (Pages 3 - 42)

Presentations from Lead Local Flood Authority, Environment Agency and United Utilities.

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Flood Risk Management and Drainage

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Scrutiny Committee, 13 March 2025



Parkgenda Item 5

Cheshire

We will cover ...

- 1. Introductions
- 2. Context: Flood risk management and drainage in Cheshire East

- 3. Update since March 2024
- 4. What we're planning for 2025-6





Since March 2024

Weather events

Named storms

11 in last storm season (Sept 23/24)
Significantly increased rainfall outside storm events

Flooding investigations

• More than 50 instances of property flooding

s19 formal investigation reports

3 instances triggered

Operational services

Gully cleansing

•33,376 cleaned to end Jan 25

Intensive works •97 dig-ups completed

Applications

445 Planning applications27 Land Drainage Consent applications

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Capital scheme delivery

Number of significant schemes completed and ongoing:

•Moss Lane, Styal •Station Road, Wrenbury •Ryle Street, Macclesfield

Crewe Road, Shavington

Open

Green

Fair



A555 Manchester Airport Relief Road

- Crosses CE, Stockport and Manchester City Council areas
- Opened 1995, extension 2018
- Stockport oversaw design and build of extension

January 2025

- Flooded at B5358 underpass
- Pumping station functioning
- Flooding also experienced in MCC and

SMBC areas

 Winter conditions hampered reopening of road

Future actions

- Investigating increasing pumping station capacity
- Discuss design issues with Stockport

A34 Melrose Way and Fulshaw Park South

Related to heavy rainfall experienced in the South Manchester area

January 2025

- Melrose Way: Obstruction in drainage ditch and pumping station failure
- Fulshaw Park South: Triggered S19 report. Various contributary factors.

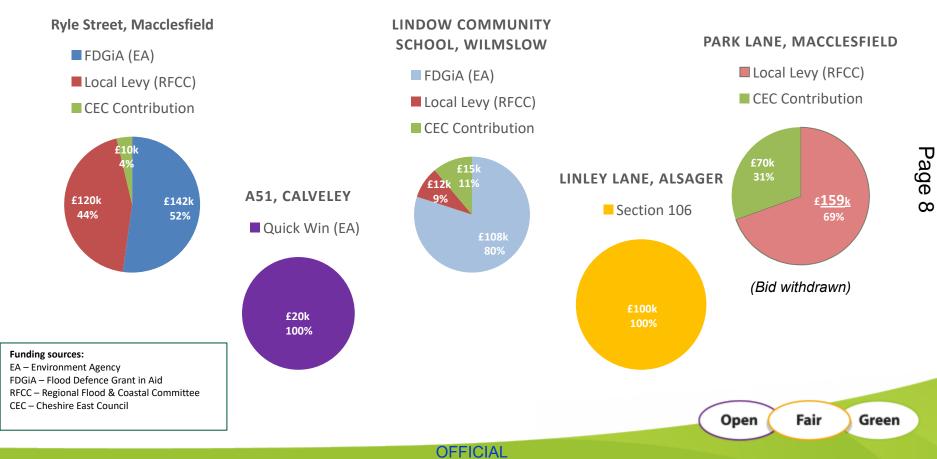
Future actions

- Melrose Way: Cyclical cleansing of ditch to be reviewed
- Fulshaw Park South: Riparian owners to clear Whitehall Brook and implement of S19 recommendations





External Funding Opportunities



Our plans for 2025-6

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• Drainage, Flood **Risk and** Pumping Stations:

- Revenue: £2.29m (+19%)
- Capital: £2.86m (+30%)
- External Funding Opportunities

- Revised Local Review Flood Risk Management Strategy
 - S19 Reports to be published
- Strategy Promoting Sustainable Drainage
 - Systems with developers

- Introduction of Systems Map16:
 - Managing drainage assets
 - More flexible and better data than existing system
 - Considering StormChain: Managing storm event response

Delivery Improved volume and efficiency of gully cleansing

- Focus on key routes and urban areas
- Deliver / complete our important capital schemes

Open

Fair

Appendices





Open Fair Green

Strategic Framework and Legislation

Local Flood Risk Management Strategy

- Published in 2017
- Currently under review for 2025

Objectives:

- 1. Set out responsibilities for flooding
- 2. Assess the risks of flooding
- 3. Reduce flood risk and adverse consequences
- 4. Develop actions and interventions to reduce flood risk
- 5. Manage flood risk sustainably

Land Drainage Act 1991 and Flood and Water Management Act 2010

Drainage Strategy

• Duty to maintain highway infrastructure as safe and available

Approach:

- Risk-based approach
- Targeted cleansing programme:
 - Higher risk areas / more likely to flood = higher frequency
 - Lower risk areas have reduced or reactive frequency.

Highways Act 1980

Open

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Functions

Drainage

- Routine: Cleaning of gullies, drainage structures
- Reactive: Unblocking gullies, removing surface water
- Proactive: Drainage schemes to increase capacity

Lead Local Flood Authority

- Flood infrastructure management: Deliver works to manage flood risk
- Multi-agency: Coordination with risk management authorities
- **Planning consultee:** Consulted on planning applications for surface water drainage / SuDS

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Open

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Our High-Risk Areas

- High risk areas are outlined in the Local Flood Risk Management Strategy (LFRMS)
- 2017 LFRMS detailed 25,900 residential properties in areas at risk of surface water flooding in Cheshire East. New NaFRA2 data suggests <u>28,172</u> an increase of ~8.5%.
- 2017 LFRMS detailed 1,160 residential properties in areas at risk of fluvial flooding (rivers) in Cheshire East. New NaFRA2 data suggests <u>4,586</u> an increase of ~300%.

NB: NaFRA2 provides significantly improved flood risk mapping thanks to; much better data, improved modelling methodologies, improved property and infrastructure assessments, and incorporated climate change projections



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Environment Agency

David Brown Senior Advisor – Flood Risk Management

Katy Holt Partnership & Strategic Overview Team Leader

13 March 2025



Environment Agency

Roles and Responsibilities

The Environment Agency is responsible for taking a **strategic overview** of the management **of all sources of flooding** and coastal erosion and are responsible for managing the risk of flooding from main rivers, reservoirs estuaries and the sea

Strategically: this involves **working with partners** to assess and determine flood risk and to identify and deliver solutions to mitigate that risk.

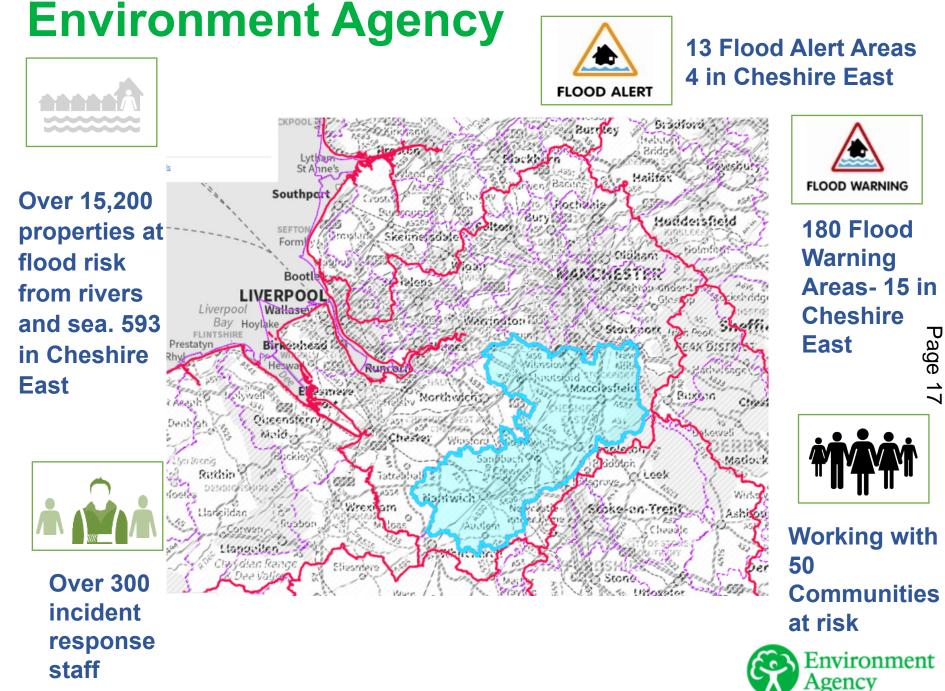
We provide **information on areas at risk** of river, surface water and coastal flooding through flood risk maps.

Operationally: We issue **flood warnings** for main river flooding, our operations team **maintain assets** and clear blockages.

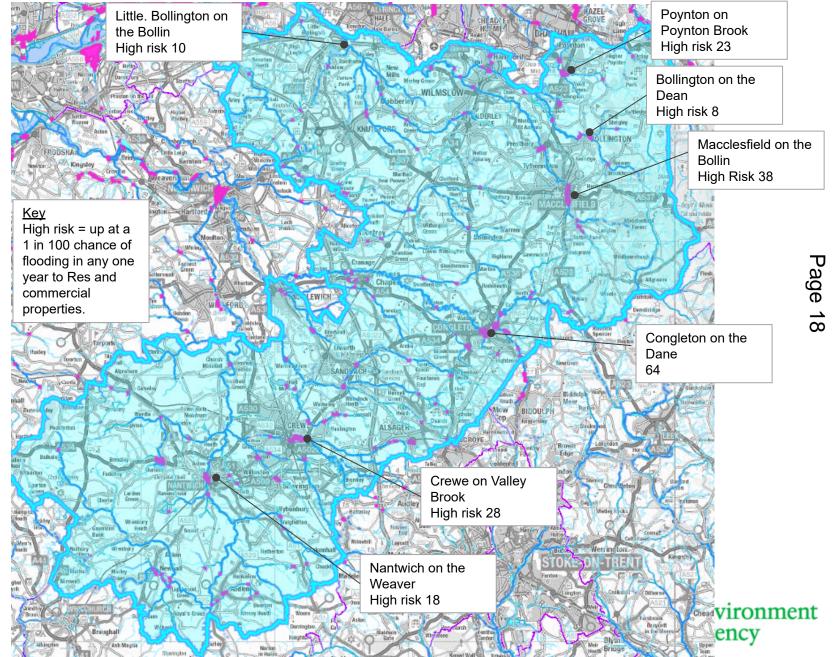
We conduct post-flood investigations to understand what occurred..

Our Resilience team **work with the community** to help the community respond to the event.





Environment Agency Main River risk map



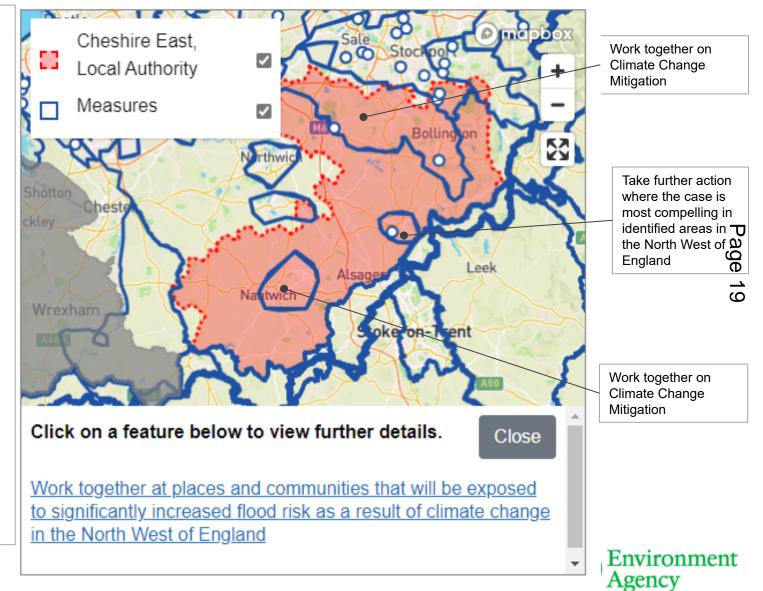
Environment Agency Flood Risk Management Plan 2

EA: area based strategy, with measures in FRMP2 (second cycle)

National EA strategy

Available on Gov.uk

- Key messages: climate change mitigation
- work together
- reduce Carbon
- invest in flood risk assets
- provide planning advice
- monitor weather
- forecast flooding

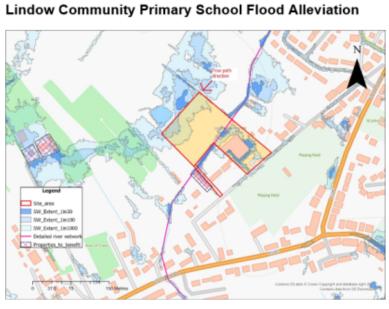


Environment Agency

Investigate main river flood risk solutions. Strategically, EA administer Defra Flood Defence Grant in Aid (FDGiA) Schemes, and Local Levy funding for the Regional Flood and Coastal Committee. This means advising on schemes, and providing QA on business cases to turn indicative allocations into signed off business cases and deliverable schemes.

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Cheshire East Lead Local Flood Authority





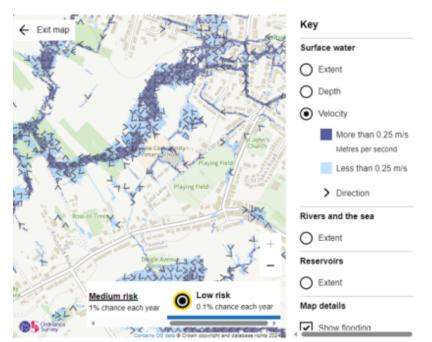


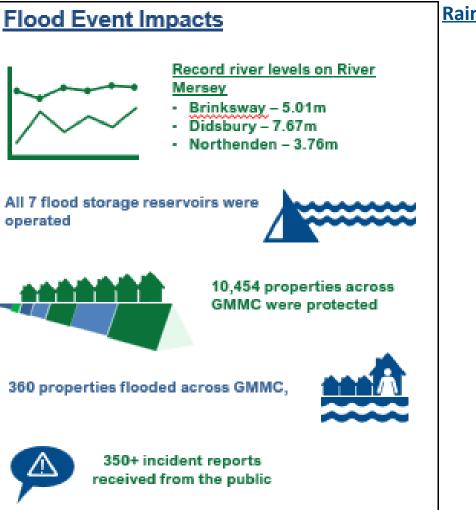
Figure 2 Overland flow route direction and speed (EA Long Term Flood Risk Map)

Recommendation

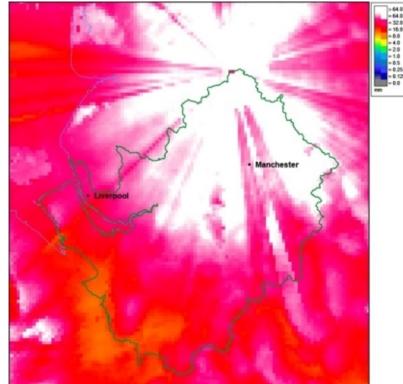
It is recommended that the approval for expenditure of **£89.5k** (including £72.5k GiA and £17k Local Levy) is given to implement Natural Flood Management and Sustainable Drainage features to reduce flood risk to Lindow Community Primary School and surrounding residential properties in Wilmslow. This project provides around £970k of benefits over a 50 vear appraisal period and provides a 50 vear



New Years Flooding Event - GMMC



Rainfall



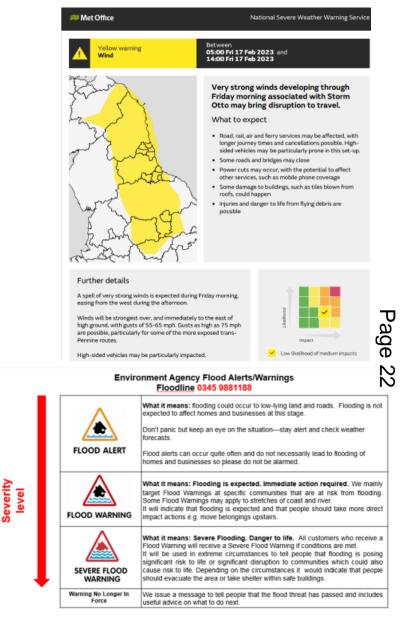
A map representing the total rate of rainfall over the 24hr period from 17:00 31/12 to 01/01



Incident Response

During a Flood Event, we:

- Receive Weather Warnings from the Met Office.
- Run Forecast weather through Hydrological flood models to determine Best Estimate and Reasonable Worse case forecast scenarios
- Hold Flood Advisory Service (FAS) Telecoms with Resilience forum to disseminate intelligence
- Attend command structures and give technical advice on Flood Warnings and operational response and potential impacts
- Issue Flood Alerts & Warnings using Flood Warning System - telephone system, text and internet, partners, media etc
- Operate flood control structures and pumping stations
- Clear debris from channels, screens and culverts on main rivers and monitor/repair stressed defences
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Post Flood

Post-Flood, we:

 Undertake post-flood data collections. Community Support Officers advise communities on how to proceed, closely liaising with Local Authorities.
 Support Multi Agency Flood Drop-ins follo

flooding

- We have supported communities across Poynton, Little Bollington, Bollington, Wilmslow, Church Minshull and Nantwich
- Advice ranges from insurance requests, possibly grants form Government, future flood risk, potential short-term mitigation.
- Input to LLFA's section 19 Reports
- Working collaboratively with partners on potential solutions







Capital Programme Update

Since Last year :

LACPA post co-ordinating and assisting Business case approval and admin. Assist CE on Capital Projects delivery (add pics)

Cheshire East Project Delive	ry 24 to 25					
	Funding	Business	Properties Better	Constn.		
Scheme name	amount/source	Case	protected	date	Comments	- 77
Ryles Pool (Hobson St), Macclesfield Phase 1	£143k FDGiA, £120k LL, £10k CE	FBC	11 props	Nov-24	Phase 1 completed but culvert failure lead to withdrawal of phase 2 funding application	Page 24
Lindow Primary School	£30k LL, £15k CE, FDGiA £60k	OBC Oct 2024	1 school, 3 props	Aug-25	Refresh bid for £60k FDGiA.Unsuccesful.	
Wilmslow & Weston Skate Park, Macclesfield.					Unlikely to progress at the moment due to resources.	
Calveley QW	£20k LL	Oct-24	Business, railway line, A road, 1 prop	Mar-25	High level carrier to reduce flooding on A51, Local business's and railway	



Future Capital Programme

- Current six-year capital investment programme will end a year early
- government deciding on the 2026/27 programme and beyond as part of the next spending review
- Partnership funding rules to be reviewed
- Overall funding bid from the EA and other RMA's far exceeded the available budget for 2025/26



	GiA Funding	Local Levy
Lindow Primary School FAS	£0	£30k (FY24/25)





Partnership Working

Since Last year:

Monthly Operational meetings with UU and CE, where detailed operational works are progressed. (E.g. Calveley, Fulshaw Park, Wynbunbury). Review, check actions, agree investigations, raise new issues, for operational response.

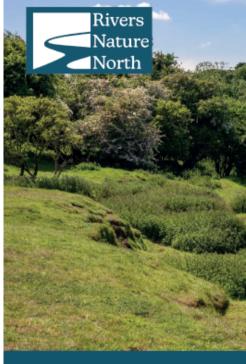
A B	С	D	E	F	G	Н
Site Issue / Postc	ode UU		Comments	Date of Action	Act	
Name 🖵	Enginee		v	v		v
			El lost an attenuation para sonte (in 1997). CE lost an attenuation pond (got filled in) 2 Bechwood Dirve, Congleton (CW12 2NQ) has experienced Foul flooding and is still living in the pub - needs to be checked.			
		05.01.2024	Survey was completed, few props have built over the culvert. Residents are wanting CE to upsize the cculvert but there is a property built above and CE do not have the funding at present. Lots of SW going into the UU network as it is foul only. No solution art present, no contacts to either UU or CE for a while. The is also a pond slightly further up that has had levels raised oit cant hold any water any more and pools down the road.			
Yew Tree -	Mike	19.07.2023	Raised with CE to remove the gully connections.	19.07.2023	Colin	Colin to send over the location of the gullies to be removed
Highway	Mounsey		Site visit hopefully next Thursday			and to arrange a site visit.
Drains				19.07.2023	Guy	Raise for the gullies to be removed
		05.01.2024	CE have done a project and removed 2x Highway Gullies from foul system but havent connected them into the culvert. Resident has called in since and said that there is a big puddle due to the gullies not being connected. Rebecca said that when they were on site they said there was another outfall so they have tapped into that - this could be blocked	05.01.2023	Guy	Catch up with team to understand the connection
		05/07/2024	Gulleys disconnected from sewer have not been connected back into anything.	05/07/2024	Cheshire East	CE - To investigate potential misconnections
					Jake / Mike	JH/MM - To update with investigations
Valley Road, Wistaston	Amy Tonner	19.07.2023	Number 14 has 4 guilies outside to try and handle overland flow but the guilies cannot control the flooding, number 14 has repeat internal flooding, next door is also slightly higher so the flows from next door also flow into number 14. They are 3rd generation of flooders. CE want to do a quick win bid for property level resilience and want to install flood doors. System here is combined. DNM monitor in MH 8402. Could be a highway drain that the guilies have been connected too. There is a pub opposite that hasnt seen any internal flooding so indicates that it may not be an issue with the combined sewer but more likely to be with the guilies/highway drains.	19.07.2023	Amy	Amy to check the DNM monitor in MH 8402 (Woodside Lane) for potential spikes
		05.01.2024	CE - Quick win bid approved for the property level resilience - £10k			
		10/05/2024	Mitigation funding has been sanctioned but the money has gone to Cheshire East pot and they are trying to retrieve the money from the CE pot. Legal conversations about the indemnity insurance so need to iron a few things out before they are installing. Being manufactured and installed by Whitehouse. Guaranteed for 12 months.			
		05/07/2024	Whitehouse are booked up programme until Nov 25. CE considering other options to try and on the work completed at an acting date CE to living with local excidence on potential acting	05/07/2024	Cheshire East	To liaise with legal department on potential options and



Natural Flood Risk Management

Since Last year:

Climate resilience. Increase flood awareness work. Continue to work on NFM locations. Working with landowners, on encouraging NFM (via CaBA)





Rivers Nature North

Cows to Coast NFM

Cows to Coast aims to work with landowners in rural Cheshire to restore natural processes which will reduce flood risk and help increase climate resilience.

The project seeks to deliver NFM interventions on the ground. These can include leaky woody barriers, tree-planting, hedge rows planting, areas for temporarily storing flood peaks, soil aeration, and ponds.

As well as flood risk and climate resilience benefits, NFM schemes can also deliver BNG, habitat creation, community well-being benefits, and improve water resources.

This project seeks to develop a programme of work alongside partners to use private finance to uplift existing funding streams and provide capital funding to deliver more NFM schemes across Cheshire.

Nature North

Map

Purpose

© David Brown, Environment Agency

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Benefits

Drivers

Context



27 **Project Location:** Cheshire **Lead Organisation:** Mersey Forest **Main Partners:** Environment Agency, Community Forest Trust, CabA (Weaver Catchment Partnership)



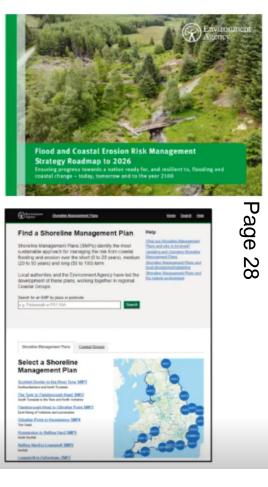
National Assessment of Flood Risk

- Updating our current and future understanding of flood and erosion risk are requirements of our 'Strategic Overview' duties and key commitments in the statutory FCERM Strategy
- Publishing 2 significant improvements in mapping and communicating our flood and coastal erosion risk information:
 - 1. New National Flood Risk Assessment (NaFRA2)
 - 2. Updated National Coastal Erosion Risk Map (NCERM)



National Flood and Coastal Erosion Risk Management Strategy for England

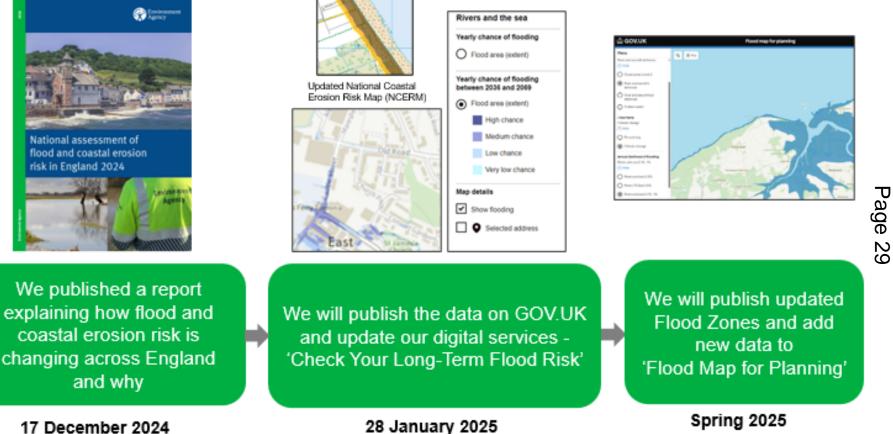






National Assessment of Flood Risk

How are we making the new information available





17 December 2024

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United Utilities

March 2025

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Water for the North West

Craig Connor	County System Performance Manager
Emma Birch	Area Engagement Lead, Cheshire

Building a plan for the North West

7.3 million people and 200,000 businesses	Industrial heritage and Victorian infrastructure	Challenges facing
		A growing 1 million
Rainy, hilly region so water stored mainly in reservoirs	12% of households affected by water poverty	population the next
29 designated bathing waters	34% of land in the region has environmental protection	Climate change More se
Annual water runoff 28% more than rest of country	54% of sewer system is combined, with 2,200 storm overflows	Diverse communities Communities
		Growing expectations next 30 y

g our region





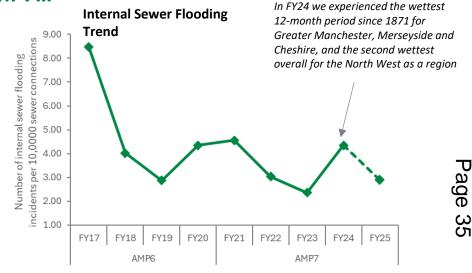
Blockage & Internal Sewer Flooding: Performance

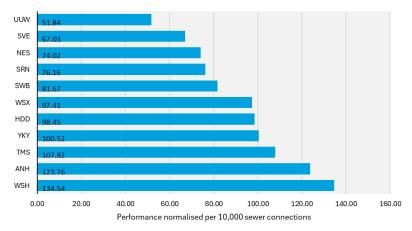
Internal Sewer Flooding is a particular challenge for UU as the North West receives 40% more urban rainfall than the industry average and has the highest percentage of combined sewers in the industry.

However, we have made progress in reducing incidents over the course of AMP7...

- We are forecast to achieve a **36.7%** reduction in internal sewer flooding incidents over AMP7 (FY21 to FY25) – however this measure is highly sensitive to extreme weather;
- We are once again set to achieve our **best ever performance** for sewer blockages, putting us on track to retain our industry leading position;
- We estimate that our dynamic network management (DNM) ٠ initiative alone has enabled us to avert over 500 internal sewer flooding incidents since its implementation in FY23.

Count of INCIDENT ID	Column Labels												
Row Labels	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Grand Total
FY21	318	304	332	249	257	250	306	304	323	402	339	406	3,790
FY22	349	338	272	276	256	290	234	215	317	310	304	310	3,471
FY23	302	337	280	243	234	220	263	288	287	395	345	384	3,578
FY24	294	268	260	259	207	215	232	214	272	315	309	325	3,170
FY25	280	235	208	202	173	186	205	235	279	314	307		2,624
Grand Total	1,543	1,482	1,352	1,229	1,127	1,161	1,240	1,256	1,478	1,736	1,604	1,425	16,633
Best	294	268	260	243	207	215	232	214	272	310	304	310	3,170
Average	316	312	286	257	239	244	259	255	300	356	324	356	3,502
Worst	349	338	332	276	257	290	306	304	323	402	345	406	3,790
	•								•				
Best ever													





FY24 Blockage performance

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AMP7: What have we implemented so far?



Images - partial blockages proactively identified and resolved through DNM.

Implementation of our dynamic network management (DNM) operating model – Installation of over **17,500** intelligent sensors, allowing us to proactively detect, and be alerted to blockage formation, such that our teams can intervene to clear the blockage before flooding occurs

Since its launch, DNM has proactively detected over 5,500 blockages!

Ongoing regional 'Stop the Block' and 'What not to Flush' customer awareness campaigns, as well as local targeted hotspot campaigns

Partnership with ECAS, conducting **over 20,000 site visits** to high-priority food service establishments since Oct 2019, preventing an estimated **3,372 tonnes** of fats, oil and greases entering the sewer!





Delivering upgrades to the local sewer network in Cottam, Preston

- We have invested over £35 million in our 'hydraulic flood risk resilience' schemes to reduce the impact of hydraulic incapacity through cut and pump solutions as well as planned installation of 9,945 m3 of storage by the end of AMP7;
- We've also deployed over **1,400** property-level flood mitigation devices

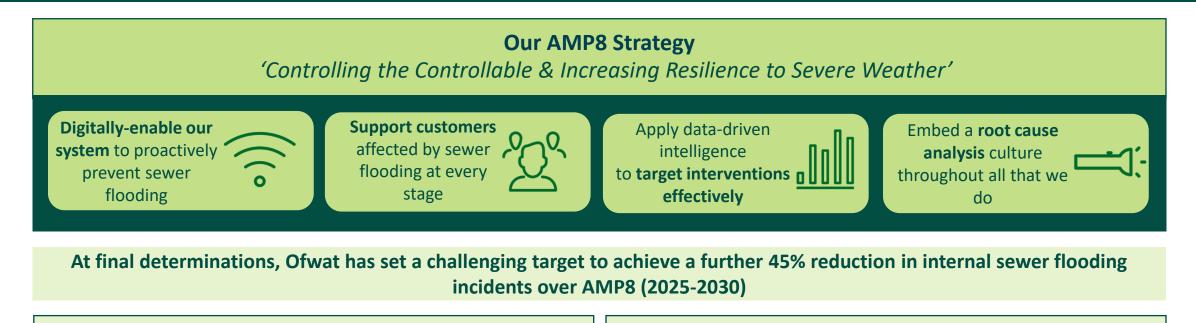
Internal Sewer Flooding: Customer Response

Whilst our priority is preventing incidents, where incidents do, unfortunately, occur, we ensure our response is swift and empathetic.

- Over the past 12 months, our average time to respond to customers experiencing internal sewer flooding was 2.57 hours, down from 5.02 hours in the previous 12-month period. This is despite some significant storm events;
- **75-80%** of our incidents are resolved on the first visit;
- Our latest (Q2 of FY25) C-MeX results place us 1st place for wastewater customer experience - The range of company WaSC scores was 88.78 to 61.42 with only 4 companies achieving a score in the 80's;
- We have **monthly executive-level** meetings to review our worst served customers for sewer flooding to drive mitigation/resolution;
- Business wide **repeats steering group** to learn the common themes of failure to prevent repeats and first-time incidents.



We know we can do more: Looking ahead to AMP8



Controlling the Controllable

- An enhanced targeting programme proactive inspection and sewer rehabilitation in postcodes of high flooding and other causes (FoC) risk;
- Improving operational intelligence through expansion of DNM principles, including trialling reactive sensor deployment following first time incidents to prevent repeats;
- Targeted customer awareness campaigns in areas of misuse

Increasing Resilience to Severe Weather

- We are seeking to introduce a dedicated funding pot for worst served customers, to be managed by our executive, to trial solutions where resolution has been cost prohibitive historically;
- Establishment of a dedicated emergency fund for customers experiencing sewer flooding who may not have household insurance in place – eligibility criteria are being established;
- Expansion of our property-level flood mitigation programme

Progress, key updates & partnership working

Progress since last year

- Improved collaboration on key issues and willingness to work together
- Regular operational and strategic meetings covering breadth of topics
- Strengthened working relationships at various levels

Partnership working on recent flooding incidents

- Aston Flooding
 - o Jointly attended residents meeting after escalated complaints to both CEC & UU CEOs, MPs and Councillors
 - Guarantee given by our CEO to meet and listen to residents & be readily accessible to customers and stakeholders
 - Explained UU assets overwhelmed in periods of heavy rain and challenges to resolve

Key updates

- Some projects from last year still ongoing:
 - Calveley flooding progress being made given the complexities
 - Hobson St/Ryle St recharge still outstanding

Upcoming projects

Upcoming projects

- Opportunities in Crewe nature-based solutions, sustainable drainage
 - \circ $\,$ Positive discussions have taken place
 - Next steps include a mapping exercise of planned projects for CEC, UU, Crewe Town Council
- Combined sewer overflow spills reduction plan (2025 2030)
 - Investing in 23 overflows in Cheshire East
 - Investigations highlighting cases where there are flows we are not bound to receive
 - Expect to find more of these so need a clear plan on how to deal with these
 - o Important that this issue is understand as a risk by all local authorities
- Chancel Lane UU scheme to reduce combined sewer overflow spills and improve river water quality
 - Requires culvert disconnection culvert connected into our combined system increasing spills downstream
 - Discussed solution at both operational & strategic meetings
- Integrated Water Management Plan
 - Early discussions around an integrated water management plan for Cheshire approach in place in Greater Manchester Combined Authority and MOU recently signed with Liverpool City Region

Any questions?





Water for the North West

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