

Digital and Environment

Wednesday 17 September 2025









Climate Change, Adaptation & Building Resilience

Worcestershire County Council

Chris Riley Highway Operations Manager







Adverse Weather – emerging trends

Heat and extreme temperatures

High winds

Ice, snow and extreme cold

Rain and flooding

Met office weather warnings

And

Named storms













Main river flooding impacts in Worcestershire

River Severn

Bewdley

Worcester

Upton Upon Severn

Key highway network impacts *

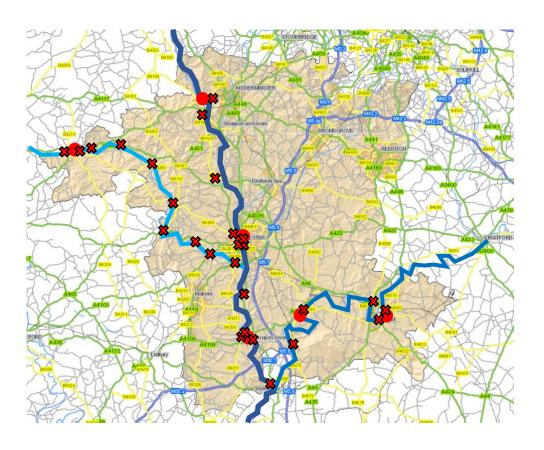
River Avon

Evesham

Pershore

River Teme

Tenbury Wells

















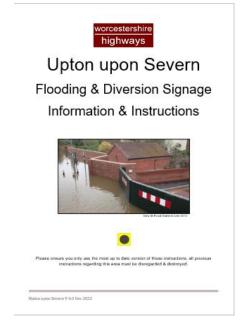
Planning and preparation

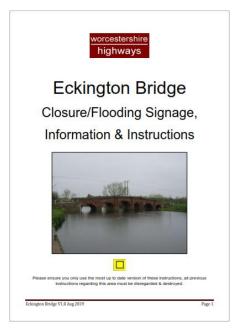
Emergency management protocol – Setting out the approach the management of emergency events

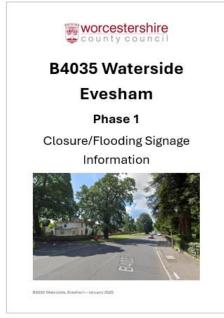
Flood action plans – Bespoke action plans for specific locations known to cause significant network issues

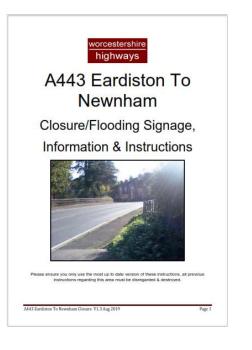












Annual

Event 2025





Planning and preparation

Emergency management protocol – Setting out the approach the management of emergency events

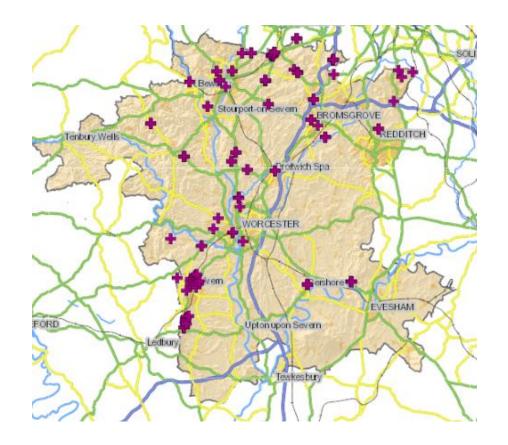
Flood action plans – Bespoke action plans for specific locations known to cause significant network issues

Scheduled and event prompted maintenance – Critical maintenance activities



Scheduled and event prompted maintenance

Monthly trash screen clearance









Planning and preparation

Emergency management protocol – Setting out the approach the management of emergency events

Flood action plans – Bespoke action plans for specific locations known to cause significant network issues

Scheduled and event prompted maintenance – Critical maintenance activities

Pre-placement of assets – flood skips containing signs barriers and other TM required for specific action plans





Operational preparedness – Pre-season

- Pre-season review A review of all after action wash-ups from previous season's events with staff and contractor.
- Pre-season training Training for all out of hours duty managers and officers as well as staff who provide support during weather and emergency events. Includes Policy, process and practice.
- Pre-season training of operatives essential for communication of any changes to know action plans and to provide context to actions.





Operational preparedness – Pre-event and during an event

- Phase 1 Initial co-ordination meeting between Operations Manager/Head of Highway Operations and reactive team leaders to assess risk level. Generates initial update for contractor and reactive team.
 Typically 2-5 days from event
- Phase 2 Identification of initial resource requirements. Decision to defer planned work to free up operative resource. Prepare initial work and rest schedules for WCC staff. Typically 1-2 days from event.
- Phase 3 Daily review of resourcing requirements for staff, plant and equipment. From day 1 of event and until end of the recovery (phase 4).
- Phase 4 Recovery, usually around 3-5 days but can vary Note: The recovery phase is often overlooked from a resource perspective yet is often critical from a reputational perspective











Management of a flooding event

Emergency GIS (EGIS)

- Plotting and recording of incidents, actions and diversions.
- Plotted river levels and river level trends
- Generate road closure and opening reports
- Access to flooding WebCams and traffic signal cameras
- Track WCC assets (gully emptiers etc.

Situation Reporting (SitRep) Tool

Adverse weather update

Collating information from EGIS to present available information

Provides a customisable summary and narrative and sends information by email to set and customisable address list













Emergency GIS (EGIS)

Management of road closure information

- Over 50 pre-plotted road closure locations including plotted diversion routes
- Option to plot bespoke closures and diversion
- Auto generates TMA forms to our street works team
- Generate reports quickly to show current road closures and roads recently reopened

Λ D	Data from Worcestershire County Council's Information on this page will auto-update every minute							
	<u>Highway</u>	<u>'s Maintenance Em</u>	<u>iergency GIS</u> Filte	r by date ra	ange: Fro	m: To:	Go	Clear
current Emergency and Fixed Road Closures								
<u>Type</u>	Close Date	Closure Name	<u>Locality</u>	Created By	Reason	<u>Comments</u>	<u>Alert Message</u>	TMA Closure
Fixed	05/09/2025 08:55:00	B4196 Holt Heath To Shrawley	B4196 SHRAWLEY, SHRAWLEY	criley	Flood	Test	B4196 Holt Heath To Shrawley Is Closed Follow Signed Diversion	<u>File</u>
Fixed	05/09/2025 08:55:00	Upton On Severn Hanley Rd	HANLEY ROAD, UPTON UPON SEVERN	criley	Flood	Test	Hanley Rd B4211 Upton on Severn Closed Between Hanley Rd Car Park & Brotheridge Green Ln U61203 Junction, Follow The Solid Black Circle Symbol Diversion Route	<u>File</u>
Emergency	10/08/2025 17:00:00	ST ANDREWS STREET	DROITWICH SPA	bsparrow	Police Request	Large Fire at Raven Hotel	St Andrews Road Droitwich Closed due to building fire	<u>File</u>
mergency	10/08/2025 17:00:00	ST ANDREWS STREET	DROITWICH SPA	bsparrow	Police Request	Large Fire at Raven Hotel	St Andrews Road Droitwich Closed due to building fire	<u>File</u>
mergency	25/09/2024 16:45:00		Not Found	bsparrow	Accident	RTC with car and building		<u>File</u>
mergency	24/09/2024 18:30:00	ST ANDREWS STREET	DROITWICH SPA	bsparrow	Debris	Raven Hotel		<u>File</u>
mergency	26/02/2024 10:00:00	MITTON STREET	STOURPORT ON SEVERN	bsparrow	Debris	collapsed / leaning private wall		<u>File</u>
mergency	19/02/2024 10:30:00		Not Found	bsparrow	Land Slip	retaining wall and adjacent garden slippage		<u>File</u>
mergency	08/02/2024 16:35:00	RESERVOIR LANE	WORCESTER	criley	Land Slip	Collapsed private wall blocking road and bank unstable		File

Number of currently closed roads = 9





Emergency GIS (EGIS)

WebCams

- Placed at strategic locations
- Remote monitoring
- Reduces requirement for site attendance
- Real time information 24/7
- Traffic signal cameras in city centre

















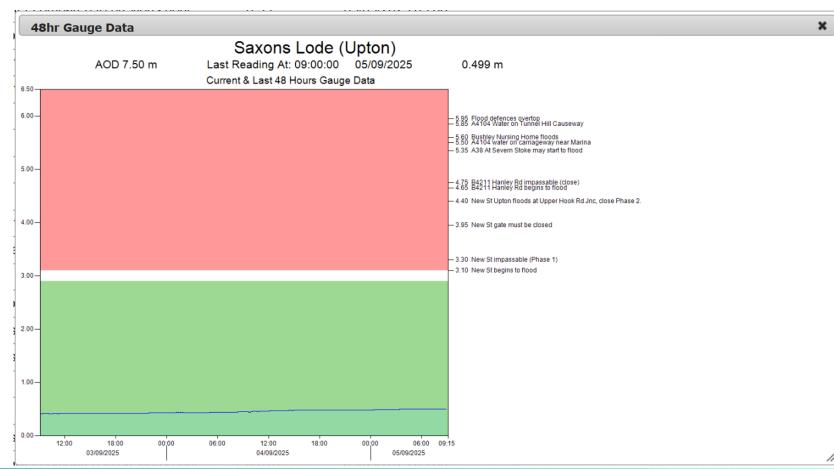




Emergency GIS (EGIS)

River gauge levels

- All data taken direct from EA sources
- Custom Summary tables to show trends
- Custom alert levels specific to highway asset risk
- Custom graphs to shown threshold for action and impact on highway network





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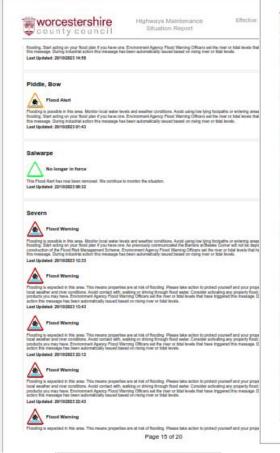
Situation reports (SitRep)

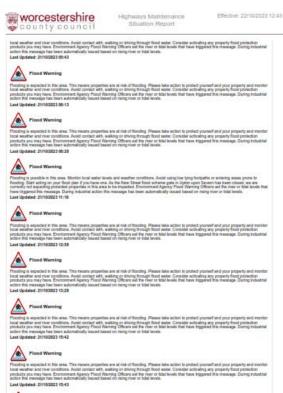
- Road closure summary
- Flood gauge summary
- Web Cam images
- Other information like current EA flood warnings

worcestershire council



Emergency GIS (EGIS)





Plooding is expected in this area. This means properties are at risk of flooding. Please take action to protect yourself and your property and monitor

Digital and Environment











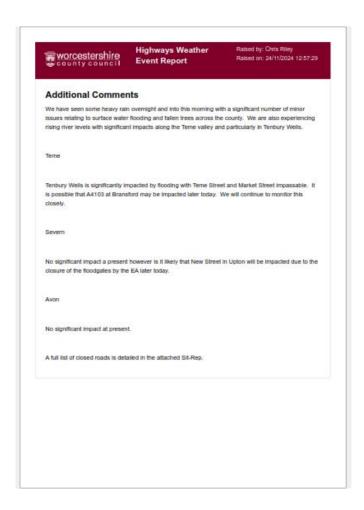






Adverse weather dashboard

- Web based dashboard
- Generates a proforma front sheet
- Incudes details of levels of resources deployed
- Provides opportunity for narrative and not just data
- Summarises actions taken and planned future action
- Allows for management of expectation.
- Provides platform to attach other documents and then email to pre-set groups ie. Members and partner organisations





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Post event

- Immediate wash up and review within 10 days
- Annual review prior to pre-winter training session for all duty staff and others involved in support of emergency events





Questions