

STAFFORDSHIRE LOCAL FLOOD RISK MANAGEMENT STRATEGY

2022-2027



We have a clear vision for Staffordshire - an innovative, ambitious and sustainable county, where everyone has the opportunity to prosper, be healthy and happy.

OUR VISION

We oversee local flood risk in Staffordshire.

Local Flood risk means flooding from ordinary watercourses, surface water and groundwater.

Whilst other Risk Management Authorities are responsible for or oversee other sources of flooding (for example main rivers or sewers), we continue to work with them in terms of understanding asset creation, inspections and maintenance, and in relation to flood events and collaborative working.

Our vision for managing local flood risk is rooted in 3 fundamental principles:

1. To meet statutory duties under the Flood and Water Management Act 2010
2. To work with others to ensure flood risk is not made worse through future planning and to maximise opportunities to reduce and manage flood risk better
3. To align our functions with national priorities and our Strategic Plan

This Strategy aims to ensure that flood risk in Staffordshire is reduced by maximising opportunities through innovative, ambitious, and sustainable means.



OUR ROLE IN MANAGING LOCAL FLOOD RISK

We will continue to:

- Build up our understanding of flood risk through flood investigations, asset mapping and studies
- Ensure we respond to major planning applications, review land drainage consents and undertake land drainage enforcement as appropriate
- Seek and secure funding for flood alleviation schemes
- Work with partners to improve flood risk in Staffordshire

What has changed since the last Strategy?

We have seen numerous flood events occur. We have experienced overlapping floods so that whilst some communities may be just recovering from flooding, other communities are experiencing flooding. We think long-term when managing flood risk and climate change is expected to increase the duration and intensity of rain in the coming decades. The good news is that Central Government capital funding is available for flood alleviation schemes in addition to other funding sources (e.g. Local Levy, Community Infrastructure Levy). Therefore, we must better understand our flood risk so that we can actively pursue solutions working with others to maximise the best possible outcomes for the people of Staffordshire.

WHO WE WORK WITH

Whilst we manage local flood risk, there are many other sources of flooding and there are various organisations who oversee or manage those sources.

We work closely with all these different organisations and each have their own role to play.

We work closely with Emergency Planners and the Civil Contingencies Unit to ensure plans are in place for flood response and recovery.

We will continue to work closely with communities as key partners in decision making.

We also work with riparian owners. We do not own watercourses (apart from where we own the land). Riparian owners own watercourses and have certain rights and responsibilities.



Roles and responsibilities for flood risk management

Risk Management Authority	Operational level role
Environment Agency	Main Rivers e.g. Severn, Trent Reservoirs (regulation role)
Lead Local Flood Authority (Staffordshire County Council)	Surface water Groundwater Ordinary Watercourses (consenting and enforcement)
District and Borough Councils	Ordinary Watercourses (works)
Internal Drainage Board(s)	Ordinary Watercourses in Internal Drainage Districts
Water Companies	Public Sewers
Highways Authorities	Highway drainage

OUR APPROACH TO MANAGING FLOOD RISK

We will manage flood risk through a detailed action plan, which is Appended to this Strategy. This sets out all the things we wish to achieve against our Objectives.

We want a shared vision that sees our staff using all their experience and expertise to work with communities and partners to reduce the impacts of flood risk in Staffordshire. Flooding can be a traumatic experience and both technical and people skills are essential. Our staff and elected members, other organisations and communities all bring their own knowledge and experience to the table. We want that table to be full of fruitful, practical solutions.

We wish to **protect** properties from flooding (for example through planning and flood alleviation schemes) and work with others to help people better **plan, respond** and **recover** to flooding.

This Strategy will not be effectively delivered by organisations working alone. We need individuals, communities, the third sector, businesses, farmers, land managers and infrastructure providers to contribute to planning and adapting to future flooding. (Source: Environment Agency FCERM Strategy).

The following Sections outline our Objectives. These are:

1. To improve our understanding of flood risk and be prepared for flood events
2. Manage Flood Risk and New Development in a sustainable manner
3. Seek and secure funding for flood alleviation schemes and work with partners
4. Work with others to ensure communities are more aware, informed and resilient to flooding
5. Promote effective management of drainage and flood defence systems

OBJECTIVE 1: IMPROVE OUR UNDERSTANDING OF FLOOD RISK AND BE PREPARED FOR FLOOD EVENTS

Why is this important?

- To help draft up plans for flood emergencies
- The Flood & Water Management Act 2010 requires us to keep a flood risk register
- We need to understand where our priority areas of flood risk are so we can maximise our ability to secure funding and yield the greatest positive effect.
- Agencies help to protect, respond and recover to flooding and this is best achieved in partnership

How are we going to achieve this?

- Improve our flood investigations process which prioritises based on flood impact and time since flood.
- Work with partners to map and update key flood assets
- Undertake a detailed analysis of communities at risk within Staffordshire
- Outline a process for improving local flood risk management asset surveys
- Staff collaborate regionally and nationally to understand best practice and innovation

FLOOD INVESTIGATION CRITERIA

- We have a duty under Section 19 of the Flood and Water Management Act to investigate flooding. We enact this duty when the following criteria are met:

- Five or more residential properties are reported to have been internally flooded during a single flood event in one location;
- Two or more business properties are reported to have been internally flooded during a single flood event in one location, or;
- One or more items of critical infrastructure are reported to have been adversely affected during a single flood event in one location, or;
- One or more properties are reported to have been internally flooded more than once in a five-year period

OBJECTIVE 2: MANAGE FLOOD RISK AND NEW DEVELOPMENT IN A SUSTAINABLE MANNER

Why is this important?

- We have a duty to provide comments as a statutory consultee in the planning process for all Major Development in Staffordshire
- It is important we do not make future flooding any worse in Staffordshire
- Increasing our presence at Strategic Planning stage raises the prospects of safe and sustainable development and maximises opportunities to reduce flood risk elsewhere

How are we going to achieve this?

- Provide quality timely statutory comments to major planning applications
- Ensure our Suds Handbook is up-to-date and complied with
- Provide quality timely comments for strategic planning in terms of constraint and opportunity mapping

FLOOD REDUCTION SCHEME IN LICHFIELD

We worked with a developer and their agents in Lichfield to implement a drainage strategy that significantly reduced the flood risk downstream to properties. We were able to claim these properties nationally as having reduced flood risk and most of the work was undertaken by the developer. It is important development is safe to future users, sustainable and does not increase the flood risk to others but development can also be seen as an opportunity to reduce flood risk elsewhere.

OBJECTIVE 3: SEEK AND SECURE FUNDING FOR FLOOD ALLEVIATION SCHEMES AND WORK WITH PARTNERS

Why is this important?

- £5.2 Billion of Central Government funding has been announced nationally.
- Partners have flood risk programmes and joint projects means more viable or better schemes.
- Taking a joined-up approach to flood risk management means more consistency for the people of Staffordshire.
- It is important we have aligned objectives to maximise the potential to access funds.

How are we going to achieve this?

- Understand and pursue all potential sources of funding
- Work with partners to share objectives and work programmes
- Pursue collaborative and partner working in all things where feasible
- Work with communities to develop Flood Alleviation Schemes
- Prioritise nature-based solutions

FLOOD ALLEVIATION SCHEME IN CHESLYN HAY

We worked with Severn Trent Water Limited to develop a flood alleviation scheme in Cheslyn Hay. We secured £270k of Central Government funding and Severn Trent Water also contributed financially. This work consists of sewer upgrades, highway drainage upgrades, property protection measures, and possibly open space storage. To date we have significantly reduced the flood risk to 13 properties with a further 19 properties due soon.

OBJECTIVE 4: WORK WITH OTHERS TO ENSURE COMMUNITIES ARE MORE AWARE, INFORMED AND RESILIENT TO FLOODING

Why is this important?

- Environment Agency guidance suggests resilience is the capacity of people and places to plan for, better protect, respond to and recover from flooding.
- Many people are still not aware they flood, let alone be resilient to flooding.
- Flood risk can only at best be minimised so we need to think widely about how we work with others and communities to better manage flood risk.
- Improved sustainable outcomes are possible if communities and risk management Authorities work together

How are we going to do achieve this?

- Secure approximately £6m central government innovation funding, leading and working with regional partners and implement the "FAIR Project".
- Develop a suite of actions for all those at risk of flooding, including better communication and warning systems for local flood risk
- Work with communities most at risk to bring about innovative solutions to reduce flood risk
- Recruit and train officers and work with the third sector and universities to actively engage with communities

FAIR PROJECT (FLOOD AWARE, INFORMED & RESILIENT)

Staffordshire County Council was successful in its bid to be allocated £6m Flood and Coastal Risk Innovation funding from Defra managed by the Environment Agency. The FAIR project will address **Flood** risks, by providing greater **Awareness** to flood information, creating better **Informed** communities and contributing to improved **Resilience**. The project will pursue a legacy of actively resilient communities which are more prepared and equipped to manage the effects of a changing climate now and in the future. The project will embrace a definition of resilience that aims to *improve the ability of residents, businesses and communities across Staffordshire to maintain living standards, health and financial security, in respect of flood risk now and in the future, with the capacity to manage change and with the frameworks to support medium- and longer-term prospects.*

OBJECTIVE 5: PROMOTE EFFECTIVE MANAGEMENT OF DRAINAGE AND FLOOD DEFENCE SYSTEMS

Why is this important?

- We have a duty under the Water Management Act 2010 and the Land Drainage Act 1991 to determine land drainage consents for specific works within the channel of an ordinary watercourse
- We also have permissive powers to undertake enforcement where the flow of an ordinary watercourse is significantly restricted where appropriate
- As lead local flood authority it is important we work with partner organisations (namely the Environment Agency, water companies, Sow & Penk IDB) to understand how they are managing flood risk and how we may work better

How are we going to do achieve this?

- Undertake effective enforcement as required
- Work with HS2 limited which is likely to generate a significant number of consent applications
- Regularly meet with partners formally and informally, strategically and operationally, to share information, knowledge and experience.

HS2 FLOOD CONSENTS

Land drainage Consent is required where any structure that acts as a mill, weir, dam or other like structure crosses an ordinary watercourse, or where a watercourse is to be culverted, either temporarily or permanently. In general we are against culverting for various practical and environmental reasons but exceptions are made where a new access is required for example. We look at proposed works to ensure flooding is not adversely affected as a result. HS2 railway works will generate lots of consentable activities either directly or for enabling works. We have worked in detail with HS2 regarding flood risk and proposed works. As planning moves to construction, more consents will be required from us.

APPENDIX A: ACTION PLAN

This action plan sets out both county wide measures and specific actions which we will pursue to mitigate and reduce the risk of flooding within Staffordshire.

Our ability to deliver these actions will be influenced by the availability of funding from government and other sources. To mitigate this risk we will continue to explore opportunities for further collaborative working with Staffordshire County Council and other organisations.

We have taken a proportionate approach to focus effort and investment to deliver actions where they will be most effective. Some measures will be most effective where they are developed over the long term and delivered across the whole county. For example, policy or education measures work best at this scale. Some measures, however, may be location specific and will work best when delivered at a ward, parish or community scale.

Table 1, describes the general, long term or policy measures that we have put in place to achieve our objectives. There are a number of measures already being delivered that will reduce or manage flood risk and these have been included in the table. The Action Plan sets out how and when we will deliver these actions and an annual monitoring report will be produced.

The Action Plan includes:

- Objective: the relevant LFRMS objective
- Actions to be taken to deliver our objective
- Partners to deliver the action
- Status:
 - **Continue** to carry out existing role in the future
 - **Develop** and expand upon existing roles or increase existing service area

- **Establish** a new role or service area
- **Achieved:** action is already achieved
- Timescale for delivering the action

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
1. Improve our understanding of flood risk and be prepared for flooding	Identify key communities at risk by using a more detailed approach than previous versions and look to understand vulnerability to flooding as well as hazard.	LLFA to lead	Establish	Ongoing – to complete by 2023
	Investigate flooding incidents, working with all RMAs and local communities. Keep flood incident data up to date and share this information with other Risk Management Authorities	LLFA to lead	Continue	Ongoing
	Extend Section 19 investigations to include frequent internal property flooding to one or more property.	LLFA to lead	Establish	Complete
	Produce a refined procedure for flood investigations to include triage which incorporates impact of flooding and time since flood and which balances the need to understand flooding with fairly investigating in a timely manner.	LLFA to lead	Develop	To be developed in 2022/23.
	Produce local flood risk management plans for high priority locations. These will identify who the key partners are, the levels of flood risk and what actions can be taken at a local level.	LLFA to lead	Establish	To be developed in line with Objective 4.

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	<p>Improve evidence, information, and mapping and modelling tools to understand better the risks of flooding and to support better decisions and greater resilience. Make flood risk information more accessible, taking account of social and technological change and opportunities, such as the increasingly widespread use of social media.</p>	<p>Environment Agency to lead for Main River LLFA to lead for surface water, Ordinary Watercourses and groundwater</p>	<p>Develop</p>	<p>Ongoing</p>
	<p>Work with the Environment Agency to implement the Humber Flood Risk Management Plan and update the Staffordshire Preliminary Flood Risk Assessment</p>	<p>LLFA to lead on PFRA LLFA to work with Environment Agency on Humber FRMP</p>	<p>Develop</p>	<p>PFRA to be updated in 2023 Humber FRMP to be completed by 2023.</p>
	<p>Work with the Staffordshire Local Flood Resilience Forum to inform flood preparedness, response and recovery planning, including the delivery of strategic and operational flood exercises where practical This also includes working with partners to improve communications and advice given during a flood event.</p>	<p>LLFA, Environment Agency, Severn Trent Water, United Utilities</p>	<p>Continue</p>	<p>Ongoing and monitored through a joint LLFA work plan with regular meetings</p>
	<p>Support the Local Resilience Forum to plan for, respond to and recover from flood events. The Staffordshire Civil Contingencies Unit co-ordinates all partners that have a role in preparing for, responding to and recovery from emergencies, including flooding. Their work includes:</p> <ul style="list-style-type: none"> • Maintaining the Multi-agency Flood Plan (MAFP) • Producing Tactical and Community Flood Plans • Using flood risk data from LLFA and EA to risk assess flooding in Staffordshire and publicise on Staffordshire Community Risk Register (reviewed quarterly) • Multi-agency exercising of response to flood events – currently biannual 	<p>Staffordshire Local Resilience Forum</p>	<p>Continue</p>	<p>Ongoing</p>

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	<ul style="list-style-type: none"> Supporting actions of LRF partners to prepare for and respond to flood events (ongoing) and Providing warning and informing to the public (as and when appropriate) 			
	Work with local communities to develop Local Flood Action Plans, seeking community involvement in local monitoring and maintenance of assets. This includes engaging with communities to raise awareness of the drainage assets in their area to ensure they are better prepared for future flood events.	LLFA	Continue	Timescales linked to FAIR project (Objective 4).
	Maintain, and where possible, seek to improve accuracy of flood forecasting and warning where these services currently exist. Investigate the feasibility of expanding the forecasting and warning service in communities at high fluvial flood risk where no service currently exists.	Environment Agency	Develop	Long term. Links to FAIR Project (Objective 4).
2. Manage Flood Risk and new development in a sustainable manner	Support the development of sustainable rural communities by helping to make businesses more resilient to flooding and supporting the Staffordshire Rural Strategy.	LLFA	Continue	Ongoing
	Seek the inclusion of Sustainable Drainage Systems wherever possible within new developments, by developing the resources, processes, systems, guidance and documents needed as Statutory Consultees on surface water drainage.	LLFA to lead, working with Local Planning Authorities and other consultees including the Environment Agency, IDB and water companies	Continue	Ongoing
	Keep Sustainable Drainage System (SuDS) handbook up-to-date and ensure developers and their agents comply with this. Link to this: Staffordshire SuDS Handbook	LLFA	Continue	Ongoing
	Regarding Sustainable Drainage Systems, respond to planning applications within 21 days as Statutory	LLFA	Continue	Ongoing

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	Consultee and encourage developers, statutory consultees and local planning teams to work closely with the LLFA from the outset since sustainable drainage systems will have a bearing on site layout.			
	Regarding river flood risk, respond to planning applications within 21 days as Statutory Consultee to avoid inappropriate development in areas of flood and coastal erosion risk and seek opportunities to reduce existing and future flood risk through new and future development plans.	Environment Agency	Continue	Ongoing
	Work with Local Planning Authorities to assist with the development of planning policies, site allocations and identification of future infrastructure needs. Ensure both restraints and opportunities are considered.	LLFA, Environment Agency, United Utilities, Severn Trent Water, IDBs	Continue	Ongoing, Local Planning Authorities in Staffordshire are at different stages in developing these
	Work with local communities to support the development of Neighbourhood Plans	LLFA, Environment Agency	Continue	Ongoing
	Work with developers and Local Planning Authorities to secure appropriate connections to the sewer network, taking account of sewer flooding issues	Severn Trent Water, United Utilities	Continue	Ongoing
	Respond as a non-statutory consultee to planning applications where relevant and where resources allow	Sow and Penk IDB	Continue	Ongoing
	Work with Highways Partners through the Strategic Infrastructure Plan to ensure flood risk and sustainable development are incorporated and integrated with wider County interests.	LLFA	Establish	Ongoing
3. Seek and secure funding for flood alleviation schemes	Work in partnership with other Risk Management Authorities to deliver flood alleviation schemes on a six-year rolling programme.	LLFA, Environment Agency lead	Continue	Ongoing

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
and work with partners	Maximise external fundraising opportunities for all projects such that more flood risk management projects can be delivered in the long term. This includes contributing to local strategic growth initiatives such as Local Enterprise Partnerships (LEPs). This can be developed through a funding strategy for each scheme	LLFA, Environment Agency	Establish	Ongoing relating to scheme progress in the six-year programme
	Work with local communities to develop Flood Alleviation Schemes, where feasible, that meet local needs and integrate wider benefits where possible for the community e.g. environmental enhancements, supporting the rural economy. This will be developed through a Communication Plan for each Flood Alleviation Scheme.	LLFA, Environment Agency	Continue	Ongoing relating to scheme progress in the six year programme
	Work with other RMAs in partnership where there are interactions with the sewer network to deliver schemes on a five-year rolling programme through the Asset Management Plan cycle (currently AMP7 2020-2025).	Severn Trent Water, United Utilities lead	Continue	Ongoing
	Raise awareness of the roles of all Risk Management Authorities and work in partnership with others to take a joined up and risk-based approach to flood risk management	LLFA, Environment Agency, Severn Trent Water, United Utilities, Sow and Penk IDB, District and Borough Councils, Highways Authorities	Develop	Ongoing
	Support the delivery of the County Council's Climate Change Strategy and work with other Risk Management Authorities to support the delivery of their climate change objectives	LLFA	Develop	Ongoing
	Work with Infrastructure Plus, the Councils Highways Delivery Partnership to integrate programmes of work	LLFA	Develop	Ongoing and monitored through a

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
				joint work plan with regular meetings
	Work with landowners, communities, Parish Councils, Wildlife Trusts, the National Farmers Union (NFU), Country Land and Business Association (CLA) and other similar organisations to promote changes in agricultural land management practices, which can improve water quality, reduce the impact of flooding and provide opportunities to incorporate ecological benefits. This can be undertaken on a case by case basis, through specific Risk Management Authority work programmes and through seeking to deliver a Staffordshire Natural Flood Management Project.	LLFA, Environment Agency, Severn Trent Water, United Utilities	Develop	Ongoing
4. Work with others to ensure communities are more aware, informed and resilient to flooding	Support communities at risk in fast responding catchments prone to flash flooding through identification of Rapid Response High Risk Surface Water Catchments and rapid response catchments for river flooding and follow up actions	Rapid Response High Risk Surface Water Catchments led by LLFA Rapid Response River catchments led by Environment Agency	Continue	Ongoing
	Support the development of sustainable rural communities by helping to make businesses more resilient to flooding and supporting the Staffordshire Rural Strategy.	LLFA	Develop	Ongoing
	Engage with communities to raise awareness of the drainage assets in their area to assist those communities to be better prepared for future flood events. Encourage communities to take a more pro-active role in flood monitoring and maintenance works;	LLFA	Develop	Ongoing
	Work with flood risk partners to engage local communities on sewer misuse (which causes many sewer	United Utilities, Severn Trent Water, LLFA	Continue	Ongoing

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	flooding issues) and to deliver a joined up programme of Property Level Protection.			
	Trial rainfall alerts in certain areas linked to community plans that enable communities to be better able to prepare and respond to flooding.	LLFA	Establish	Ongoing
	Secure central government funding for FAIR innovation project	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	By End of 2022
	Agree board structure for FAIR Project (Strategic and Operational Board) and implement	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To be completed by mid-2023.
	Develop a web interface for all sources of flood risk that covers Staffordshire	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To be completed in 2023
	Scope options to improve communications for flooding from all sources	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To be completed in 2023.
	Actively engage with key communities at risk in Staffordshire to bring about innovative solutions working with communities and relevant organisations to make them more resilient	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To start 2023

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	Trial surface water forecasting in certain areas	LLFA, other LLFAs, and Environment Agency	Establish	To start 2024
	Establish Community Flood Plans working particularly with the CCU to ensure this work aligns with their tasks to establish community flood plans and tactical flood plans.	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To start 2023
	Install Machine Learning linked to forecasting to improve automation of flood risk activities linked to debris screens.	LLFA to lead with Environment Agency, Civil Contingencies Unit, other LLFAs, third sector, universities.	Establish	To start 2024
	Recruit new Flood risk Engagement and Delivery team	LLFA to lead with other LLFAs working with third sector and universities	Establish	To complete in 2023
5. Promote effective management of drainage and flood defence systems	Use permissive powers to manage the watercourse network, by consenting to works, taking a risk-based approach to enforcing landowner responsibilities and raising awareness about these responsibilities	LLFA, Environment Agency, Severn Trent Water, United Utilities, Sow and Penk IDB, District and Borough Councils, Highways Authorities	Continue	Ongoing
	Update and improve the Asset Register, establish regimes to share information with other Risk Management Authorities. Gain an improved understanding of the interactions between the various drainage systems and the condition and location of historic assets, particularly culverted watercourses. The register should integrate into existing Council systems and be used to work with local communities and other RMAs to inform future inspections, maintenance and investment needs.	LLFA	Continue	Annual updates to Project Plan

Objective	Actions to be taken to deliver our objective	Partners	Status	Timescale
	Minimise the risk of flooding to properties by maintaining current levels of flood risk management within areas at risk of flooding from Main Rivers that already benefit from river flood defences, subject to available funding. Continue appropriate levels of river and watercourse maintenance, subject to available funding.	Environment Agency	Develop	Ongoing
	Maintain the public sewer network. The water companies maintain their system on a planned and cyclical basis and also respond reactively where there are issues, such as blocked sewers.	Water Companies (Severn Trent Water, United Utilities)	Develop	Ongoing and monitored through a joint work plan with regular meetings
	Maintain the Ordinary Watercourse network in the Sow and Penk IDB area around Stafford as appropriate.	Sow & Penk IDB	Develop	Ongoing
	Work with the Staffordshire Local Flood Resilience Forum to inform flood preparedness, response and recovery planning, including the delivery of strategic and operational flood exercises where practical. This also includes working with partners to improve communications and advice given during a flood event.	LLFA, Environment Agency, Severn Trent Water, United Utilities	Continue	Ongoing and monitored through a joint LLFA work plan with regular meetings

Table 1: Actions to be taken to deliver our objectives