

## Part 1: Flood-Related Questions and Answers

### 1. What are your respective roles with regards to flood risk management? How do you help fulfil the principles and objectives of the Leicestershire Local Flood Risk Management Strategy?

#### Answer

The Environment Agency is the strategic flood risk management authority in England. It functions at a strategic, regulatory, operational and advisory level.

The Environment Agency has a strategic overview role for all sources of flooding and coastal erosion risk across England. It sets the National Strategy for flood risk management and provides national flood risk assessment and mapping.

It has permissive powers to undertake the operational management of flood risk from main rivers and reservoirs. This includes activities such as flood forecasting, issuing flood warnings, maintaining and operating flood risk assets, incident response and developing and delivering flood risk management projects. We also provide specialist planning advice to Local Planning Authorities to help ensure flood risk is appropriately considered through the planning process.

The Environment Agency administers Government funding for flood risk management programmes and projects.

A Lead Local Flood Authority is usually a county council or unitary authority responsible for managing local flood risk, including flooding from surface water, groundwater and ordinary watercourses (such as streams, ditches and culverts). LLFAs develop local flood risk management strategies, investigate significant flood events, maintain registers of flood risk assets, and coordinate local flood risk management across partners. They are also statutory consultees on major planning applications in relation to surface water drainage and sustainable drainage systems (SuDS)

The Environment Agency works closely with Leicestershire County Council in its role as Lead Local Flood Authority and supports the principles and objectives of the Leicestershire Local Flood Risk Management Strategy through;

- Providing technical expertise, evidence, mapping and modelling, including climate change projections, to improve understanding of current and future flood risk
- Maintaining and improving the Flood Warning Service and supporting local resilience and emergency planning arrangements
- Working with partners to identify, develop and deliver flood risk management projects that reduce risk to people, property, infrastructure and the environment
- Working with partners to secure funding and investment for flood risk management schemes and wider environmental improvements

- Supporting sustainable development by providing advice on flood risk and climate change through the planning process to ensure future risks are understood and considered in decision making
- Promoting nature-based solutions that can help slow the flow of water, improve habitat connectivity, enhance biodiversity and build resilience to the impacts of climate change

Through these activities, the Environment Agency helps to deliver the Local Flood Risk Management Strategy's aims of understanding and managing flood risk, promoting partnership working, supporting sustainable development, improving community resilience and adapting to the impacts of climate change.

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## **2. How are main rivers such as the River Soar managed and maintained with respect to flood risk? Are there long term management and maintenance plans in place?**

### **Answer**

The Environment Agency has permissive powers to carry out maintenance work on Main Rivers where there is a clear flood risk management benefit. On the River Soar, this includes maintaining and operating a range of flood defence assets, carrying out routine inspections of those assets, monitoring and inspecting Environment Agency owned weirs, undertaking public safety risk assessments of our flood defence assets where they are publicly available, removal of blockages that have the potential to cause a flood risk and controlling invasive species such as floating Pennywort.

Maintenance activities are prioritised according to the level of flood risk, the condition and performance of assets, environmental considerations and the benefits delivered to local communities. Not all sections of Main River are routinely maintained, and maintenance is targeted where it provides the greatest benefit in reducing flood risk.

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## **3. Storm Henk in January 2024 and January 2025 major flooding events. What lessons have been learnt and what is being done to prepare for future winters?**

### **Answer**

We know how devastating flooding is, which is why improving resilience of people and communities is our top priority.

Storm Henk highlighted the significant impact that prolonged and intense rainfall can have across river catchments, particularly where river levels are already elevated following successive periods of wet weather. It also reinforced the growing challenge of managing flood risk in a changing climate, where severe rainfall events are becoming more frequent and can affect multiple communities simultaneously.

We continue to review flood event information, recorded impacts and the performance of our assets following significant incidents to improve our understanding of flood risk and identify opportunities to strengthen future resilience.

In response to the increasing challenges posed by future flood risks we have replaced our previous flood warning service on GOV.UK with a more advanced, user-focused and resilient

solution. The newly titled 'Get flood warnings' service will continue to provide timely and accurate flood warning messages to those at risk. It will incorporate modern technology to better meet the needs of the public, businesses, organisations and emergency responders, ensuring improved accessibility, reliability and responsiveness during flood events.

Following the recent flood events experienced in Leicestershire over the previous years we have reviewed and validated all the flood warnings issued to assess whether improvements could be made to their timeliness and accuracy. We have now implemented these improvements where possible by altering thresholds at which they are issued and improving the impact information in the warning.

We are prepared to take action this winter and have staff on standby 24/7/365 ready to warn and inform, operate our assets, and manage flood risk for the communities we serve.

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#### **4. What is being done to improve the provision and accuracy of flood alerts and warnings?**

##### **Answer**

Our flood warning thresholds and spatial extents are reviewed when new flood models are delivered and following flood events.

We use:

- River gauge data.
- Forecasting information.
- Flood impact information.
- Intelligence from partners and flood wardens.

Since 2022, nine new warning schemes have been introduced across Leicester and Leicestershire, including Leicester City, Syston and Sileby.

Additional schemes are planned for:

- Quorn Brook at Quorn.
- Wash Brook at Oadby.
- Gaddesby Brook catchment.

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#### **5. Loughborough has been identified as the community at highest risk of flooding in the East Midlands. How is the Wood Brook project progressing? What is being done to assess and manage flood risk from the River Soar via the Grand Union Canal?**

##### **Answer**

The Wood Brook project passed Gateway 2 (Outline Business Case approved) in April 2025. Since then, the project team have been working to complete all preliminary work to progress towards detailed design of the preferred way forward (purchase and conversion of Nanpantan reservoir for flood storage). This has included updates to the Wood Brook hydrology & hydraulic model, which has proved problematic (discrepancies between model outputs versus recent

event history). We are currently finalising the latest revisions to the hydraulic model and anticipate results and subsequent economic assessment to be available by end of September. This will then allow the project way forward to be confirmed and programme dates to be updated.

Meanwhile, assuming Nanpantan reservoir remains the primary preferred way forward, current forecast programme dates are as follows:

- Gateway 3 (Full Business Case approval) - March 2028
- Construction Phase – June to December 2028

For flood risk from the River Soar, via the Grand Union Canal, we have investigated the flood risk benefit a flood gate on the Grand Union Canal provides. Initial modelling has shown this provides a benefit to the areas previous flooded during Storm Henk and January 2026 (Staveley Court and Bottleacre Lane area). Next steps are to work with Canal & Rivers Trust to investigate the feasibility of the proposed location on the canal and determine the costs to establish if a scheme is economically viable.

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**6. As a possible flood mitigation measure, are there any plans to lower levels of local reservoirs such as Swithland Reservoir and could this protect communities such as Quorn?**

**Answer**

The Environment Agency has no current plans to lower levels in local reservoirs, including Swithland Reservoir, which is located upstream of Quorn.

Swithland Reservoir is an active drinking water supply reservoir owned and managed by Severn Trent Water. Decisions regarding reservoir operating levels and water resource management are the responsibility of the reservoir operator and would need to be considered by Severn Trent Water, taking account of water supply, reservoir safety, environmental requirements and any wider impacts.

To determine whether lowering a reservoirs level could provide a significant reduction in flood risk would depend on a range of factors, including the reservoir's design, available storage capacity, the timing and scale of flood events, and the characteristics of the wider catchment. Any assessment would require detailed technical analysis, hydraulic modelling and supporting evidence.

The Environment Agency will continue to work with Severn Trent Water and other partners to improve understanding of the relationship between the reservoir and flood risk in Quorn, and ensure future decisions are informed by robust evidence.

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**7. What are your mitigation and adaption plans in respect of the impacts of climate change?**

Climate change is a key consideration in the Environment Agency's evidence base to flood risk management and water resources planning. The latest climate change allowances are incorporated into our hydraulic modelling and flood risk studies to understand how changing

rainfall patterns, more frequent extreme weather events and rising temperatures may affect rivers and local communities in the future.

This evidence is used to inform investment programmes, flood defence schemes, operational activities and spatial planning advice provided to planning authorities and developers. It is also used to identify pressures on water resources and supports long term planning to manage the impacts of climate change on water availability, river flows and drought risk, whilst balancing the needs of public water supply, agriculture, industry and the environment.

We are already seeing the impacts of climate change in the UK and around the world, which is why urgent action is needed to adapt the impacts of climate emergency at the same time as reducing emissions.

### **8. Is the increased attention on water quality affecting focus upon managing flood risk?**

#### **Answer**

No, the EA has specific teams that focus on the different challenges of flooding and that of water quality. There has been an increase in the resources directed to solve the water quality issues and no change to the resources focussed on the flood issues.

### **9. Are connections from new developments affecting flood risk from the existing public sewer network?**

#### **Answer**

The National Planning Policy Framework (NPPF) makes clear that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Where avoidance isn't possible, the NPPF requires that development is designed to be safe for its lifetime without increasing flood risk elsewhere and, where possible, reduce flood risk.

The Environment Agency is a statutory consultee in the planning process and is consulted by Local Planning Authorities for applications which fall within Flood Zone 2 and 3 or within 20 metres of the banktop of any Main River.

The remit for assessment of surface water flood risk sits with the Lead Local Flood Authority who are a statutory consultee on 'major' development and provide comments on surface water drainage proposals.

### **10. Would lowering the water level of the River Soar and Trent up to Cromwell Lock during January and February alleviate flooding? Would lowering weirs in regularly flooded sections reduce flood risk?**

#### **Answer**

Across large river catchments such as the River Soar and River Trent, flooding is primarily driven by the volume and rate of water entering the river system during prolonged or intense rainfall events. The effectiveness of lowering river levels is therefore dependent on a range of factors

including the scale of the flood event, catchment conditions, river channel capacity, downstream constraints and the operation of existing structures.

Flood events affecting Leicestershire are often the result of significant flows generated across a large catchment area. During major flood events, the volume of water entering the river network can greatly exceed the amount of storage that could be created through routine adjustments to river levels. As a result, lowering river levels in advance of winter would not necessarily prevent flooding during larger events and would need to be carefully balanced against impacts on navigation, water resources, environmental habitats, infrastructure and other river users.

Similarly, permanently lowering weirs can reduce normal water levels upstream and may create some additional channel capacity. However, this does not automatically translate into a significant reduction in flood risk. The benefits vary considerably from location to location and can diminish during larger flood events when river flows exceed the capacity of the channel regardless of the starting water level.

In addition, lowering a weir could increase flood risk elsewhere or create unintentional environmental impacts. For this reason, flood risk management decisions are informed by detailed evidence and hydraulic modelling rather than applying a single solution across a wide catchment.

The Environment Agency uses data to assess a wide range of options for reducing flood risk and experience shows that the most effective long-term approach is typically a combination of measures, including flood defences, natural flood management, property flood resilience measures, flood warning services and community preparedness, tailored to the specific characteristics of each catchment and location.

## Part 2: Water Quality Questions and Answers

### 1. What are your respective roles and responsibilities in regard to river, water course, water body quality and water resource management within the water/river sector?

#### Answer

The Environment Agency has a broad role in protecting our rivers, lakes and water bodies:

- We monitor the health of England's water environment.
- We identify actions to improve their condition.
- We regulate activities that could impact their condition.

We regulate discharges, including those from water companies, and work with partners and customers to reduce pollution from activities within the catchment to protect and improve the overall condition of this precious resource.

As well as looking after water quality and habitats, we regulate water resource abstraction licences to improve the use of available water. We are currently in drought, and this is a high-priority work area for us.

Our aim is to achieve clean and plentiful water for people, businesses, agriculture and the environment and this is articulated through the Government's 25-year plans and our vision EA2030.

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**2. Please set out local Leicestershire context, facts and figures, different metrics, historic trends, sources of pollution, relative contributions, how data is gathered and collated.**

**What is the current chemical and ecological status of Leicestershire rivers, water bodies and water courses? Why is this and what are the key risks?**

**Answer**

The Environment Agency monitors the environment by collecting and analysing water and ecology samples and carrying out ecological surveys at numerous locations. We use this information for water environment classifications which can be complex. Classifications involve hundreds of different measurements covering water quality, wildlife, habitats, water quantity and chemicals.

Classification data is only one part of the evidence we use. We combine it with a wide range of environmental information and local knowledge to understand pressures in a catchment, identify future risks, decide where action is needed and evaluate whether interventions are working.

We also publish information on the reasons waters are not achieving good status, the causes of deterioration and the measures needed to improve them through the Catchment Data Explorer.

The reasons for not achieving good status within Leicestershire include:

- Barriers for fish (e.g. weirs)
- Physical modification such as flood structures
- Invasive non-native species
- Poor nutrient, livestock and soil management
- Sewage discharges from treatment works and storm overflows
- Sewer misconnections
- Trade and industry discharges
- Transport drainage and urbanisation

We use complex water quality modelling such as SAGIS/SimCat to estimate the relative contributions from different sectors.

Water body classifications are built from assessments of many individual elements, including:

- Fish
- Plants
- Invertebrates
- Water quality indicators

The classifications follow the "one out, all out" principle whereby the lowest-scoring biological element determines the overall classification.

Of the 780 elements assessed, 68% are classified as Good or High in Leicestershire.

The key pressures include:

- Sewage discharges
- Agricultural pollution
- Physical modifications
- Invasive species
- Urban runoff

The Environment Agency uses this information to focus investment and enforcement activity.

### Chemical Status

Since 2019 all water bodies fail chemical status due to revised assessment methods and the inclusion of four groups of ubiquitous persistent pollutants:

- PBDEs
- Mercury
- PAHs
- PFOS/PFAS

This does not necessarily indicate deterioration in other chemical parameters. The table below shows the reductions in orthophosphate for example.

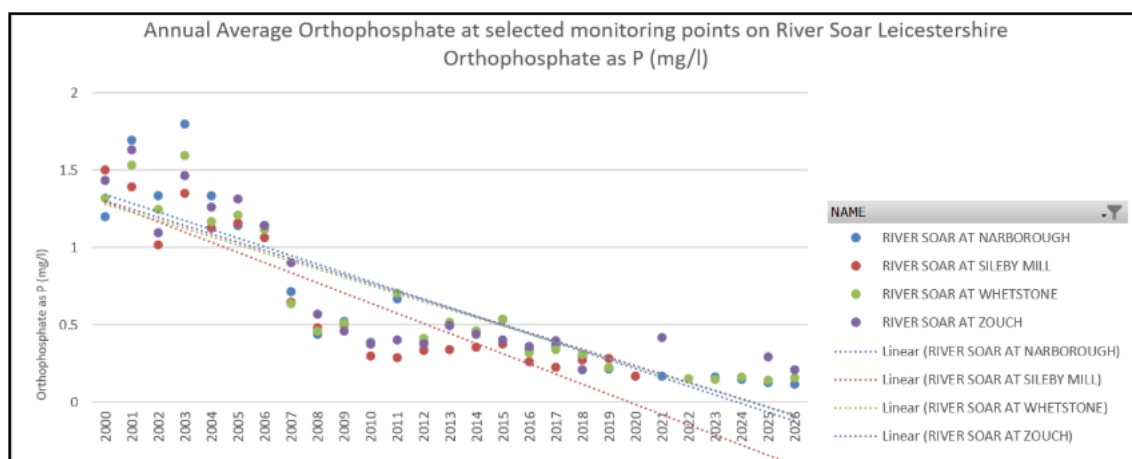


Figure 1 demonstrates significant reductions in orthophosphate concentrations within the River Soar between 2000 and 2026, largely due to water company investment delivered through WINEP programmes.

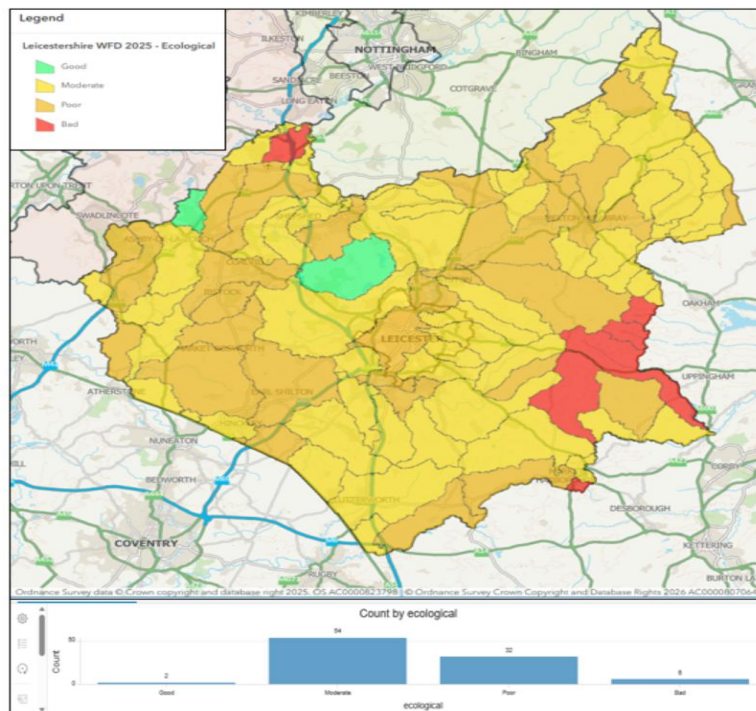


Figure 2: Leicestershire 2025 WFD Ecological classification

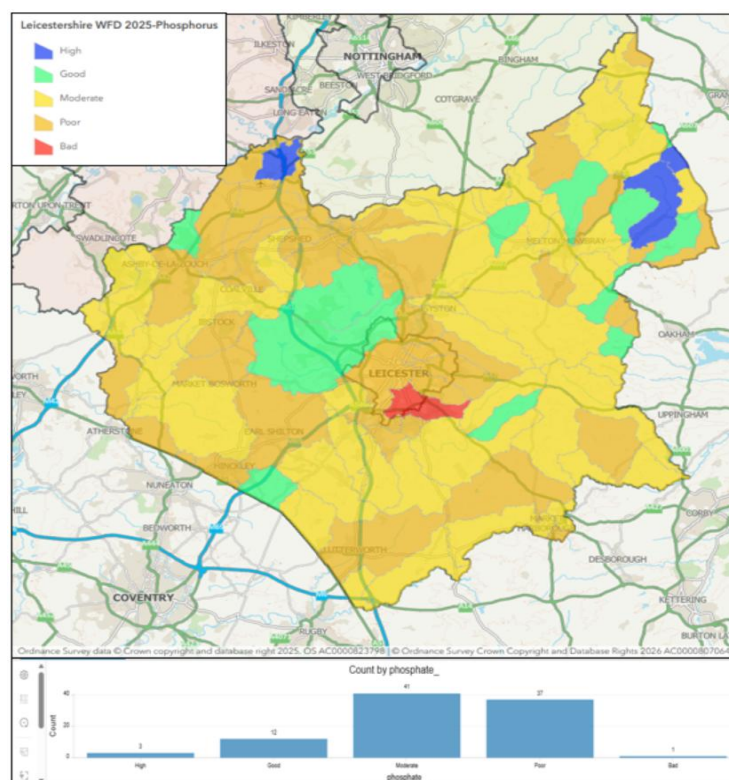


Figure 3: Leicestershire 2025 WFD Phosphate classification

|          |      |      |
|----------|------|------|
|          | Pass | Fail |
| Chemical |      | 100% |

| Status     | High   | Good   | Moderate | Poor   | Bad   | Total   |
|------------|--------|--------|----------|--------|-------|---------|
| Ecological | 0.00%  | 2.13%  | 57.45%   | 34.04% | 6.38% | 100.00% |
| Phosphorus | 3.19%  | 12.77% | 43.62%   | 39.36% | 1.06% | 100.00% |
| Ammonia    | 68.09% | 19.15% | 10.64%   | 1.06%  | 1.06% | 100.00% |
| Fish       | 19.15% | 11.70% | 12.77%   | 9.57%  | 5.32% | 58.51%  |

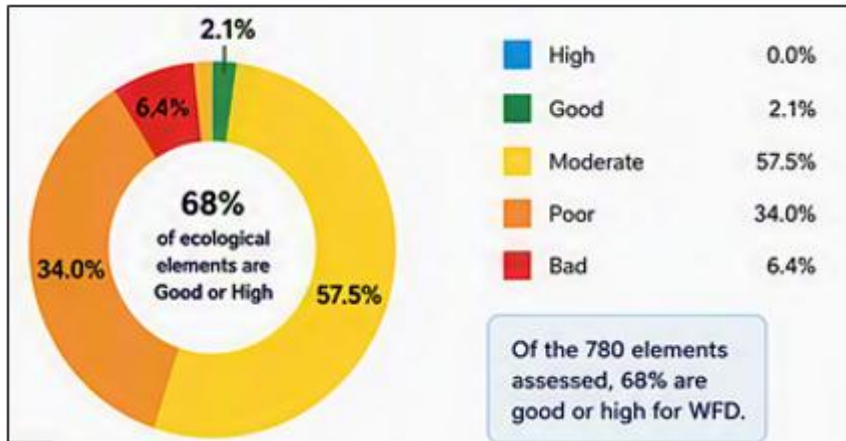


Figure 4: Leicestershire Rivers WFD Ecological classification percentage breakdown

|            | High | Good | Moderate | Poor | Bad | Total |
|------------|------|------|----------|------|-----|-------|
| Ecological |      | 2    | 54       | 32   | 6   | 94    |
| Phosphorus | 3    | 12   | 41       | 37   | 1   | 94    |
| Ammonia    | 64   | 18   | 10       | 1    | 1   | 94    |
| Fish       | 18   | 11   | 12       | 9    | 5   | 55*   |

Figure 5: Leicestershire 2025 number of rivers by WFD classification by selected elements. \*39 waterbodies not assessed for fish

|          | Overall WFD | ecological | chem_cerita | chemical_c | ammonia | phosphorus | fish_class | invertebra | macroalga | macrophyte | phytoplank | acid_neutr | ammonia_p | biological | dissolved | dissolved_1 | phn_class | phosphate | salinity_c | temperature | Total |     |     |
|----------|-------------|------------|-------------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|-----------|------------|-----------|-------------|-----------|-----------|------------|-------------|-------|-----|-----|
| High     | 0           | 0          | 0           | 0          | 0       | 0          | 18         | 22         | 0         | 0          | 1          | 0          | 39        | 64         | 26        | 0           | 48        | 94        | 3          | 0           | 74    | 389 | 50% |
| Good     | 0           | 2          | 0           | 0          | 0       | 0          | 11         | 42         | 0         | 0          | 10         | 0          | 0         | 18         | 6         | 0           | 24        | 0         | 12         | 0           | 18    | 141 | 18% |
| Moderate | 56          | 54         | 0           | 0          | 0       | 0          | 12         | 24         | 0         | 0          | 45         | 0          | 0         | 10         | 5         | 0           | 12        | 0         | 41         | 0           | 2     | 151 | 19% |
| Poor     | 32          | 32         | 0           | 0          | 0       | 0          | 9          | 2          | 0         | 0          | 29         | 0          | 0         | 1          | 1         | 0           | 9         | 0         | 37         | 0           | 0     | 88  | 11% |
| Bad      | 6           | 6          | 0           | 0          | 0       | 0          | 5          | 2          | 0         | 0          | 1          | 0          | 0         | 1          | 0         | 0           | 1         | 0         | 1          | 0           | 0     | 11  | 1%  |
| Totals   | 94          | 94         | 0           | 0          | 0       | 0          | 55         | 92         | 0         | 0          | 86         | 0          | 39        | 94         | 38        | 0           | 94        | 94        | 94         | 0           | 94    | 780 |     |

Investment takes time, and the environment takes even longer to recover. We know the public wants to see change faster, and we share that ambition. There is a natural lag between an improvement being delivered, an “in-river” ecological response occurring, and that improvement being reflected in a classification.

The 2025 classification assessed water quality data for the period 2022-2024. It doesn’t, therefore, reflect the impact of the most recent investment from the Water Industry National Environment Programme (WINEP) completed in 2025 (AMP7), or the current improvements that are planned for delivery between 2025 and 2030 (AMP8).

### **3. How do partners work together to reduce water pollution, improve river water quality and tackle areas of biggest concern to the public such as storm overflows, raw sewage and water leakage?**

#### **Answer**

The Environment Agency acts as the primary environmental regulator, setting and enforcing water quality standards and issuing permits. Local planning authorities control land use and development impact through local plans, while water companies operate and build infrastructure to treat wastewater and supply clean water.

#### **The Environment Agency**

- Sets and enforces environmental water quality standards for rivers, lakes, and groundwater.
- Issues and monitors environmental permits and abstraction licenses for water industry operations.
- Investigates pollution incidents, inspects treatment works, and takes legal enforcement action when rules are broken.
- Compile and produce River Basin Management Plans (RBMPs) which are legally binding frameworks updated every six years that cover [strategic environmental objectives for rivers, lakes, and coasts](#). RBMPs serve as the foundation for setting environmental permit boundaries and local development constraints.

#### **Local Planning Authorities**

- Shape local development by creating land-use plans that align with official [River Basin Management Plans](#).
- Assess planning applications to ensure new buildings do not overload local drainage or wastewater networks.
- Secure infrastructure contributions or nutrient mitigation schemes from developers to protect local water bodies.

#### **Water Companies**

- Build, run, and upgrade the physical infrastructure needed to treat sewage and supply clean drinking water.

- Manage long-term drainage, wastewater plans, and catchment solutions to reduce pollution at the source.
- Comply strictly with the legal limits and environmental permit conditions set by regulators.

#### **4. How will the water elements within the Environment Act 2021 affect future responsibilities and actions on water and river quality?**

##### **Answer**

The [Environment Act 2021](#) fundamentally shifts the management of water quality from reactive regulation to legally binding, long-term statutory targets. It codifies transparency and imposes direct, non-negotiable operational duties on water companies while strengthening the independent oversight governing the sector.

The legislation reshapes responsibilities and actions through four primary mechanisms:

##### **1. Mandatory Real-Time Monitoring (Section 82)**

The Act removes the reliance on periodic, manual water sampling, forcing water companies into an era of permanent telemetry.

- **Actions Required:** Water utilities must install continuous, automated water quality sondes upstream and downstream of all 14,000+ storm overflows and 9,000+ sewage treatment works.
- **Data Variables:** The physical infrastructure must monitor and publish real-time shifts in Dissolved Oxygen (DO), pH, temperature, turbidity, and ammonium (NH<sub>4</sub>).
- **Impact:** This creates immediate public accountability, allowing regulators to instantly trace acute pollution incidents back to specific asset failures.

##### **2. Legally Binding Nutrient Reduction Targets**

The framework moves past broad ecological aims, setting explicit, numeric pollutant limits backed by the [Environmental Targets \(Water\) \(England\) Regulations](#).

- **Wastewater Treatment:** Water companies are legally obligated to achieve an 80% reduction in total phosphorus loadings from treated sewage by 2038 (against a 2020 baseline). This requires widespread installation of chemical stripping facilities across major treatment networks.
- **Agricultural Land Use:** Responsibility is placed on the agricultural sector and environmental regulators to reduce the levels of nitrogen, phosphorus, and sediment entering freshwaters by at least 40% by December 2038.

##### **3. Statutory Duties on Storm Overflows and Drainage**

Wastewater planning shifts from a voluntary best-practice model to an explicit statutory function.

- **Asset Mapping:** Water companies are legally required to produce and maintain comprehensive [Drainage and Wastewater Management Plans \(DWMPs\)](#) to prove how they will handle climate stress.
- **Spill Eradication:** Utilities face legally binding, progressive benchmarks up to 2035 and 2050 to upgrade infrastructure near high-priority locations, such as designated bathing waters and wildlife habitats.

#### 4. Enhanced Independent Oversight & Enforcement

The Act changes the regulatory landscape by altering how public bodies and utilities are held to account.

- **The Office for Environmental Protection (OEP):** Established as a direct post-Brexit watchdog, the OEP holds the government, the Environment Agency, and public authorities legally accountable for hitting these statutory water quality timelines.
- **Abstraction Revocation:** The Environment Agency gains enhanced statutory muscle to revoke or scale back historical water abstraction licenses without paying compensation if the abstraction risks causing environmental damage or low river flows.

### **5. What is the Environment Agency doing to improve the chemical and ecological status of Leicestershire rivers to reach good standards?**

#### **Answer**

The Environment Agency has and is carrying out a broad range of activities and tasks to improve the chemical and ecological status of river:

1. Increased staffing and inspection capacity.
2. Carried out over 10,000 inspections of water company assets nationally.
3. Increased farm inspection activity.
4. Secured over 70 successful prosecutions since 2015, resulting in fines exceeding £158 million.
5. Sewage Discharge Improvements through WINEP AMP programmes:
  - £22.1 billion has been secured nationally for environmental improvements by 2030.
  - Improvements are underway at more than 130 sewage treatment works and storm overflows in Leicestershire.
  - Multiple storm overflow investigations and upgrades are being delivered.
6. Storm Overflow Discharge Reduction Plan

Targets include

#### a. Designated Bathing Waters

Target: Improve all storm overflows discharging into or near designated bathing waters and significantly reduce harmful pathogen impacts on public health by 2035.

b. High Priority Nature Sites (These include sensitive locations such as SSSIs, SACs and chalk streams).

Target: Ensure storm overflows do not cause local adverse ecological impacts.

Milestones:

- 75% of overflows affecting high-priority nature sites improved by 2035.
- All overflows affecting high-priority nature sites improved by 2045.

c. All Remaining Storm Overflows

Target: Extend improvements to all remaining storm overflows across England, regardless of location by 2050.

d. Frequency of Discharges

Target: Storm overflows should discharge no more than an average of 10 times per year (measured over a 10-year period), unless there is no adverse ecological impact.

Delivery date: 2050

Note - 3 headline targets that water and sewerage companies will deliver over the next 25 years:

- Protect the environment - demonstrate that there is no local adverse ecological impact.
- Protect public health in designated bathing waters - reduce harmful pathogens from storm overflows discharging near designated bathing waters.
- Storm overflows operate only in unusually heavy rainfall events - will not discharge above an average of 10 rainfall events per year.

## 7. Agricultural Inspections

In the last five years approximately 220 Leicestershire farms have been inspected.

The programme includes:

- Targeted farm inspections.
- Enforcement action.
- Sewage sludge regulation.
- Advice through Catchment Sensitive Farming.

## 8. The Environment Agency has also supported and delivered a programme of work across Leicestershire, including:

- Upper Soar Farming & Water for the Future, reducing sediment and nutrient runoff from agricultural land.
- River Eye restoration and sediment reduction projects, including settlement ponds and habitat improvements.
- Shared Waters / Willow Brook, delivering habitat restoration, volunteer-led water quality monitoring and pollution awareness initiatives across Leicester.
- Evington Brook restoration, including removal of concrete channel sections and habitat enhancement.

- Saving the Saffron Brook, delivering river restoration, habitat creation and public engagement.
- Cossington Meadows reedbed creation, River Soar fish refuges and wetland creation projects.
- Addressing the removal of Floating Pennywort (an invasive species) across more than 67km of the River Soar system.
- Water vole conservation and mink control initiatives across the Soar catchment.
- Wood Brook, Nanpanton, providing natural flood management and water quality improvements on farmland.
- River Wreak at Brooksby College, river restoration, habitat creation and water quality improvements which are also used to teach environmental improvement options to future land managers

**3. How many serious water pollution prosecutions were recommended in Leicestershire in the last three years and what was the success rate?**

**Answer**

One serious water pollution prosecution has been recommended in the last three years.

This relates to a sewage spill from Fingers Farm Sewage Pumping Station during September 2024.

The prosecution remains ongoing.

**4. As environmental regulator, what data for storm overflows and pollution incidents do you have and what are the reasons for incidents?**

**Answer**

Storm overflow data is submitted annually by Severn Trent and recorded through Event Duration Monitors (EDMs). The EDM data is available from 2020 onwards and can be found here: [Event Duration Monitoring - Storm Overflows - Annual Returns](#). All storm overflows will be addressed as per target dates the Storm Overflow Discharge Reduction Plan as mentioned above.

The data records:

- Validated spills.
- Duration of spills.
- Dry day spills.
- Frequency of operation.

Pollution incidents are recorded on the National Incident Recording System (NIRS).

Causes include:

- Illegal waste activities.
- Burst water mains.

- Sewer failures.
- Sewer blockages.
- Unpermitted discharges.
- Agricultural runoff.

Severn Trent consistently perform better than the industry average number of spills per storm overflow per year. These averages mask the variability with individual overflows (see table), and annual variability due to rainfall.

| Year | Industry avg spills per overflow | Severn Trent                         |                              |                                   |                                    |
|------|----------------------------------|--------------------------------------|------------------------------|-----------------------------------|------------------------------------|
|      |                                  | Severn Trent avg spills per overflow | % 10 spills or less per year | % greater than 40 spills per year | % greater than 100 spills per year |
| 2025 | 20.5                             | 15.0                                 | 55.9%                        | 10.2%                             | 0.5%                               |
| 2024 | 31.8                             | 25.4                                 | 44.9%                        | 22.6%                             | 4.0%                               |
| 2023 | 33.1                             | 24.9                                 | 48.2%                        | 22.7%                             | 4.4%                               |
| 2022 | 23.0                             | 18.4                                 | 54.2%                        | 14.4%                             | 1.5%                               |

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## 5. How do you monitor water companies and storm overflow reporting?

### Answer

The Environment Agency (EA) monitors storm overflows through a comprehensive system called Event Duration Monitoring (EDM). Every storm overflow in England features complete electronic monitoring coverage.

The monitoring process functions through a mix of telemetry data, statutory reporting, and physical on-site enforcement:

#### 1. Automated Event Duration Monitoring (EDM)

- **The Technology:** Electronic sensors (often depth or flow monitors) are installed inside the overflow structures.
- **Data Logged:** The EDM system automatically records the exact time a spill begins and the exact time it stops, tracking both frequency and duration.
- **Data Transmission:** This telemetry data is compiled by water companies, undergo quality assurance checks, and is transmitted directly to the EA.

#### 2. Statutory Annual Returns and Public Mapping

- **The Annual Return:** Water companies are legally mandated to submit their complete EDM datasets to the EA every year.
- **The EDM Data Portal:** The EA updates and maintains the [GOV.UK EDM Data Portal](#), an interactive public map. This portal allows the public, campaign groups, and researchers to track exactly when and where a storm overflow has discharged.

### 3. Targeted Risk Analysis & "Dry Weather" Auditing

- **Permit Cross-Referencing:** The EA cross-references the EDM spill data against local weather station data.
- **Identifying Illegal Spills:** Storm overflows are legally permitted to operate only during periods of heavy rainfall or snowmelt to prevent sewage backing up into homes. If EDM data shows an asset spilling on a dry day—known as a "dry spill"—the EA flags it immediately as a potential environmental permit breach and triggers a criminal investigation.

### 4. Unannounced Physical Inspections

- **Pre-Inspection Audits:** Before an officer visits a site, they pull the asset's EDM history to see its current status, spill frequency, and when it last discharged.
- **On-Site Verification:** EA inspectors conduct "no notice" site inspections. They physically check that the EDM hardware is calibrated correctly and functioning flawlessly.
- **Capacity Checks:** Inspectors verify that permitted storm storage tanks are completely full before an overflow begins spilling into a river, ensuring water companies aren't bypassing standard treatment paths prematurely.

## **6. What programmes, plans, actions and investment are being undertaken over the next five years to improve river water quality in Leicestershire?**

### **Answer**

An Asset Management Period (AMP) is a five-year regulatory investment cycle used by the UK water sector. It dictates how water companies fund and deliver major capital infrastructure projects, including water quality improvements, using money recovered from customer bills.

#### 1. Setting the Improvement Goals

- **The Drivers:** The Environment Agency (EA) establishes environmental baselines using River Basin Management Plans.
- **The Target List:** These obligations are compiled into the Water Industry National Environment Programme (WINEP), which lists every specific site upgrade a utility must deliver during the five-year block (e.g., phosphorus stripping or adding storm tank capacity).

#### 2. Business Plan Submission & Price Review (PR)

- **The Proposal:** Water companies design detailed business plans outlining how much capital investment is needed to build the assets required by WINEP.
- **The Determination:** The economic regulator, Ofwat, reviews these plans through a Price Review (PR) process (such as PR24, which set the framework for AMP8). Ofwat approves the investment efficiency and sets the maximum limits that utilities can charge customers to fund these upgrades.

#### 3. Five-Year Delivery Phase

- Capital Delivery: Once the AMP cycle begins, water companies deploy engineering teams to build the approved environmental infrastructure.
- Operational Penalties: If a water company fails to meet its water quality, spill reduction, or pollution targets during the five-year period, Ofwat and the EA impose heavy financial penalties that must be paid out of company profits, not customer bills.

#### 4. In Leicestershire:

##### **AMP7 (2020-2025)**

Anglian Water and Severn Trent completed:

- 64 improvement actions.
- Treatment works upgrades.
- Storm overflow improvements.
- More than 100 monitoring installations.

These actions reduced:

- Phosphorus.
- Ammonia.
- Biochemical Oxygen Demand (BOD).
- Storm sewage discharges.

##### **AMP8 (2025-2030)**

More than:

- 130 improvement actions at sewage treatment works.
- 140 monitoring actions.

Planned improvements include:

- Further reductions in phosphorus and ammonia.
- Reducing CSO spills to less than 10 per year.
- Ecological impact reduction.
- MCERTS-certified monitoring upgrades.

These activities support:

- Water Framework Directive objectives.
- Good Ecological Status.
- The 25 Year Environment Plan objective for clean and plentiful water.

As noted, 2025 classifications do not yet reflect AMP7 outcomes or AMP8 investments.

Other current and planned investment, which relies on various factors, including landowner agreement and available funding include:

- River restoration projects on Kingston Brook, Melton Brook, River Eye and the Willow Brook catchment.
- Leicester Parklife and Restoring the Soar initiatives, developing large-scale river restoration opportunities in urban Leicester.
- Natural Flood Management (NFM) projects at Diseworth, Willow Brook, Buckminster and across the Soar catchment.
- Watermead wetland and reedbed enhancements.
- Fish passage improvements, including work at Rothley Gauging Weir.
- Ongoing water vole recovery projects, citizen science programmes and outfall safari initiatives.

## Part 3: Generic Questions and Answers

### **6. Is there anything the County Council can do by working with partners to help address any concerns?**

#### **Answer**

A County Council (or Unitary Authority) functions as the Lead Local Flood Authority (LLFA) under the Flood and Water Management Act 2010. While they do not directly regulate water utility companies, they possess critical statutory duties and planning powers to manage local flood risks and mitigate water pollution.

#### **1. Statutory Flood Risk Management**

- **Managing Surface Water:** The council holds direct responsibility for coordinating the management of local flood risks, specifically surface water run-off, groundwater, and ordinary watercourses (like streams and ditches).
- **Investigating Flood Events:** Under Section 19 of the Flood and Water Management Act, councils are legally required to investigate significant flooding incidents in their area, publish the results, and identify which risk management authorities need to take action.
- **Maintaining an Asset Register:** They must compile and update a public register of critical structures and features (such as culverts, walls, and balancing ponds) that have a significant effect on flood risk management.

#### **2. Sustainable Drainage Systems (SuDS) Approval**

- **Enforcing Green Infrastructure:** As the SuDS Approving Body (SAB), the council evaluates major housing and commercial developments to ensure they incorporate features like permeable paving, green roofs, and detention basins.
- **Reducing Network Pressure:** By mandating that surface water is absorbed on-site rather than entering the sewer network, the council directly lowers the hydraulic load on water

company systems. This action reduces the frequency of storm overflow spills and downriver flooding.

### 3. Planning Policy and Land Use

- **Strategic Flood Risk Assessments (SFRAs):** Councils produce detailed SFRAs to map out local flood zones, ensuring new infrastructure and housing are steered away from high-risk floodplains.
- **Nutrient Neutrality and Mitigation:** In affected catchments, County Councils enforce strict planning rules requiring developers to prove a project will achieve nutrient neutrality before granting planning permission. They help coordinate nature-based wetlands or woodlands to catch agricultural and wastewater runoff.

### 4. Highway Drainage Maintenance

- **Clearing Road Assets:** County Councils manage thousands of miles of local roads. They maintain and clear highway gullies, road drains, and roadside ditches to prevent standing water from causing localized floods.
- **Preventing Runoff Pollution:** Efficient highway drainage design helps intercept heavy metals, oils, and microplastics from vehicle tyres before the contaminated runoff can wash directly into local chalk streams and rivers.

The Environment Agency has regular contact with Leicestershire County Council and feels we work well in partnership with our flood risk management colleagues to help work towards addressing challenges around flood risk for communities within Leicestershire. Working in partnership is imperative to finding effective solutions and creating wider benefits to the complex environmental challenges that we collectively face.

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## 7. What is the best way that residents can contact you to report or highlight incidents they are aware of in terms of water pollution and leakages?

### Answer

We have a dedicated free 24/7 incident reporting hotline: **0800 807060**

They can also report environmental issues or flooding online through the Gov.UK website.

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## 8. What measures are in place that provide instant action to resolve reports of sudden flooding and contamination?

### Answer

For incidents within the Environment Agency's remit, we operate a 24/7/365 response capability.

We have a KPI to attend all serious incidents:

- Within 2 hours during working hours.
- Within 4 hours outside working hours.

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**9. Is there an emergency number and standby team ready to respond instantly to such reports?**

**Answer**

We have a 24/7 incidence response capability. The emergency number is **0800 807060**.

**Flood Emergencies**

During a live flood situation, the Environment Agency (EA) acts as the primary operational and category 1 emergency responder for flooding from main rivers, reservoirs, and the sea. Their role shifts from long-term planning to immediate tactical crisis management, field operations, and public communication.

The EA helps before, during, and immediately after a flood event through four key areas:

**1. Real-Time Tracking and Public Forecasting**

- **The Flood Forecasting Centre:** In partnership with the Met Office, the EA runs a joint operations hub that translates meteorological rainfall forecasts into ground-level impact data.
- **National Mapping:** The EA publishes a rolling, [5-day national view of flood risk](#) that warns local resilience forums of incoming hazards.
- **Live Level Data:** The EA updates real-time river and sea telemetry levels online, giving communities accurate data on rising waters.

**2. Issuing Localized Flood Warnings**

The EA manages the statutory public warning framework, communicating threats directly via automated calls, texts, emails, and the media:

- **Flood Alerts:** Issued early to warn the public that flooding is *possible* and that residents should prepare bags and monitor levels.
- **Flood Warnings:** Issued when flooding is *expected*, instructing properties to install barriers and move valuables and vehicles to higher ground.
- **Severe Flood Warnings:** Issued when there is an immediate *danger to life*, alerting emergency services to begin strategic evacuations.

**3. Deploying Physical and Field Operations**

- **Defence Operation:** EA teams deploy to manually operate heavy-duty barriers, floodgates, and tidal defenses (such as the Thames Barrier or regional flood basins) to physically redirect river flows away from urban areas.
- **Asset Maintenance:** Specialist field operatives monitor river networks to rapidly clear blockages, fallen trees, and debris from trash screens and culverts before they cause upstream bottlenecks.

- **Temporary Barriers:** When fixed walls are overwhelmed or absent, the EA transports and installs heavy-duty temporary flood barriers and deploys high-volume water pumps to drain waterlogged areas.

#### 4. Multi-Agency Emergency Coordination

- **Supporting First Responders:** The EA does not have rescue powers (which belong to the police and fire services); instead, they embed tactical advisors within multi-agency command hubs. They feed live flood modeling data to emergency workers to help map out safe evacuation routes.
- **Pollution Containment:** Because floodwaters often submerge industrial sites or compromise sewage infrastructure, EA environmental officers respond to secondary pollution incidents, deploying containment booms and tracking chemical hazards washed into the environment.

### Water Pollution Incidents

When a live water pollution emergency occurs, the Environment Agency (EA) acts as the lead command authority and regulatory responder in England. The agency operates a structured, risk-prioritized deployment system to contain environmental damage and secure evidence for potential criminal prosecution.

The emergency response moves through four specific operational phases:

#### 1. Triage and Incident Classification

- **The 24/7 Hotline:** Incidents are flagged via the automated [GOV.UK Water Pollution Reporting Service](#) or the national Incident Hotline (0800 80 70 60).
- **The Duty Officer Review:** An office-based Environment Management Duty Officer (EMDO) instantly logs and categorises the report based on environmental risk.
- **Risk Prioritisation:** The EA focuses physical field deployments on Category 1 (Severe) and Category 2 (Significant) incidents. These involve major fish kills, drinking water contamination, or toxic chemical spills. Low-impact Category 3 and 4 events are logged for intelligence but rarely receive immediate on-site deployment.

#### 2. Dynamic Tactical Deployment

For serious incidents, the EMDO dispatches an Environment Management Site Controller (EMSC) directly to the scene to coordinate local operations:

- **Tracing the Source:** The EMSC tracks the pollutant plume upstream to identify the exact point of origin, such as a fractured water company rising main, a failing treatment works, or agricultural runoff.
- **Using Legal Entry Powers:** EA officers hold statutory powers under the Water Resources Act 1991 to enter private commercial or agricultural land without a warrant to stop active pollution.

#### 3. Immediate Physical Containment and Remediation

The EA does not always physically clean up the spill themselves; instead, they legally direct the polluter (such as a water utility or industrial business) to deploy emergency mitigation contractors:

- **Deploying Containment Booms:** Floating booms are pinned across rivers to trap surface-level pollutants like oils, diesel, or chemical slicks.
- **Aeration and Oxygenation:** If sewage is rapidly stripping oxygen out of the water, the EA directs the deployment of physical aerators or hydrogen peroxide dosing to stop widespread fish suffocation.
- **Bypassing and Tankering:** For active pipe bursts, water companies are ordered to deploy fleets of tankers to suck out raw sewage before it hits the watercourse.

#### 4. Evidence Gathering and Criminal Investigation

Because causing water pollution is a strict liability criminal offense, the emergency scene is handled like a crime scene:

- **Statutory Sampling:** Officers collect formal water samples upstream, downstream, and directly at the discharge point using strict legal chain-of-custody protocols.
  - **Ecological Impact Auditing:** Ecologists survey the river bed, counting dead fish and macroinvertebrates to quantify the exact scale of the environmental destruction.
  - **Enforcement Tracking:** This data is fed directly into the EA's legal division to support formal enforcement notices, multi-million pound Variable Monetary Penalties (VMPs), or full criminal prosecutions in court.
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