

What Causes Surface Water Flooding?



Surface water flooding poses a greater threat to people and property than any other form of flood risk, with over 3 million properties in England at risk. Surface water flooding can happen many miles from a river or stream often in areas where people wouldn't expect, simply because rainwater has nowhere else to go. The risk is growing as intense rainfall events become more frequent due to the effects of climate change.



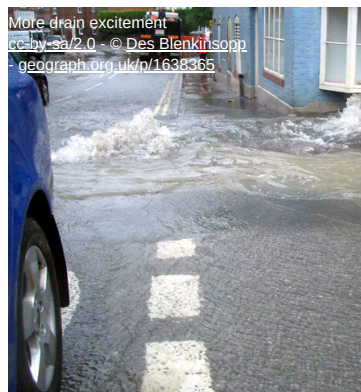
Ground Conditions

When ground conditions are dry and baked, or saturated and water logged, there is a reduced ability for the soil to absorb rainwater. This causes water to flow overland and can cause surface water flooding.



Drainage

Roadside gullies can become blocked by silt, leaves, rubbish or waste which stops their ability to drain surface water away. If surface water drains reach capacity and can't discharge quickly enough, the water backs up and surcharges causing surface water flooding.



Infrastructure & Development

Buildings, roads, car parks and other impermeable surfaces can add to surface water problems, and there is now a growing trend to dig up gardens to install driveways at the front of properties. Be aware that if the surface to be covered is more than 5m², planning permission will be needed for laying traditional, impermeable driveways that do not provide for the water to run to a permeable area.



Topography

Steep sided valleys and hills can channel large amounts of rainwater downhill to properties below, creating surface water problems. In low lying coastal areas there can be a need for storage and pumping systems to manage surface water. If capacity is exceeded and/or pumps fail, surface water flooding will be likely.